## **US 6 Bridges Design Build Project**

BR 0061-083 Sub Account Number 18838 (CN)

## **Hazardous Materials Technical Report**

Prepared for: Colorado Department of Transportation Federal Highway Administration

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## **List of Abbreviated Terms**

AST Above Ground Storage Tanks

ASTM American Society for Testing Materials

BGS below ground surface

BTEX benzene, toluene, ethylbenzene, and total xylenes

CAP Corrective Action Plan

CDOT Colorado Department of Transportation

CDPHE Colorado Department of Public Health and Environment

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CERCLIS Comprehensive Environmental Response, Compensation, and Liability Information System

CORRACTS RCRA Corrective Action

COSTIS Colorado Storage Tank Information System

CFR Code of Federal Regulations
CSEV Colorado Soil Evaluation Values

EB eastbound

EIS Environmental Impact Statement
EPA US Environmental Protection Agency
ERNS Emergency Response Notification System
FEIS Final Environmental Impact Statement

FHU Felsberg Holt & Ullevig

FHWA Federal Highway Administration

HASP Health and Safety Plan

I-25 Interstate 25

ISA Initial Site Assessment

LF Landfill

LUST Leaking Underground Storage Tank

MESA Modified Site Assessment
MCL Maximum Contaminant Level
MMP Materials Management Plan

NFA no further action
NPL National Priorities List

OPS Colorado Department of Labor and Employment Division of Oil and Public Safety

OSHA Occupational Safety and Health Administration

RCRA Resource Conservation and Recovery Act

RCRIS Resource Conservation and Recovery Information System

RI/FS Remedial Investigation/Feasibility Study

ROD Record of Decision ROD2 Record of Decision 2

ROW Right-of-Way

RTP Regional Transportation Plan

SB southbound

SWF Solid Waste Facilities

TPH Total Petroleum Hydrocarbons
TSD Treatment, Storage, or Disposal

US 6 6<sup>th</sup> Avenue

UST Underground Storage Tank

VCUP Voluntary Cleanup Programs

WB westbound

WQCD CDPHE Water Quality Control Division

## 1. PROJECT BACKGROUND

The Project includes modifications to the roadway, interchanges, and bridges along 6<sup>th</sup> Avenue (US 6) between Sheridan Boulevard and the BNSF Railway in Denver, Colorado. The Colorado Department of Transportation (CDOT) is preparing a Reevaluation and Record of Decision (ROD2) to document the impacts of and mitigation for the Project.

## 1.1 The Valley Highway Project

The Federal Highway Administration (FHWA) and CDOT prepared a Final Environmental Impact Statement (FEIS) in 2006 and a ROD in 2007 for the Interstate 25 (I-25) Valley Highway Project, located in Denver, Colorado. The Valley Highway Project includes the reconstruction of I-25 and reconfiguration of interchanges from Logan Street to United States Highway (US) 6, US 6 from I-25 to Federal Boulevard, and the crossing of Santa Fe Drive and Kalamath Street at the Consolidated Main Line railroad. The Preferred Alternative, as described in the FEIS, includes the following elements:

- I-25 Mainline: Widening of I-25 to provide a consistent section with four through lanes plus auxiliary lanes in each direction throughout the project area
- I-25/Broadway: Tight diamond interchange
- I-25/Santa Fe Drive: Single point urban interchange with a flyover ramp for northbound Santa Fe Drive to northbound I-25
- I-25/Alameda/Santa Fe/Kalamath: Offset partial urban interchange at I-25 and Alameda Avenue;
   Santa Fe Drive and Kalamath Street grade separated under the railroad close to their current alignments
- US 6: Ramp improvements at the I-25/US 6 interchange; closure of the Bryant Street interchange; diamond interchange at US 6/Federal Boulevard with slip ramps to Bryant Street and a braided ramp from Federal Boulevard to eastbound US 6; reconstruction of US 6 with collector-distributor roads/auxiliary lanes throughout the project area

The Preferred Alternative of the Valley Highway Project is shown in Figure 1.

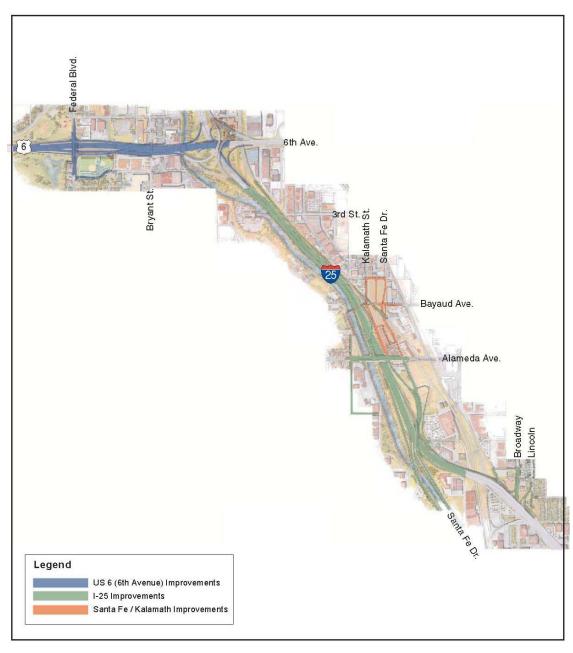


Figure 1: I-25 Valley Highway Project Preferred Alternative

## 1.2 US 6 Bridges Design Build Project

The Project includes the reconstruction of US 6, reconfiguration of interchanges from Federal Boulevard to I-25, and replacement of the US 6 bridges from Federal Boulevard to the bridge over the BNSF Railway. More specifically, the Project includes the following elements:

- The replacement of five bridges along US 6: Federal Boulevard, Bryant Street, South Platte River, I-25, and BNSF Railway. Three of these bridges are in poor condition and the other two are functionally obsolete. The project would also add a tunnel immediately east of I-25 under US 6 to separate traffic on northbound I-25 from traffic exiting the interstate to travel east and west on US 6.
- Ramp improvements at the I-25/US 6 interchange, closure of the westbound (WB) US 6 to
  Bryant Street ramp, a diamond interchange at US 6/Federal Boulevard with slip ramps to Bryant
  Street, and a braided ramp from Federal Boulevard to eastbound (EB) US 6.
- Reconstruction of US 6 with collector-distributor roads/auxiliary lanes from Federal Boulevard to the BNSF Railway bridge structure
- Conversion of 5<sup>th</sup> Avenue to two-way traffic from Federal Boulevard to Decatur Street
- Widening of Federal Boulevard, from five to six lanes, from 5<sup>th</sup> to 7<sup>th</sup> Avenues to accommodate current and future improvements
- Pavement resurfacing of US 6 from Knox Boulevard to Sheridan Boulevard
- In-kind replacement of impacted facilities for Barnum East Park
- A bicycle/pedestrian bridge structure over US 6, connecting Barnum North Park and Barnum Park (also known as Barnum Park South, and herein referred to as Barnum Park South)
- Upgrading portions of the South Platte River Trail to current standards

Figure 2 shows the Project.

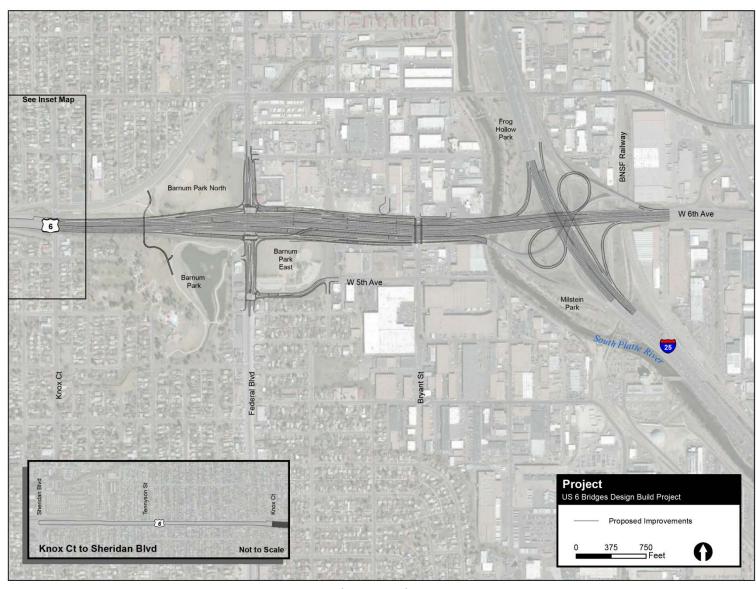


Figure 2: Project

# 1.3 Relationship of the Valley Highway Project and the US 6 Bridges Design Build Project

At the time of the FEIS, funding had not been identified for the entire Preferred Alternative. Although budget placeholders were included in the 2030 Regional Transportation Plan (RTP), these budgets fell short of the estimated cost of the Preferred Alternative. Therefore, FHWA and CDOT planned for a phased implementation of the Preferred Alternative. These six phases are outlined in Chapter 7 of the FEIS. The ROD2 for the Project will reevaluate part of Phase 1 (the part including the US 6/Federal Boulevard interchange) as presented in the 2007 ROD, and provide a decision for Phase 5 of the Valley Highway Project. The ROD2 for the Project will also address six new, minor project elements, which were not part of the FEIS. Due to the minor environmental significance and nature of these additional components, they are included in the ROD2 and will not affect the independent utility, logical termini, or Preferred Alternative of the Valley Highway Project.

## 1.3.1 **Phasing of the FEIS Preferred Alternative**

The Project includes elements of two of the six construction phases—Phase 1 and Phase 5—from the Valley Highway Project. A decision on construction Phase 1 of the Valley Highway Project, which included the US 6/Federal Boulevard bridge and ramps, excluding the braided ramp, was made in the 2007 ROD. Figure 3 shows the phases of the Valley Highway Project's Preferred Alternative and Figure 4 shows the Project Elements and how they relate to the FEIS phasing.

## 1.3.2 Additional Project Elements in the Project

At this time, the Project includes six additional elements that were not included in the FEIS or 2007 ROD:

- Reconstruction of the southbound (SB) I-25 to EB US 6 ramp;
- A bicycle/pedestrian bridge structure over US 6, connecting Barnum North and Barnum South parks;
- Replacement of the US 6 bridge over Bryant Street;
- Replacement of the US 6 bridge over I-25;
- Replacement of the US 6 bridge over the BNSF Railway; and
- Pavement resurfacing of US 6 between Sheridan Boulevard and Knox Court

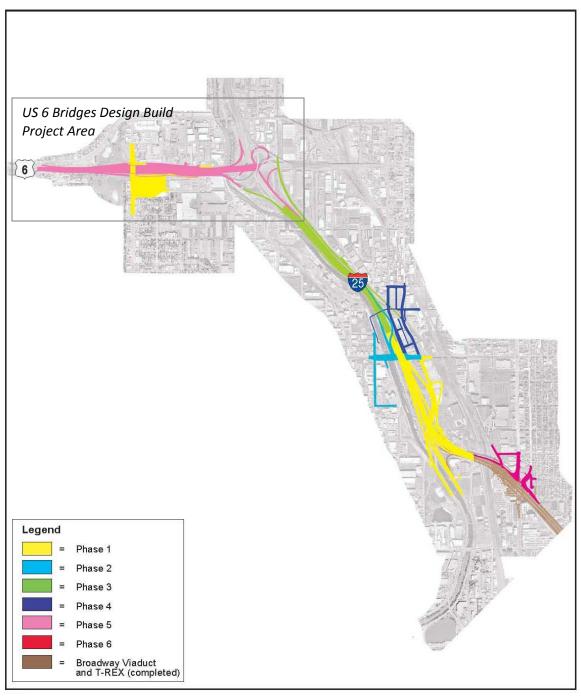
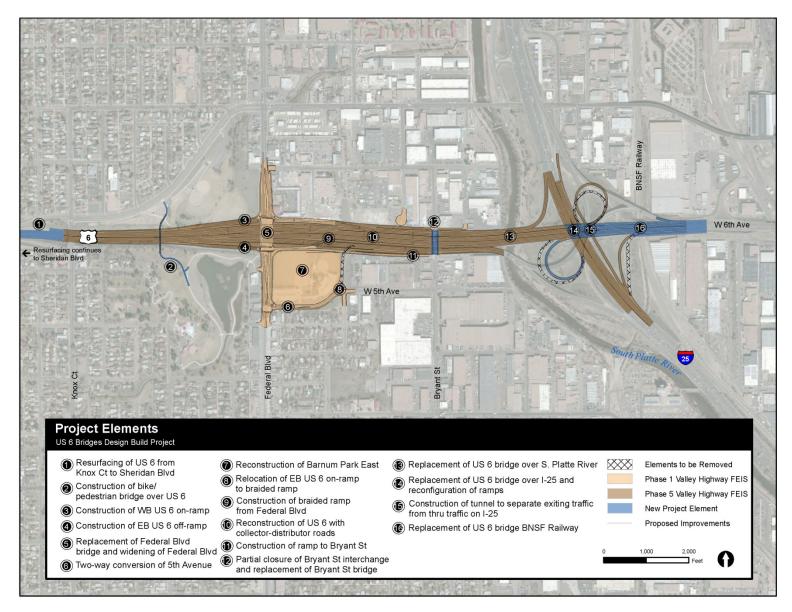


Figure 3: FEIS Phased Implementation of the Preferred Alternative

(source: I-25 Valley Highway FEIS)



**Figure 4: Project Elements** 

## 2. HAZARDOUS MATERIALS ANALYSIS

## 2.1 Purpose

This report discusses the potential for soil and groundwater impacts to be encountered within the Project area. The purpose of this report is to present available environmental assessment data for sites that are in the Project area that could affect worker safety, or result in additional costs due to managing hazardous waste or petroleum impacts. Excavation and drilling activities associated with the Project Preferred Alternative have the potential to encounter soil and groundwater that have been impacted by petroleum products or releases of hazardous substances. Other environmental issues such as asbestos or lead paint may be encountered during the demolition of the existing bridges and other structures.

Several environmental assessments have been conducted to evaluate potential environmental conditions and recognized environmental conditions where releases of hazardous substances may have resulted in a hazardous waste or releases of petroleum products have resulted in the creation of a special waste that may require additional characterization, handling, and proper disposal.

Felsburg Holt & Ullevig (FHU), acting on behalf of the Colorado Department of Transportation (CDOT), conducted a Modified Environmental Site Assessment (MESA) in 2005 for the Valley Highway Project in support of the 2006 Environmental Impact Statement (EIS) and 2007 Record of Decision (2007 ROD). In addition, Pinyon Environmental Engineering Resources, Inc. completed an Initial Site Assessment (ISA) in 2011 near the US 6 Bridge over the BNSF Railway Company tracks (BNSF Railway) to evaluate the potential release of hazardous materials or petroleum products that may have been released into the subsurface. The purpose of this hazardous material analysis was done in support of obtaining environmental clearance for the US 6 Bridges Design Build Project which is part of the overall Valley Highway Project.

The Project is in an area of Denver that has been developed since the late 1800's and early 1900's. Land use in this area has changed over time and has included various commercial and industrial activities along US 6, I-25, and Federal Boulevard. Use of hazardous substances such as solvents and metals at these businesses may have resulted in the release of these substances resulting in a hazardous waste. Underground storage tanks with the potential for releases of petroleum products to impact subsurface soil and groundwater are a concern. Additionally areas outside the Project along the South Platte River were historically used as landfills that were not designed or constructed with liners or other measures that prevent soil and groundwater impacts. These activities have the potential to have adversely impacted soil and groundwater within the Project area; and therefore, could impact the Project elements listed above. A summary of the methodologies and screening procedures implemented for this hazardous materials analysis is described in the following paragraphs.

## 2.2 Methodology

The methodologies used during the hazardous waste analysis primarily followed the procedures outlined in the 2005 MESA, which were based on the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments E 1527-00 (ASTM, 2000), CDOT guidance, and through consultation with CDOT and CDPHE, as provided in the FEIS. The methodology used the older ASTM E 1527-00 standard rather than the current E 1527-05 standard and EPA's All Appropriate Inquiry (40 CFR Part 312) since there are requirements in the newer standard that would be impractical to complete for a corridor study, and because the primary reason for performing these activities is to identify areas of financial risk rather than qualifying for one of the three Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability protections. The scope of work was intended as an evaluation for construction activities to encounter hazardous waste rather than conducting an ASTM compliant Phase I environmental site assessment, although there are elements that are common to both such as identifying recognized environmental conditions.

ASTM defines a **recognized environmental condition** as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicated an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property". The term includes hazardous substances or petroleum products even under conditions in compliance with laws. Due to the limitations and nature of the 2005 MESA and this hazardous waste analysis, the term **potential environmental condition** has been used to identify properties where recognized conditions may be present but could not be confirmed without additional inspection or investigation, which was beyond the scope of the 2005 MESA and this hazardous waste analysis. Properties identified in this analysis are rated as either a site with **potential environmental conditions**, or **recognized environmental conditions**.

**Recognized environmental conditions** do not include *de minimis* conditions. ASTM defines these as "conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

Petroleum products are included within the scope of the practice (i.e., conducting environmental site assessments) because they are of concern with respect to many parcels of commercial real estate and current custom and usage to include an inquiry into the presence of petroleum products when doing an environmental site assessment of commercial real estate. Inclusion of petroleum products within the scope of the standard is not based upon the applicability, if any, of CERCLA to petroleum products.

The following actions were conducted in support of the hazardous waste analysis for the Project.

- Reviewed the 2005 MESA, FEIS, 2007 ROD, 2011 ISA, and any other relevant studies/documents prepared for the Project;
- Obtained an updated environmental database search (dated April 30, 2012) of local, state, and federal environmental agency databases within a maximum distance of one mile of the centerline of the Valley Highway Project footprint (e.g., from Federal Boulevard to the US 6 Bridge over the BNSF) as dictated by the CDOT guidance and ASTM Standard E1527-00;
- Reviewed relevant agencies files and/or agency websites of sites identified as having a **potential** and/or **recognized environmental conditions** associated with the Project footprint,
- Reviewed, as deemed necessary, property ownership of the sites with potential and/or recognized environmental conditions associated with the Project footprint;
- Performed limited site reconnaissance of sites previously identified in the 2005 MESA as sites
  with potential and/or recognized environmental conditions associated with the Project
  footprint;
- Performed limited site reconnaissance of any new sites identified in the 2012 environmental database search of local, state, and federal environmental agency databases with **potential** and/or **recognized environmental conditions** associated with the Project footprint; and;
- Olsson Associates conducted a limited subsurface investigation in December 2011 in conjunction
  with geotechnical borings advanced by Rocksol and Dakota Drilling of Denver. Olsson
  Associates conducted a second limited subsurface investigation in July 2012 along the US 6 and
  Federal Boulevard right-of-ways to assess recognized environmental conditions in these areas.
  Olsson Associates also conducted a third limited subsurface investigation and groundwater
  sampling in October 2012 at the 642 Federal Boulevard property.

## 2.3 Site Reconnaissance

## 2.3.1 Windshield Survey

A site reconnaissance was performed in May 2012 to evaluate environmental conditions of sites with **potential** and/or recognized environmental conditions located within and/or adjacent to (within 100 feet of) the US 6 Bridge Project footprint. The site reconnaissance included sites previously identified in the 2005 MESA and any new sites identified in the 2012 environmental database as sites with **potential** and/or recognized environmental conditions associated with the US 6 Bridge Project footprint. For locations of sites and areas with environmental conditions refer to Figure 4.13-1 and Figure 4.13-4, respectively, located in the FEIS. As stated in the 2005 MESA, individual sites were typically not physically inspected during the site reconnaissance due to the size of the Project footprint and site access issues. The information regarding environmental conditions of sites obtained during the site reconnaissance was limited to "windshield surveys" and focused on visual areas of chemical and petroleum usage, storage, and discharges.

## 2.3.2 Limited Subsurface Investigations

A limited subsurface investigation and the installation of temporary groundwater monitoring wells were conducted in December 2011 in conjunction with geotechnical borings advanced by Rocksol. Subsurface soils from a total of six of the geotechnical borings drilled for retaining walls were collected for laboratory analysis. The retaining wall borings were selected since they were advanced to depths where groundwater was expected to be encountered based on a review of the State Engineer's office records for existing water wells in the area. The six retaining wall borings were completed as temporary monitoring wells (RW 1-2, RW2-1, RW 3-2, RW 5-1, RW 6-1, and RW 7-1) and are shown in Figure 5. These wells were installed along the US 6 right-of-way from the interchange with I-25 to approximately the Bryant Street bridge on December 7, December 9, December 12, and December 20, 2011.

Fluid level measurements and field parameters were measured in all six of these wells prior to sampling. Grab groundwater samples were collected from all six monitoring wells on January 4, 2012. A summary of the findings of this limited subsurface investigation is provided in Section 3.2.1.1 of this report.



Figure 5: Subsurface Monitoring Wells December 2011/January 2012

Olsson Associates conducted a limited subsurface investigation in July 2012 in the US 6 and Federal Boulevard right-of-way. This was done to identify areas adjacent to, or within the Project footprint that may have contaminated soils and/or groundwater, potentially impacting the construction of the Project. During the limited subsurface investigation, twelve (12) temporary monitoring holes were drilled along the Project footprint west of Bryant Street with soil and groundwater samples collected at each of the

test hole locations. The location of the test holes are shown below as well as in Figure 1 of the Limited Subsurface Investigation Report, which is provided in Appendix D to this report.

The collected soil and groundwater samples were submitted to a laboratory for analysis and were tested for petroleum hydrocarbon constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Method SW8260, total concentrations of the eight Resource Conservation and Recovery Act (RCRA) Metals by SW 6020/SW 7471A, and percent moisture by SW 3550. A summary of the findings of the limited subsurface investigation is provided in Section 3.2.1.1 of this report.

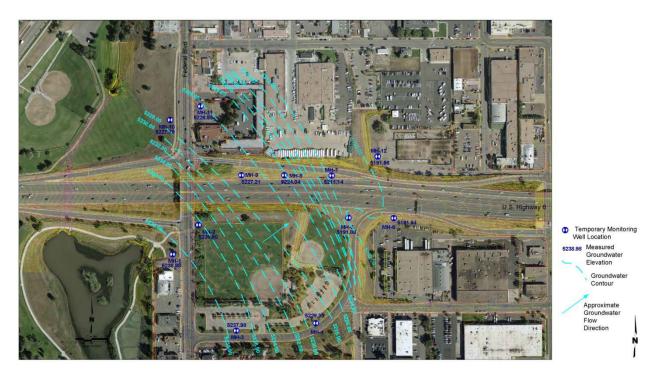


Figure 6: Subsurface Monitoring Wells June/July 2012

Due to concerns raised by the findings at well MH-11, an additional limited subsurface investigation was conducted on October 16, 2012 at the vacant property formerly occupied by the Austria Motors, Inc. dealership and automotive repair, located at 642 Federal Boulevard. This site was a former leaking underground storage tank (LUST) site that received closure following site investigation and remediation. A release was reported to the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS) in October 1997 and assigned event #6193. The OPS issued a no further action (NFA) letter on July 7, 1999 following completion of the site remediation.

This limited subsurface investigation was conducted on October 16, 2012 and included the installation of three soil borings completed as temporary monitoring wells identified as MH-13, MH-14, and MH-15 as shown on Figure 7. These wells were drilled in locations suggested by CDOT to assess the nature and extent of impacted soil and groundwater discovered in temporary monitoring well MH-11 which was installed on the northwest side of the property in August 2012. The soil samples submitted for laboratory analysis were collected from the interval that exhibited staining, hydrocarbon odor, the

highest headspace PID readings, the interval at or above the water table, and from the total depth of the well boring. Olsson personnel logged the borings to record the lithologies encountered, the depth to groundwater, and observed staining or odors that suggested petroleum hydrocarbon or chemical impacts. Copies of the lithologic logs for each boring are presented in Appendix F. A summary of the findings of this limited subsurface investigation is provided in Section 3.2.1.1 of this report.

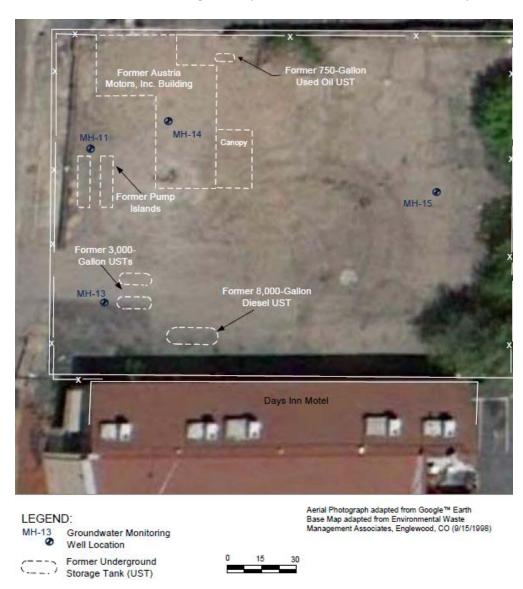


Figure 7: Monitoring Well locations at 642 Federal Boulevard

## 2.4 Agency Database Review

A review of local, state, and federal database records for information relating to the Project footprint was conducted. The approximate minimum search distance for each database is identified in Table 1, which lists both ASTM guidance as well as the search distances that applied to the work in the FEIS and 2007 ROD. The approximate minimum search distance was performed according to ASTM Standard E1527-00 unless expanded according to CDOT guidance.

Table 1. Database Descriptions and Minimum Search Distances

Database	ASTM Approximate Minimum Search Distance (mile)	CDOT Approximate Minimum Search Distance (mile)*	Radius Searched (mile)
Federal National Priorities List (NPL) EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.	1.0	-	1.0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Compilation by the EPA of sites at which the potential exists for contamination originating from on-site hazardous substance storage or disposal. Sites designated as "NFRAP" indicate that No Further Remedial Action is Planned.	Site	0.25	0.25
Federal Resource Conservation and Recovery Act (RCRA) treatment, storage, or disposal (TSD) facilities RCRA permitted TSD facilities	1.0	1.0	1.0
Federal Resource Conservation and Recovery Information System (RCRIS) Facilities that are regulated based on current hazardous waste generation management activities.	0.5	1.0	1.0
Federal RCRA Corrective Action (CORRACTS) facilities Sites identified as needing Corrective Action after a release of a hazardous waste or constituent into the environment from a RCRA facility.	0.5	1.0	1.0
Federal/State Emergency Response Notification System (ERNS) List Database of public complaints and reports of unverified releases or incidents.	Site and Adjoining Properties	0.25	0.25
State Voluntary Cleanup Programs (VCUP) Sites being addressed under the Colorado Department of Public Health and Environment (CDPHE) Voluntary Cleanup Program (VCUP).	1.0	1.0	1.0
State Solid Waste Disposal (SWF) and/or Landfill (LF) sites Inventory of solid waste and landfill facilities.	0.5	1.0	1.0
State Historical Landfills sites Inactive landfill sites (including sites known to generate methane) and illegal dump sites.	0.5	1.0	1.0
State Above Ground Storage Tank (AST)/Underground Storage Tank (UST) List of sites that registered the presence of ASTs/USTs with the Colorado Department of Labor and Employment Division of Oil and Public Safety (OPS)	Site and Adjoining Properties	0.25	0.25
State Leaking Underground Storage Tanks (LUST) List of closed or unremediated reported LUSTs.	0.5	1.0	1.0

Source: 2005 MESA and FEIS

 $<sup>^{*}\</sup>text{CDOT}$  search distance based on methodology at the time of the FEIS and 2007 ROD

# 3. HAZARDOUS MATERIALS FINDINGS AND RECOMMENDATIONS ANALYSIS OF US 6 PROJECT FOOTPRINT

## 3.1 Summary of Hazardous Materials Analysis per the 2005 MESA, FEIS, and 2011 ISA

## 3.1.1 *Findings*

The 2005 MESA and FEIS identified sixteen (16) properties (three former landfill locations) along the Project footprint as sites with *potential* and *recognized environmental conditions*. These sites included Underground Storage Tank (UST) sites, Leaking Underground Storage Tank (LUST) sites, Resource Conservation and Recovery Act (RCRA) generators, Emergency Response Notification System (ERNS) sites, and Solid Waste Facilities/Landfill Sites (SWF/LF). Several of the identified sites and/or properties along the Project footprint are known or suspected to have, or have had, contaminated soils and/or groundwater as a result of releases of petroleum based products, former land use of area, and/or releases of various other hazardous material substances. The existing and/or suspected environmental site conditions for each of the identified sites are summarized in Table 2.

The 2011 ISA analyzed nine sites with *potential* and *recognized environmental conditions* located in the area of the Project over the BNSF Railroad (refer to Figure 1 and 2 in the 2011 ISA). Most sites were previously identified in the 2005 MESA. These sites included the following:

Ppg Industries Inc. 590 Quivas Street
 RCRA-NLR, UST;

• Unknown 1701 W. 6<sup>th</sup> Avenue SPILLS;

Conrads Inc. 595 Quivas Street UST, LUST;

Dupont De Nemours and Co 555 Quivas Street RCRA-NLR;

Incident near 4<sup>th</sup> and Navajo Streets ERNS;

Rio Grande Co/Unknown 5<sup>th</sup> and Osage Streets LUST;

Landfill 490 Osage Street
 Landfill with unknown use or contents;

• Unknown 500 Quivas Street SPILLS; and

Commercial Building 501 Raritan Way
 USTs permanently closed.

Based on the 2011 ISA, all of the above listed sites were identified as sites that have the potential to impact the Project over the BNSF Railroad.

## 3.1.2 *Additional Issues and Findings*

ASTM E 1527-00 lists several non-scope considerations that persons may want to assess in connection with real property transactions, but are not included under the standard. These non-scope issues include asbestos containing building materials, radon, lead-based paint, lead in drinking water, regulatory compliance, industrial hygiene, health and safety, indoor air quality, biological agents, mold, and vapor intrusion. Some of these non-scope issues are included as separate sections of the FEIS.

Pinyon Environmental collected four lead and one suspect asbestos containing material sample from the four paint colors observed on the BNSF bridge and from the caulking observed on the south bridge piers,

respectively. Three paint samples collected from the BNSF bridge (F-16-EJ) were found to contain lead. The brown paint contained lead at 7.246% and the gray paint contained lead at 2.693%. These levels exceed the US Environmental Protection Agency (EPA) minimum lead by weight content, 0.5% lead by weight (EPA 1992); and are therefore considered to be lead-based. The silver paint sample contained 0.07% lead, which is below the EPA standard for lead-based paint. No lead was found in the red paint sample collected from the bridge. Asbestos was not found in the caulking collected from the south bridge piers; however, based on the number of samples, this screening should not be considered comprehensive.

The ISA recommends that the selected contractor be notified that two of the four paint colors on the bridge are painted with lead-based paint and should avoid sanding, cutting, burning, or otherwise causing the release of lead from the paint on the bridge components. All painted bridge components should be removed and recycled in accordance with CDOT Specification 250.04.

The 2011 ISA also noted the presence of a transient population camp adjacent to the BNSF Railway under the US 6 Bridge. The Project should include a Health and Safety Plan (HASP), which should provide considerations for potential contamination found in this area.

Table 2. Summary of Sites along US 6 with Potential and Recognized Environmental Conditions identified in the 2005 MESA and FEIS

Type of Environmental Conditions	Map ID Reported in 2003 EDR	Property Name(s) and Address	Database	Environmental Conditions	Potential Environmental Concern Ranking
Recognized	86	86 In Alley Dumpster Behind old TRW Bldg. ERNS 445 Federal BLVD. Denver, CO 80204		ERNS - Hazardous material found in dumpster in alley behind building. No additional information obtained.	Medium
Recognized	86	Sound on Wheels (former KOK Auto Repair and Body Shop /Yamaguchi Property) 450 Federal BLVD. Denver, CO 80204	FINDS LUST UST	Automotive repair and supply facility. Former gas station with reported UST and LUST. Known petroleum impacted soil and groundwater on the property.	Medium
Potential	86	Phillips 66/Pester Marketing Company/1 <sup>st</sup> STOP #1207 438 Federal BLVD. Denver, CO 80204	FINDS UST	Gas station with USTs currently in use on property. No leaks or spills reported. Unknown site conditions (located adjacent to LUST site).	Low
Potential	51	Denver Public Schools Hilltop Bus Terminal 2800/2929 W. 7 <sup>th</sup> Avenue Denver, CO 80204	UST LUST	Denver Public Schools Hilltop Bus Terminal. USTs reported on site. No leaks or spills reported. Unknown material handling and disposal practices.	Site was not ranked
Recognized	87	PCB-Capacitor Cleanup 5 <sup>th</sup> and Decatur Street	SPILLS	CERCLIS site. RCRA Small Quantity Generator – no reported violations. No additional information available and site conditions are unknown.	High
Potential	81	Bryant Street Phillip 510 Bryant Street Denver, CO 80204	UST	Gas station with USTs currently in use on property. No leaks or spills reported. Unknown site conditions (located adjacent to LUST site).	Low
Recognized	81	Ryder Truck Rental 0155 550 Bryant Street Bryant Street Denver, CO 80204	RCRA-SQG FINDS LUST UST	Rental truck facility. FINDS site. RCRA Conditionally Exempt Small Quantity Generator – no violations reported. UST and LUST site. Known petroleum impacted soil and groundwater on the property.	Medium
Recognized	54	Southbound Ramp 6 <sup>th</sup> Avenue to I-25	ERNS	ERNS - Diesel tanker overturned and fell into South Platte River. Residual soil and groundwater contamination may be present. No additional information obtained.	Site was not ranked
Potential	N/A	Proctor Production/Fuji Photo Film USA INC /Associated Stationer INC 501 Raritan Way Denver, CO 80204	RCRANLR FINDS UST	Commercial building. USTs permanently closed at property. No leaks or spills reported. Unknown site conditions.	Site was not ranked

Type of Environmental Conditions	Map ID Reported in 2003 EDR	Property Name(s) and Address	Database	Environmental Conditions	Potential Environmental Concern Ranking
Recognized	75	Conrads Inc. (Warehouse)/Kenny Electrical Service 595 Quivas Street Denver, CO 80204	LUST UST	Commercial building. Former location of Conrads Inc. UST and LUST site. Residual petroleum impacted soil may be located on property.	Medium
Recognized	75	Sears Roebuck & Co. 1701 W. US 6 Denver, CO 80204 and 701 Osage Street Denver, CO 80219	LUST UST ERNS	Warehouse. UST, LUST, and ERNS site. Known petroleum impacted soil and groundwater on site.	Medium
Recognized	76	UPRR Burnham Yard 6 <sup>th</sup> and Osage Denver, CO 80204	ERNS	US 6 and Osage Street. ERNS site. Known petroleum impacted groundwater in area and vicinity of US6/I-25 interchange.	High
Recognized	80	Landfill 500 Julian Street Denver, CO 80204	SWF/LF	Unknown use or contents. Unknown site conditions (potential groundwater contamination and methane).	High
Recognized	81	Landfill 500 Alcott Street Denver, CO 80204	SWF/LF	Unknown use or contents. Unknown site conditions (potential groundwater contamination and methane).	High
Recognized	83	Landfill[California Expanded Metals Co./Champion Fence Co./Southwest Properties 490 Osage Street Denver, CO 80204	SWF/LF LUST FINDS TRIS	Unknown use or contents. Unknown site conditions (potential groundwater contamination).	High
Recognized	83	Rio Grand Co. Residential Products Div. 500 Osage Street Denver, CO 80204	FINDS UST	Manufacturing facility. FINDS, UST and LUST site. Related to the US 6 and Osage UPRR-Burnham Yard ERNS site. Known petroleum impacted groundwater and soil in area and vicinity of US6/I-25 interchange.	High

Source: 2005 MESA and FEIS

## 3.1.3 **Recommendations**

Based on the findings presented in the 2005 MESA and FEIS and given the variety of industrial and commercial uses and the long history of use, soil and groundwater throughout the Project area have the potential to be impacted. Sites with *potential* and *recognized environmental conditions* should be evaluated prior to the acquisition of right-of-way (ROW). The recommended ROW acquisition process for sites with potential and recognized environmental conditions is a three step process: *Initial Site Assessment (ISA), Phase I Environmental Site Assessment (Phase I), and Remedial Investigation/Feasibility Study (RI/FS)* (see 2005 MESA or 2006 FEIS for explanation of an ISA, Phase I, and RI/FS). Hereafter the RI/FS will be referred to as a Phase II. Table 3 summarizes sites with potential and recognized environmental conditions and the recommended actions per the 2005 MESA and FEIS. It is important to note that a Phase I or Phase II may be recommended based on the findings of an ISA. Properties where a Phase I or Phase II are recommended are identified in Table 3. In addition, a Materials Management Plan (MMP) is recommended as well as a HASP, which is required by section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2011). CDOT Region 6 requests that the MMP and HASP shall be reviewed by the CDOT Regional Environmental Manager.

The 2011 ISA also recommends that subsurface investigations, including collection of soil and groundwater samples, be conducted to evaluate the potential to encounter contaminated soil and groundwater near the US 6 Bridge over the BNSF Railroad. The Project design includes excavation in the area of the tunnel immediately east of I-25 under US 6 to separate traffic on northbound I-25 from traffic exiting the interstate to travel east and west on US 6. Though the Project describes the NB I-25 to WB US 6 off-ramp as a tunnel, it is a roadway structure slightly depressed to fit adjacent to the I-25 mainline underneath US 6, and is not a fully underground structure. Since groundwater is expected to be shallow in this area, construction of this tunnel will likely be part of a Clean Water Act Section 402 Construction Dewatering Permit, or Individual Construction Dewatering Permit if contaminated groundwater is expected to be encountered.

Both the tunnel and the bridge over the BNSF Railroad are within CDOT right-of-way and CDOT is undertaking a Phase II investigation in both of these areas to identify the presence and extent of and hazardous materials. CDOT is expecting to be able to provide the results of these investigations in early 2013.

[The Phase II investigation discussed above has been completed and is included in the appendices as: RMC Consultants. January 2013. Hazardous Material Site Investigation. U.S. Highway 6 Bridges at Interstate 25 and BNSF Railroad. RMC Consultants Project E12-023-154.]

Table 3. Summary of Recommendations for Sites Identified along US 6 per the 2005 MESA and FEIS

Type of				Recomm	endations	
Environmental Conditions	Property Name(s) and Address	Environmental Conditions	ISA <sup>1</sup>	Phase I <sup>2</sup>	PHASE	H&S <sup>4</sup>
Recognized	In Alley Dumpster Behind old TRW Bldg. 445 Federal BLVD. Denver, CO 80204	ERNS – Hazardous material found in dumpster in alley behind building. No additional information obtained.				х
Recognized	Sound on Wheels (former KOK Auto Repair and Body Shop /Yamaguchi Property) 450 Federal BLVD. Denver, CO 80204	Automotive repair and supply facility. Former gas station with reported UST and LUST. Known petroleum impacted soil and groundwater on the property.	х	х		х
Potential	Phillips 66/Pester Marketing Company/1 <sup>st</sup> STOP #1207 438 Federal BLVD. Denver, CO 80204	Gas station with USTs currently in use on property. No leaks or spills reported. Unknown site conditions (located adjacent to LUST site).	х			
Potential	Denver Public Schools Hilltop Bus Terminal 2800/2929 W. 7 <sup>th</sup> Avenue Denver, CO 80204	Denver Public Schools Hilltop Bus Terminal. USTs reported on site. No leaks or spills reported. Unknown material handling and disposal practices.	х	х		
Recognized	PCB-Capacitor Cleanup 5 <sup>th</sup> and Decatur Street	CERCLIS site. RCRA Small Quantity Generator – no reported violations. No additional information available and site conditions are unknown.	х	х		х
Potential	Bryant Street Phillip 510 Bryant Street Denver, CO 80204	Gas station with USTs currently in use on property. No leaks or spills reported. Unknown site conditions (located adjacent to LUST site).	х			
Recognized	Ryder Truck Rental 0155 550 Bryant Street Bryant Street Denver, CO 80204	Rental truck facility. FINDS site. RCRA Conditionally Exempt Small Quantity Generator – no violations reported. UST and LUST site. Known petroleum impacted soil and groundwater on the property.	х			х
Recognized	Southbound Ramp 6 <sup>th</sup> Avenue to I-25	ERNS - Diesel tanker overturned and fell into South Platte River. Residual soil and groundwater contamination may be present. No additional information obtained.				х
Potential	Proctor Production/Fuji Photo Film USA INC /Associated Stationer INC 501 Raritan Way Denver, CO 80204	Commercial building. USTs permanently closed at property. No leaks or spills reported. Unknown site conditions.	Х			

Time of				Recomm	endations	
Type of Environmental Conditions	Property Name(s) and Address	Environmental Conditions	ISA <sup>1</sup>	Phase I <sup>2</sup>	PHASE II <sup>3</sup>	H&S <sup>4</sup>
Recognized	Conrads Inc. (Warehouse)/Kenny Electrical Service 595 Quivas Street Denver, CO 80204	Commercial building. Former location of Conrads Inc. UST and LUST site. Residual petroleum impacted soil may be located on property.	х			х
Recognized	Sears Roebuck & Co. 1701 W. US 6 Denver, CO 80204 and 701 Osage Street Denver, CO 80219	Warehouse. UST, LUST, and ERNS site. Known petroleum impacted soil and groundwater on site.	Х	х		х
Recognized	UPRR Burnham Yard 6 <sup>th</sup> and Osage Denver, CO 80204	US 6 and Osage Street. ERNS site. Known petroleum impacted groundwater in area and vicinity of US6/I-25 interchange.	х	х		х
Recognized	Landfill 500 Julian Street Denver, CO 80204	Unknown use or contents. Unknown site conditions (potential groundwater contamination and methane).		х		х
Recognized	Landfill 500 Alcott Street Denver, CO 80204	Unknown use or contents. Unknown site conditions (potential groundwater contamination and methane).		х		х
Recognized	Landfill[California Expanded Metals Co./Champion Fence Co./Southwest Properties 490 Osage Street Denver, CO 80204	Unknown use or contents. Unknown site conditions (potential groundwater contamination).		х		х
Recognized	Rio Grand Co. Residential Products Div. 500 Osage Street Denver, CO 80204	Manufacturing facility. FINDS, UST and LUST site. Related to the US 6 and Osage UPRR-Burnham Yard ERNS site. Known petroleum impacted groundwater and soil in area and vicinity of US6/I-25 interchange.	х	х		х

Source: 2005 MESA and FEIS

<sup>&</sup>lt;sup>(1)</sup>ISA = Initial Site Assessment recommended

<sup>&</sup>lt;sup>(2)</sup>Phase I = Phase I Environmental Site Assessment recommended

<sup>&</sup>lt;sup>(3)</sup>PHASE II = Phase II Environmental Site Assessment recommended

 $<sup>^{\</sup>rm (4)}{\rm H\&S}$  = Materials Handling and Health and Safety Plans recommended

## 3.2 Summary of 2012 Hazardous Materials Analysis

## **3.2.1** *Findings*

The 2012 hazardous materials analysis re-evaluated the sites with *potential* and *recognized environmental conditions* along the Project Footprint that were identified in the 2005 MESA. In addition, the 2012 hazardous materials analysis evaluated any new sites along the Project Footprint that have been identified as sites with *potential* and *recognized environmental conditions* since the completion of the 2005 MESA. Furthermore, the findings of the limited subsurface investigations conducted in July 2012 and October 2012 were also reviewed and incorporated into the 2012 hazardous materials analysis.

## 3.2.1.1 Summary of Findings of the Limited Subsurface Investigation

The following paragraphs provide a brief summary of the findings in the limited subsurface investigation conducted in July 2012 and October 2012. The letter reports prepared for these investigations provide detailed discussions of the results and conclusions of in the limited subsurface investigation (see Appendix D and F to this report).

## 3.2.1.1.1 *Volatile Organic Compounds*

During the investigations done in July 2012, BTEX constituents in soil and groundwater, at detectable concentrations, were not encountered in 11 of the 12 temporary monitoring wells installed. MH-11, located on the CDOT property (formerly operated as Austria Motors, Inc. at 642 Federal Boulevard) north and west of the Days Inn motel, was the only monitoring well were petroleum hydrocarbon impacts were identified. The laboratory results for the soil sample collected at 30 feet below ground surface (bgs) detected a benzene concentration of 1.70 milligrams per kilogram (mg/kg), which is above the Colorado Department of Public Health and Environment (CDPHE) Soil Cleanup Standards (July 2011) for residential soil (1.2 mg/kg) and worker clean up (1.6 mg/kg) as well as the groundwater protection benzene standard of 0.17 mg/kg. Benzene is a compound of concern due to potential migration to groundwater (OA 2012). Concentrations of toluene, ethylbenzene, and total xylenes were also detected in the soil sample collected at 30 feet bgs; however, the concentrations were below the CDPHE soil and groundwater clean-up standards. In soil samples collected from MH-11 at 20 feet, toluene was detected at 11 µg/kg, and toluene was estimated at a concentration of 3.9 µg/kg "J" in the sample collected from 39 feet. Both are well below the soil standards for toluene. The laboratory results for the groundwater sample collected at approximately 27.34 bgs detected a benzene concentration of 0.2 milligrams per liter (mg/L), which is above the CDPHE/Water Quality Control Division (WQCD) maximum contaminant level (MCL) of 0.005 mg/L. Concentrations of toluene, ethylbenzene, and total xylenes were also detected in the MH-11 sample, but were reported at concentrations that did not exceed their respective MCLs. Benzene is a compound of concern in groundwater since it exceeds the MCL (OA 2012).

During the subsequent investigations in October 2012, the laboratory analytical results reported that benzene was not detected at or above the laboratory reporting limit of 5 micrograms per kilogram ( $\mu$ g/Kg) in any of the six soil samples collected from the monitoring well soil borings installed during the

October 15, 2012 limited subsurface investigation. Toluene, ethylbenzene, and total xylenes were not detected at or above the laboratory reporting limit in any of the six soil samples.

#### 3.2.1.1.2 *RCRA Metals*

The soil and groundwater samples collected at the 12 monitoring hole locations in July 2012 and October 2012 were also analyzed for concentrations of eight RCRA metals that included arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Arsenic was the primary RCRA metal in the collected soil samples reported to be above the Colorado Soil Evaluation Values (CSEV) Table residential and worker protection levels as based on human health risks (see Appendix D Table 2 and Appendix F to this report). In addition, arsenic, barium, cadmium, chromium, lead, and selenium were detected in several of the groundwater samples, sometimes exceeding the Colorado Basic Groundwater Standards (see Appendix D Table 5 and Appendix F to this report).

The elevated total metals concentrations of arsenic, barium, cadmium, chromium, and selenium could pose a problem for disposal if groundwater is encountered during excavation, and if excavation dewatering is required (OA 2012).

## 3.2.1.1.3 Limited Subsurface Investigation Conclusions

Two limited subsurface investigations have been conducted on the west side of I-25 along the north and south right-of-ways of US 6 to Bryant Street and Federal Boulevard. These limited subsurface investigations included the collection of soil and groundwater samples to assess whether there were hazardous waste or petroleum impacts resulting from past land use. The soil and groundwater results do not indicate the presence of hazardous material or petroleum hydrocarbon impacts. One caveat to this is that the metals concentrations in soil and groundwater may be the result of natural background, anthropogenic activities, or a combination of the two. Certain metals such as arsenic or selenium could impact site activities if it becomes necessary to obtain a groundwater discharge permit in order to dewater excavations. If these metals are elevated above surface water standards, it may be necessary to treat the water prior to discharge or to dispose of the water through a commercial sanitary sewer system.

#### 3.2.1.2 LUST Sites within Project Footprint

The acquisition of right-of-way will be required from four LUST sites (former and active) within the Project Footprint. These sites (Legend Numbers 1, 3, 16, and 17) are shown in Figure 8 ROW / Hazmat Conditions and listed in Table 4. One site, Legend Number 2, is not a LUST site; however, it is discussed in the following paragraphs since it may have been impacted by an adjacent LUST site (Legend Number 3).

## 3.2.1.3 Environmental Concern Ranking Methodology

Similar to the methodology used in the 2005 MESA for the FEIS findings, the environmental concern ranking listed in Table 4 was developed based on a sites proximity to the project, the expected groundwater flow direction, whether the property needs to be acquired by the project and the known history of hazardous materials on the site. High risk sites are those with known hazardous materials that are likely to impact the project because the property needs to be acquired or is likely to impact project

construction processes since contaminated groundwater may be encountered. Medium risk sites have known hazardous materials releases which have either been remediated and closed or are not likely to be encountered during project construction based on the depth of contamination. Low risk sites are listed in the Environmental Database Report but have no known hazardous material regulatory or compliance issues.

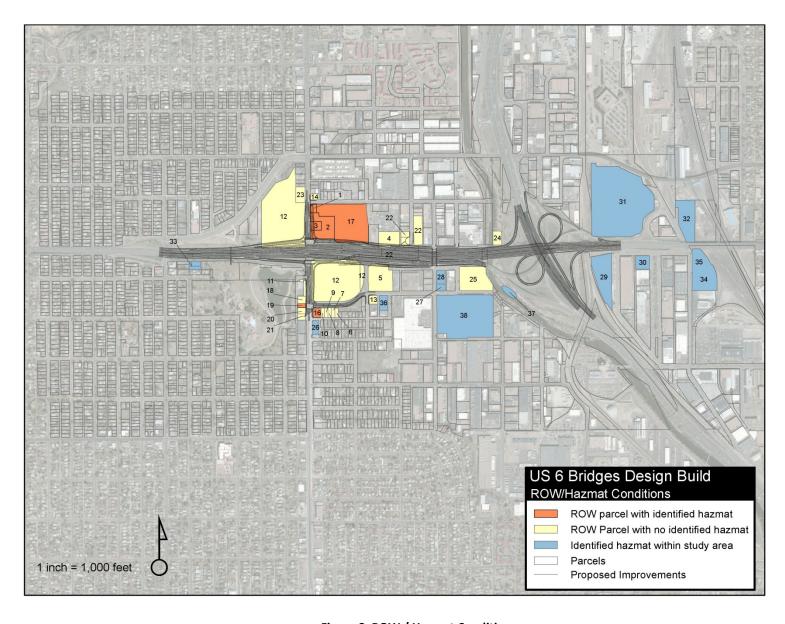


Figure 8: ROW / Hazmat Conditions

Table 4. Summary of Recommendations for Sites Identified along US 6 per the 2012 Hazardous Materials Analysis

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
1	Recognized	200	Fergs Enterprise, LLC, a Colorado limited liability company /Marco's Auto Tech 690 Federal BLVD. Denver, CO 80204	Entire parcel. A 510 sf office building, four garages used as automotive service bays (the total size of the building and bays is 2,407 sf) and 2 abandoned underground petroleum storage tanks that have been filled with concrete, a cell tower, and associated appurtenances located on 620 Federal Blvd, Denver CO 80204.	Confirmed release reported in the LUST database on 2/15/2000. Two USTs permanently closed on 6/15/2000. Closure letter sent on 8/15/2000. CDOT completed and ISA on 4/1/11.  Groundwater flows to the northeast, away from Project footprint.	Medium	Materials Handling and Health and Safety Plans recommended	ROW acquisition required from a site that is listed in the LUST database.
2	Recognized	102, 102A, TE-102, TE- 102A, TE- 102B, TE- 103, PE- 202.	U.S. Motels Federal, LLC	Parking lot/asphalt  Lobby/administration building used as part of the Day's Inn Motel at 620 Federal Boulevard, Denver CO 80204.  Sheet No.5.04	This site was not identified in any of the environmental databases.  Groundwater flows to the northeast, away from Project footprint.	Low	Materials Handling and Health and Safety Plans recommended	The results of the October 2012 subsurface investigation at the adjacent Site 3 do not indicate potential contamination migration so no additional investigation is necessary at Site 2.

Legend #	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
3	Recognized	AP-103 103-RM TE-103	Colorado Department of Transportati on/Austria Motors 642 Federal BLVD. Denver, CO 80204	Assumed to be sliver parallel to US 6. 50' x 300'.  Area appears to be trees/weeds/dirt and asphalt.  Sheet Nos. 5.08 and 5.11	In October 2012, the laboratory reported concentrations of total metals in the soil samples which were below the CDPHE HMWMD July 2011 CSEV Table values. Therefore, the metals do not appear to be compounds of concern at the site. Concentrations of arsenic, barium, chromium, lead and selenium were detected in samples from MH-11, MH-13, and MH-15.  Groundwater flows to the northeast, away from Project footprint.	Medium	Materials Handling and Health and Safety Plan recommended	Additional subsurface investigations was conducted in October 2012 to further evaluate level/area of soil and groundwater contamination discovered in July 2012.  The results of the October 2012 investigation indicate that the values of several of the metals reported in the MH-15 groundwater sample could pose a problem for disposal if groundwater is encountered during excavation, and if excavation dewatering is required for construction. However, encountering these soils may not be likely considering the depths.
4		104	Colorado Department of Transportati on  2727 W. 6th Avenue, Denver, Colorado 80204	Sheet No. 6.01	None	No	N/A	

Legend #	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
5		205 Rev. 205A Rev. PE-205	5th Avenue Properties LTD, Liability Co.	50' x 400' area east of Barnum Park East.  40' x 250' sliver south of US 6 and parallel to the highway.  Area of take is barren – trees/weeds/dirt.  Sheet Nos. 5.09 and 5.10	None	No	N/A	
6		206, TE- 206	John Orlando	Area to be Acquired – < 5' x 50' sliver at front of property.  Temporary Easement – 10' x 50' sliver adjacent to acquisition.  Area is barren – trees/weeds/dirt.  Sheet No. 5.07	None	No	N/A	
7		207, TE- 207, TE- 207A	Dina Hinojos and Nancy Jacinto	A garage located on 2929 West Short Place, Denver, CO 80204  Area to be Acquired — < 5' x 50' sliver at front of property.  Temporary Easement — 40' x 50' area adjacent to acquisition. Residential property. Area has garage and debris.	None	No	N/A	

Legend #	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
8		208, TE- 208	Juan Luna	Area to be Acquired – < 5' x 50' sliver at front of property.  Temporary Easement – 10' x 50' sliver adjacent to acquisition.  Area is barren – trees/weeds/dirt.  Sheet No. 5.07	No	No	N/A	
9		209, TE- 209, TE-209A	Thomas Harvey	Area to be Acquired – < 5' x 50' sliver at front of property.  Temporary Easement – 20' x 50' sliver adjacent to acquisition.  Area is barren – trees/weeds/dirt. Looks there may be impact to a small shed.  Sheet No. 5.07	None	No	N/A	
10		210, TE- 210	Jim Zakhem	Area to be Acquired — < 5' x 50' sliver at front of property.  Temporary Easement — 10' x 50' sliver adjacent to acquisition.  Area is barren dirt and asphalt.  Sheet No. 5.07	None	No	N/A	

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
11		211, TE- 211	Young J. Kwon and Lily Kwon	Area to be Acquired – < 5' x 125' sliver at front of property along Federal Blvd.  Temporary Easement – 15' x 50' sliver adjacent to acquisition.  Area is asphalt.  Sheet No. 5.07	None	No	N/A	
12		212 Rev., 212A, 212B Rev., 212C, PE-212, PE- 212A	City and County of Denver	Area to be Acquired – 25' – 50" x 800' area in Barnum Park east along Federal and US 6.  Permanent Easement – 15' x 400' area adjacent to acquisition along US 6.  Area is grass and trees.  Sheet Nos. 5.06 and 5.07	None	No	N/A	
13		TE-213	Vassilios & Lynne L. Sirolaidis	Temporary Easement - 20' – 25' x 150' area in the southeast corner of West 5 <sup>th</sup> Avenue and Decatur.  Area is asphalt.  Sheet No. 5.09	None	No	N/A	

Legend #	Type of Environmental Conditions	ROW Parcel Number TE-214	Property Name(s) and Address M&M Hi	Amount of ROW Required at Site/Description of ROW Acquired Temporary Easement -	Environmental Conditions (Based on Information available at time of 2012 Investigation) None	2012 Potential Environmental Concern Ranking	Recommendations N/A	Reasons for Recommendations
		12-214	Performance Car Wash	10' x 200' area on the northeast corner of West 7th Avenue and Federal Blvd.  Area is asphalt.  Sheet No 6.01				
15		PE-216	Edward A. Robinson & Marcia K. Robinson	Permanent Easement – 25'-30' x 220' area along US 6.  Area is asphalt. Semi box trailers on property.  Sheet No. 5.12	None	No	N/A	
16	Recognized	TE-217	Charles S. Yamaguchi and Chiseko Yamaguchi  Sound on Wheels (former KOK Auto Repair and Body Shop /Yamaguchi Property) 450 Federal BLVD. Denver, CO 80204	Temporary Easement – 10' x 200' sliver on the southeast corner of West 5 <sup>th</sup> Avenue and Federal.  Area is gravel and asphalt.  Sheet No. 5.07	Automotive repair and supply facility. Former gas station with reported UST and LUST. Known petroleum impacted soil and groundwater on the property. A CAP and monitoring activities are currently in place at this site.  Groundwater flows to the west, northwest, toward the Project footprint along US 6	High	Materials Handling and Health and Safety Plan recommended	An ISA is recommended to ascertain the results of the current corrective action measures that are in progress at this site. The completion date of the clean-up efforts is currently not known.

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
17	Recognized	218, PE- 218, TE- 218 Rev.	School District No. 1 in the City and County of Denver and State of Colorado  Denver Public Schools Hilltop Bus Terminal 2800/2929 W. 7 <sup>th</sup> Avenue Denver, CO 80204	Area to be Acquired – 25′ – 50″ x 475′ area parallel to US 6 – north side.  Permanent Easement – 20′ x 475′ swath adjacent to acquisition along US 6.  Acquisition area is barren – trees/weeds/dirt. Permanent easement area is oil-stained concrete.  Sheet No. 5.08	Denver Public Schools Hilltop Bus Terminal. USTs reported on site. Confirmed release reported in the LUST database on 9/10/2009. Residual petroleum impacted soil and/or groundwater may be present. A closure letter for the 9/10/2009 LUST incident was received on 11/17/2009. Unknown material handling and disposal practices.  Groundwater flows to the northeast, away from Project footprint.	Medium	Materials Handling and Health and Safety Plan recommended	Although the status of the LUST incident is listed as closed, there is a potential to encounter undocumented/unknown soil/groundwater contamination at this site. Therefore, an ISA is recommended to obtain the status of this site. Depending upon the results of the ISA and type of construction activity at this site such as soil excavation/removal, additional investigation may be warranted to determine if soil/groundwater contamination is present at this site.
18		TE-219	Neostar, LLC, a Colorado limited liability company	Temporary Easement - 10' x 100' sliver along the western side of Federal Blvd.  Area appears to be asphalt/parking area.  Sheet No. 5.07	None	No	N/A	

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
19	Recognized	TE-220	Rui Fen Auyeung and Shun Y. Auyeung  In Alley Dumpster Behind old TRW Bldg. 445 Federal BLVD. Denver, CO 80204	Temporary Easement - 10' x 75' sliver along the western side of Federal Blvd.  Area appears to be asphalt/parking area.  Sheet No. 5.07	ERNS - Hazardous material found in dumpster in alley behind building. No additional information obtained.  Unknown groundwater flow direction.	Low	Materials Handling and Health and Safety Plan recommended	An ISA is recommended at this site to determine the current status of the site such as evidence of inappropriate disposal of hazardous materials.  Materials Handling and Health and Safety Plan is recommended due to the documentation of inappropriate disposal of hazardous materials at this site.
20		TE-221	405 Federal Blvd., LLC	Temporary Easement - 10' x 75' sliver along the western side of Federal Blvd.  Area appears to be asphalt/parking area.  Sheet No. 5.07	None	No	N/A	
21		TE-222	Kayla Hanh Tran	Temporary Easement - 10' x 25' sliver at the corner of Federal Blvd. and West 4 <sup>th</sup> Avenue.  Area appears to be asphalt/parking area.  Sheet No. 5.07	None	No	N/A	

Legend #	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
22		223, 223A, PE-223, PE- 223A, TE- 223	R.W. Properties, LLC	Area to be Acquired – 75' x'100' area west of North Canosa Ct. Area completed cul-de-sac for dead-end street.  20' x 130' sliver along US 6  Temporary Easement – 10' x 170' area adjacent to acquisition are needed for cul-de-sac.  Permanent Easement – 15' x 100' area adjacent to the acquisition along US 6.  Area is asphalt and parking Sheet No. 5.11	None	No	N/A	
23		TE-224	Sun H. Kim	Temporary Easement - 10' x 125' area on the west side of West 7 <sup>th</sup> Avenue and Federal Blvd.  Area is asphalt.  Sheet No 6.01	None	No	N/A	

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
24		225	The Gail G. Gordon Marital Trust, dated November 12, 2009, Gail G. Gordon and BOKF, National Association, dba Colorado State Bank and Trust, Co-Trustees.	Area to be acquired – 110' x 200' area located east of the South Platte River.  Area is vacant with grass and trees present.  Sheet No. 5.13	None	No	N/A	
25	Recognized	PE-226	Lordlan Properties, LLC - 70% Interest & DYNA, LLC, a Colorado Limited Liability Company - 30% Interest	Permanent Easement – 25' x 75' area south of US 6, west of the South Platte River.  Area is concrete/asphalt.  Sheet No. 5.12	None	No	ISA	

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
26	Recognized		Conoco (former Phillips 66/Pester Marketing Company/1 <sup>st</sup> STOP #1207) 438 Federal BLVD. Denver, CO 80204	This property appears to be on the southeast corner of Federal and Short Place. Not showing any ROW needed at this address.	Confirmed release reported in the LUST database on 7/6/2011. Gas station with USTs currently in use on property. Three monitoring wells observed in alley behind site. Fourteen unmarked 55-gallon drums observed behind gas station building. Petroleum impacted groundwater was reported offsite.  Groundwater flows to the northeast, away from Project footprint along Federal Blvd., but toward the W 5 <sup>th</sup> Avenue Project footprint.	Medium	ISA	A CAP is currently being developed for this site. Therefore, clean-up efforts at this site have not begun and the extent/level of contamination may not be fully known. Due to the uncertainty of the extent/level of contamination at this site, an ISA is recommended to determine current status of the site.
27	Recognized		Bryant Street Phillips 66 510 Bryant Street Denver, CO 80204	Not showing any ROW needed at this address.	Gas station with USTs currently in use on property. Confirmed release reported in the LUST database on 5/11/2006. Petroleum impacted groundwater on- and off-site. The EDR reported that the status of the LUST incident was reported as closed on 8/6/2007.  Groundwater flows to the northeast, toward the Project footprint along US 6.	Medium	ISA	An ISA is recommended at this site to determine the current status of this site

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
28	Recognized		Ryder Truck Rental 0155 550 Bryant Street Denver, CO 80204	Not showing any ROW needed at this address.	Rental truck facility. FINDS site. RCRA Conditionally Exempt Small Quantity Generator – no violations reported. UST and LUST site. Known petroleum impacted soil and groundwater on the property. A closure letter was received on 2/11/2003.  Groundwater flows to the northwest, toward the Project footprint along US 6.	Medium	ISA	An ISA is recommended at this site to determine the current status of this site.
29	Potential		Proctor Production/F uji Photo Film USA INC /Associated Stationer INC 501 Raritan Way Denver, CO 80204	Not showing any ROW needed at this address.	Commercial building. USTs permanently closed at property. No leaks or spills reported. Unknown site conditions.  Unknown groundwater flow direction.	Medium	ISA	An ISA is recommended at this site to determine the current status of this site.
30	Recognized		Conrads Inc. (Warehouse) [SIC]/Kenny Electrical Service 595 Quivas Street Denver, CO 80204	Not showing any ROW needed at this address.	Commercial building. Former location of Conrads Inc. UST and LUST site. Residual petroleum impacted soil may be located on property. A closure letter was received on 8/14/1997.  Groundwater flows to the west, northwest, toward the Project footprint along US 6.	Medium	ISA	An ISA is recommended at this site to determine the current status of this site.

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
31	Recognized		Sears Roebuck & Co. 1701 W. US 6 Denver, CO 80204 and 701 Osage Street Denver, CO 80219	Not showing any ROW needed at this address.	Warehouse. UST, LUST, and ERNS site. Known petroleum impacted soil and groundwater on site. The status of this site is listed as being enrolled in the LUST TRUST FUND Program.  Groundwater flows to the west, northwest, toward the Project footprint along US 6.	High	ISA	An ISA is recommended at this site to determine the current status of this site.
32	Recognized		UPRR Burnham Yard 6 <sup>th</sup> and Osage Denver, CO 80204	Not showing any ROW needed at this address.	US 6 and Osage Street. ERNS site. Known petroleum impacted groundwater in area and vicinity of US6/I-25 interchange.  Groundwater flows to the west, northwest, toward the Project footprint.	Medium	ISA	An ISA is recommended at this site to determine the current status of this site.
33	Recognized		Landfill 500 Julian Street Denver, CO 80204	Not showing any ROW needed at this address.	Unknown use or contents. Unknown site conditions (potential groundwater contamination and methane).  Unknown groundwater flow direction.	Low	ISA	An ISA is recommended at this site if subsurface work is necessary within 1000 feet.

Legend#	Type of Environmental Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations
34	Recognized		Landfill[Calif ornia Expanded Metals Co./Champio n Fence Co./Southwe st Properties 490 Osage Street Denver, CO 80204	Not showing any ROW needed at this address.	Unknown use or contents. Unknown site conditions (potential groundwater contamination).  Groundwater flows to the west, northwest, toward the Project footprint.	Low	ISA	An ISA is recommended at this site to determine the current status of this site.
35	Recognized		Rio Grand [SIC] Co. Residential Products Div. 500 Osage Street Denver, CO 80204	Not showing any ROW needed at this address.	Manufacturing facility. FINDS, UST and LUST site. Related to the US 6 and Osage UPRR- Burnham Yard ERNS site. Known petroleum impacted groundwater and soil in area and vicinity of US6/I-25 interchange. The status of the LUST is listed as closed on 9/15/2003.  Groundwater flows to the west, northwest, toward the Project footprint.	Medium	ISA	An ISA is recommended at this site to determine the current status of this site.
36	Recognized		PCB- Capacitor Cleanup 5 <sup>th</sup> and Decatur Street	Not showing any ROW needed at this address.	CERCLIS site. RCRA Small Quantity Generator – no reported violations. No additional information available and site conditions are unknown.  Unknown groundwater flow direction.	Low	ISA	An ISA is recommended at this site to determine the current status of this site.

Legend #	Type of Environmenta Conditions	ROW Parcel Number	Property Name(s) and Address	Amount of ROW Required at Site/Description of ROW Acquired	Environmental Conditions (Based on Information available at time of 2012 Investigation)	2012 Potential Environmental Concern Ranking	Recommendations	Reasons for Recommendations	
37	Recognized		Southbound Ramp 6 <sup>th</sup> Avenue to I- 25	Not showing any ROW needed at this address.	ERNS - Diesel tanker overturned and fell into South Platte River. Residual soil and groundwater contamination may be present.  Unknown groundwater flow direction.	Low	ISA	An ISA is recommended at this site to determine the current status of this site.	
38	Recognized		Landfill 500 Alcott Street Denver, CO 80204 –	Not showing any ROW needed at this address.	Unknown use or contents. Unknown site conditions (potential groundwater contamination and methane).  Unknown groundwater flow direction.	Low	ISA	An ISA is recommended at this site to determine the current status of this site.	
	RC	ROW parcel with identified hazmat							
	RC	W parcel with no	identified hazmat	t					
	Ide	ntified hazmat wi	thin study area			-			

Source: 2005 MESA, FEIS, and 2011 ISA

Legend No. 1 – Fergs Enterprise, LLC, a Colorado limited liability company/Marco's Auto Tech - 690 Federal Blvd. Denver, CO 80204

This site is a closed LUST site located at 690 Federal Boulevard and is an automotive garage that performs various repair services on automobiles. According to the environmental database report, this site is listed in the LUST database with two USTs that are permanently closed. A closure letter for the LUST incident was received on June 15, 2000. CDOT completed an ISA on 4/1/11.

Based on the area topography and various other resources, groundwater flows in a northeasterly direction, away from the Project Footprint. However, this site is located to the north of the site identified as Legend Number 3, a LUST site, with a recent discovery of benzene in soil and groundwater samples above the CDPHE clean-up standards (see Legend Number 3 discussion) collected during a subsurface investigation conducted in July 2012. The current right-of-way plans indicate that entire property would be acquired to accommodate the Project. Therefore, due to the site's listing in the LUST database, acquisition of the entire property, and recent discovery of soil and groundwater contamination at a site (Legend No. 3) located to the south of this site, and the direction of groundwater flow, this site received an environmental concern ranking of Medium.

Legend No. 2 - U.S. Motels Federal, LLC - 620 Federal Blvd. Denver, CO 80204

This site is located at 620 Federal Boulevard and is a Days Inn motel. This site was not identified in any of the environmental databases.

Based on the area topography and various other resources, groundwater flows in a northeasterly direction at this site. The northern portion of the site may be impacted by the dewatering concerns identified at the Legend Number 3 site due to the direction of groundwater flow. The current right-of-way plans indicate that temporary easements will be required from the southern and northern portions of this site. Therefore, due to the results of the October 2012 limited subsurface investigation at Legend Number 3 site, direction of groundwater flow, and temporary easement requirements at this site, this site received an environmental concern ranking of Low.

Legend No. 3 –Colorado Department of Transportation/Austria Motors - 642 Federal Blvd. Denver, CO 80204

This site is a closed LUST site located at 642 Federal Boulevard and was the former site of Austria Motors. However, the site is currently an empty lot that is partially paved. According to the environmental database report this site is listed in the LUST database with four USTs that are permanently closed. An NFAR for the LUST incident was received on July 7, 1999. However, soil and groundwater samples (boring location - MH-11) collected at this site during the limited subsurface investigation conducted in July 2012 revealed the presence of benzene in soils at 30 feet below grade (bgs) that was above the CDPHE Soil Cleanup Standards (July 2011) for residential soil and worker clean up and the groundwater protection benzene standard. Due to this discovery, CDOT conducted an additional subsurface investigation in October 2012 to determine the extent/level of soil and groundwater contamination at this site. The results of the October 2012 soil samples laboratory analysis

reported concentrations of total metals in the soil samples which were below the CDPHE HMWMD July 2011 CSEV Table values. Therefore, the metals do not appear to be compounds of concern at the site.

The results of the October 2012 groundwater samples indicate that the values of several of the metals reported in the MH-15 groundwater sample could pose a problem for disposal if groundwater is encountered during excavation, and if excavation dewatering is required for construction. However, encountering these soils may not be likely considering the depths.

Based on the area topography and various other resources, groundwater flows in a northeasterly direction, away from the Project Footprint. However, due to a portion of this site being within the current right-of-way plans including a temporary easement, site's listing in the LUST database, and the recent discovery of soil and groundwater contamination above clean up levels, this site received an environmental concern ranking of Medium.

Legend No. 16 – Charles S. Yamaguchi and Chiseka Yamaguchi/ Sound on Wheels (former KOK Auto Repair and Body Shop/Yamaguchi Property) - 450 Federal Blvd. Denver, CO 80204

This site is an active LUST site located at 450 Federal Boulevard and is currently an automotive accessories garage. According to the environmental database report, this site is listed in the LUST database as a site currently undergoing corrective actions for a confirmed release of petroleum reported in May 1994.

Based on the area topography and various other resources, groundwater flows in a northeasterly direction. Based on the current right-of-way plans, a temporary easement from this site will be required along the southeast corner of West 5<sup>th</sup> Ave. Therefore, due to the site's listing in the LUST database as a site undergoing corrective actions, right-of-way acquisition from the site in the form of a temporary easement, and direction of groundwater flow, this site received an environmental concern ranking of High.

Legend No. 17 – Denver Public Schools Hilltop Bus Terminal - 2800/2929 West 7<sup>th</sup> Avenue Denver, CO 80204

This site is a closed LUST site located at 2800 W. 7<sup>th</sup> Avenue. This site is a bus terminal and re-fueling area for the Denver Public Schools. The site is located 100 to 500 feet north of the westbound off-ramp to 6<sup>th</sup> Avenue from Federal Boulevard. According to the environmental database report two LUST incidents, one in 1989 and one in 2009, have been reported at this site. A closure letter has been received for both incidents. In addition, eight USTs are reported to be in-use at this site and range in size from 250-gallons to 20,000-gallons.

Based on the area topography and various other resources, groundwater flows in a northeasterly direction away from the Project Footprint. The current right-of-way plans indicate that a portion of this site (area located parallel to the north of side of US 6) will be acquired by the Project. A permanent easement will also be required in the same area of the right-of-way acquisition. Therefore, due to the site's listing in the LUST database, acquisition of right-of-way from this site, and the current activities

conducted at this site that includes bus re-fueling, this site received an environmental concern ranking of Medium.

#### 3.2.1.4 LUST Sites within the Study Area of the Project Footprint

Six LUST sites (former and active) were identified within the study area of the Project Footprint. These sites were located immediately adjacent, or within close proximity, (generally a few hundred feet or less) to the Project Footprint. Currently, it is not anticipated that the acquisition of right-of-way would be acquired from these sites. However, based on the type of environmental concern (i.e., LUST site) these sites were further evaluated to determine their environmental concern ranking in regards to the Project. The sites are listed in Table 4 and identified with the legend numbers 26, 27, 28, 30, 31, and 35. A summary of these sites is provided in the following paragraphs.

Legend No. 26 – Conoco (former Phillips 66/Pester Marketing Company/1<sup>st</sup> STOP #1207) – 438 Federal Blvd. Denver, CO 80204

This site is an open LUST site located at 438 Federal Boulevard and is currently a Conoco gas station; however, it was known as a Phillips 66 gas station at the time of the 2005 MESA. The site is located less than 100 feet south of the eastbound on-ramp to US 6 from Federal Boulevard. According to the environmental database report, three USTs are reported to be in-use at this site that include one 10,000-gallon UST filled with unleaded regular gasoline, one 8,000-gallon UST filled with unleaded premium gasoline, and one 6,000-gallon UST filled with diesel fuel. The site was reported in the LUST database on July 6, 2011 for a confirmed release of petroleum products. The CDPHE Colorado Storage Tank Information System (COSTIS) web site indicates that a Corrective Action Plan (CAP) is currently being developed for the clean-up of the LUST incident.

During the 2012 windshield survey, three monitoring wells were observed in the alley behind the gas station and 14 unlabeled 55-gallon drums were observed behind the gas station building (**Appendix B** – Photo Log).

Based on the area topography and various other resources, groundwater flows in a northeasterly direction. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at this site as it is beyond the Project Footprint. Therefore, based on the site's listing in the LUST database with required corrective actions, direction of groundwater flow towards the Project Footprint along West 5<sup>th</sup> Ave., unknown extent of soil and groundwater contamination (unknown at the time of this report), and no acquisition of right-of-way from this site, this site received an environmental concern ranking of Medium.

Legend No. 27 - Bryant Street Phillips 66 - 510 Bryant Street, Denver, CO 80204

This site is a closed LUST site located at 510 Bryant Street and is approximately 100 to 500 feet south of the Project Footprint. According to the environmental database report, four USTs are reported to be inuse at this site and include one 10,000-gallon UST filled with unleaded regular gasoline, one 3,000-gallon

UST filled with unleaded premium gasoline, one 3,000-gallon UST filled with diesel fuel, and one 300-gallon UST filled with used oil. The site was reported in the LUST database on May 11, 2006 for a confirmed release of petroleum products. A closure letter was received on August 6, 2007 for the reported LUST incident at this site. This site was also identified in the 2005 MESA as a site with petroleum impacted groundwater (onsite and offsite) above Colorado state standards (2005 MESA). In addition, the 2005 MESA stated that petroleum impacted soil may also be present on- and/or offsite. During the 2012 windshield survey, no evidence was observed that suggests active remediation and/or monitoring activities are currently taking place at this site.

Based on the area topography and various other resources, groundwater flows in a northeasterly direction at this site, towards the Project Footprint along US 6. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at this site as it is beyond the Project Footprint. Therefore, based on the site's listing in the LUST database with currently no active or required remediation, distance of site from the Project Footprint, and no acquisition of right-of-way from this site, this site received an environmental concern ranking of Medium.

Legend No. 28 - Ryder Truck Rental # 0155 - 550 Bryant Street, Denver, CO 80204

This site is a closed LUST site located at 550 Bryant Street and is less than 100 ft south of the US 6 Project Footprint. The site is currently a rental truck office and fueling facility. According to the environmental database records, three USTs are reported to be in-use at this site and include one 20,000-gallon UST filled with diesel, one 4,000-gallon UST filled with lube, and one 2,500-gallon UST filled with used oil. In addition, one 10,000-gallon UST for gasoline and one 12,000-gallon UST for diesel were removed from the site in October 1999. Approximately 650 yds³ of petroleum impacted soil were removed from the site. Eight additional USTs ranging in size from 560-gallons to 12,000-gallons have also been permanently closed on the site. A closure letter was received on February 4, 2004 as clean up actions at the site have met the criteria the State uses for determining adequate clean up. However, benzene impacted groundwater is present on-site and residual petroleum impacted soil may also be present.

Based on the area topography and various other resources, groundwater flows in a northwesterly direction at this site, towards the Project Footprint along US 6. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at this site. Therefore, based on the site's listing in the LUST database as a site that has met the required clean up criteria and no acquisition of right-of-way from this site, this site received an environmental concern ranking of Medium.

Legend No. 30 – Conrads Inc. (Warehouse){SIC}/Kenny Electrical Service – 595 Quivas Street, Denver, CO 80204

This site is a closed LUST site located at 595 Quivas Street, between Quivas Street and Raritan Way. According to environmental database records, two USTs were removed from the site in October 1996. The site was reported in the LUST database due to the discovery of petroleum impacted soil and

groundwater that was identified in the tank excavation. However, laboratory analytical results for total petroleum hydrocarbons (TPH) were below the State clean-up standard of 500 ppm. A groundwater sample was not collected. A closure letter for the site was received on August 18, 1997. However, residual petroleum impacted soil and groundwater may be present at the site.

Based on the area topography and various other resources, groundwater flows in a west to northwesterly direction at this site, towards the Project Footprint along US 6. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at this site. Therefore, based on the site's listing in the LUST database as a site that, at this time, has received an NFAR, no other reported violations involving hazardous materials, distance of site in relation to the Project Footprint, and no acquisition of right-of-way from this site, this site received an environmental concern ranking of Medium.

Legend No. 31 – Sears Roebuck & Co. – 1701 W. US 6, Denver, CO 80204 and 701 Osage Street, Denver, CO 80219

This site is a closed LUST site located at 1701 W. 6th Avenue. The site consists of a retail outlet facility that is located less than 100 ft north of US 6, between Seminole Road and I-25. According to environmental database records, a 4,000-gallon and 6,000-gallon UST for diesel were removed from the site in October 1988. The site was reported in the LUST database due to the discovery of petroleum impacted soil and groundwater identified on-site. A pump and treat system was reportedly installed on the property and several thousand gallons of petroleum product were removed in 1988. On May 18, 2001 the site was transferred to the LUST TRUST FUND Program.

Based on the area topography and various other resources, groundwater flows in a west to northwesterly direction at this site, towards the Project Footprint along US 6. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at this site. Therefore, based on the site's listing in the LUST database with a status of "closed", distance of site in relation to the Project Footprint, and no acquisition of right-of-way from this site, this site received an environmental concern ranking of High.

Legend No. 32 – UPRR Burnham Yard – 6<sup>th</sup> and Osage, Denver, CO 80204

This site is bounded to the north by 8th Avenue, to the south by 3rd Avenue, to the east by the Union Pacific Burnham railroad yard, and to the west by Quivas Street and the Consolidated Main Line railroad tracks. This site is identified in as an ERNS site. According to environmental records, groundwater in the area has been identified as containing elevated levels of petroleum TEPH in exceedences of 3,100 mg/l. Petroleum stained soils have also been observed in the area (2005 MESA).

In addition, this site has been identified as a one of the three potential sources of a petroleum plume that has resulted in soil and groundwater contamination on the north and south side of US 6. The three suspected sources include: the UPRR Burnham Yard (Legend No. 32), the Rio Grande Products site

(Legend No. 35) at 500 Osage St., and an abandoned UPRR diesel pipeline located east of the Rio Grande Products site. The UPRR Burnham Yard site is the source of the contamination north of 6th Avenue, and the Rio Grande Products site is the source of the contamination south of 6th Avenue. Approximately 670 linear ft of the storm drain located southwest of the UPRR Burnham Yard has been sealed, and a Corrective Action Plan approved for the UPRR Burnham Yard site. The lining and sealing of the storm drain is intended to prevent further diesel seepages into the stormwater drain from groundwater. However, diesel impacted groundwater is seeping into the stormwater drain from the south. The Rio Grande Products Site overlies the likely source of the diesel plume located south of 6<sup>th</sup> Avenue (2005 MESA).

Based on the area topography and various other resources, groundwater flows in a west to northwesterly direction at this site, towards the Project Footprint. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at these sites. Therefore, based on these sites listing in the LUST database, distance of site in relation to the Project Footprint, known/suspected soil and/or groundwater contamination, and no acquisition of right-of-way from this site, these sites received an environmental concern ranking of Medium.

Legend No. 34 – Landfill/California Expanded Metals Co./Champion Fence Co./Southwest Properties – 490 Osage Street, Denver, CO 80204

This site is a closed LUST site located at 490 Osage Street, just south of the Legend No. 35 site. According to environmental database records, site clean-up for the LUST incident was completed on October 20, 1993. On October 28, 1993, the site received a closure letter for the LUST incident.

Based on the area topography and various other resources, groundwater flows in a west to northwesterly direction at this site, towards the Project Footprint. The current right-of-way plans indicate that the acquisition of right-of-way will not be required at this site. Therefore, based on the site's listing in the LUST database as a site that, at this time, has received an NFA, distance of site in relation to the Project Footprint, and no acquisition of right-of-way from this site, this site received an environmental concern ranking of Medium.

Legend No. 35 - Rio Grande [SIC] Co. Residential Products Div. - 500 Osage Street, Denver, CO 80204

This site is a closed LUST site located at 500 Osage Street, just south of US 6 and north of the Legend No. 34 site. According to environmental database records, the status of the LUST incident was reported as closed on September 15, 2003. However, the 2005 MESA reported that this site likely overlies the source of the diesel impacted groundwater that is seeping into a stormwater drain associated with the Legend No. 32 site (2005 MESA). The 2005 MESA also indicated that petroleum contaminated soil and groundwater are located on the site and in the vicinity of existing I-25 and 6th Avenue (2005 MESA).

Based on the area topography and various other resources, groundwater flows in a west to northwesterly direction at this site, towards the Project Footprint. The current right-of-way plans

indicate that the acquisition of right-of-way will not be required at this site. Therefore, based on the site's listing in the LUST database, distance of site in relation to the Project Footprint, and no acquisition of right-of-way from this site, this site received an environmental concern ranking of Medium.

Based on the hazardous materials concerns addressed in this report, Table 5 lists the two sites with a High risk for environmental contamination and Figure 9 includes those sites and the known landfill areas in proximity to the Project footprint.

**Table 5. Summary of High Risk Sites** 

Legend #	ROW Parcel Number	Property Name(s) and Address	ROW Required / Environmental Conditions Summary	2012 Potential Environmental Concern Ranking
16	TE-217	Charles S. Yamaguchi and Chiseko Yamaguchi Sound on Wheels (former KOK Auto Repair and Body Shop /Yamaguchi Property) 450 Federal BLVD. Denver, CO 80204	Temporary Easement – 10' x 200' sliver on the southeast corner of West 5 <sup>th</sup> Avenue and Federal.  Area is gravel and asphalt.  Sheet No. 5.07  Automotive repair and supply facility. Former gas station with reported UST and LUST. Known petroleum impacted soil and groundwater on the property. A CAP and monitoring activities are currently in place at this site.  Groundwater flows to the west, northwest, toward the Project footprint along US 6	High
31		Sears Roebuck & Co. 1701 W. US 6 Denver, CO 80204 and 701 Osage Street Denver, CO 80219	Not showing any ROW needed at this address.  Warehouse. UST, LUST, and ERNS site. Known petroleum impacted soil and groundwater on site. The status of this site is listed as being enrolled in the LUST TRUST FUND Program.  Groundwater flows to the west, northwest, toward the Project footprint along US 6	High
	ROW parcel with identified hazmat			
	Identified hazmat within study area			



Figure 9: High Risk and Landfill Sites

#### 3.2.1.5 Asbestos and Lead Based Paint Analysis on US 6 Bridge Structures

Five bridges, Federal Boulevard Bridge (F-16-EK), Bryant Street Bridge (F-16-EN/EM), South Platte River Bridge (F-16-EF), I-25 Bridge (F-16-DU), and the BNSF Railway Bridge (F-16-EJ), will be replaced by the Project. Therefore, paint samples and materials suspected to contain asbestos were collected from the US 6 Bridge structures (Structure IDs. F-16-EK, F-16-EN/EM, F-16-EF, F-16-DU, and F-16 EJ) and sent to a laboratory for analysis. The laboratory analysis revealed that none of the bridge structures contained asbestos based materials. However, lead based paint was detected on the bridge structure over the BNSF Railroad (F-16-EJ). The paint colors identified as containing lead include the silver paint (0.07% lead), the brown paint (7.246% lead), and the gray paint (2.693% lead) (2011 ISA).

#### 3.2.1.6 Landfill Sites

Landfill sites in the project area are depicted in Figure 9 and described in further detail in Appendix A. If buried construction debris is encountered during construction activities, the Colorado Department of Public Health and Environment's Hazardous Materials and Waste Management Division's Asbestos Contaminated Soil Guidance Document (CDPHE 2007) will be followed, in accordance with the Solid

Waste Regulations. Soil characterization, management plans, and standard operating procedures should be implemented and submitted pursuant to Section 5.5.4(B) of the Solid Waste Regulations as defined in the Regulations Pertaining to Solid Waste Sites and Facilities 6 CCR 1007-2 (CDPHE, 2008), to minimize worker and public exposure and to ensure the construction debris is handled and disposed of in accordance with applicable regulations.

#### 4. MITIGATION RECOMMENDATIONS

#### 4.1 As Presented in FEIS and/or 2007 ROD

#### 4.1.1 **Right-of-Way Acquisition**

The 2006 FEIS and 2007 ROD indicated that properties with potential or recognized environmental conditions would be partially or completely acquired for the US 6 Mainline Improvements and Bridge Projects. Tables 4.13-2 to 4.13-5 in the FEIS include the recommended requirements for ROW acquisition. The CDOT ROW process is discussed in Section 4.13.3.2 of the FEIS.

#### 4.1.2 Known Soil and Groundwater Contamination

Active LUST sites would be acquired for ROW for the Project (See Tables 4.13-2 to 4.13-5 in the FEIS). In conjunction with final design, a detailed review of OPS files related to these properties would identify the results of any additional site investigations conducted at these properties, remedial systems or actions installed at the properties, and quarterly monitoring requirements. Prior to acquisition of these properties, coordination with OPS would be required. If site characterization and/or remediation have not been completed, CDOT may be required by OPS to complete these activities after acquisition. The OPS requirements may include:

- Removal of any underground storage tanks
- Excavation and management of petroleum contaminated soil
- Modifications to or redesign of remediation systems
- Replacement of any monitoring wells destroyed during construction
- Long-term groundwater monitoring

During the ROW acquisition process, additional properties may require similar actions depending on the results of the ISA. Prior to construction, the contractor should prepare a dewatering plan and obtain all required dewatering and remediation permits through CDPHE.

#### 4.2 Changes Based on the Project

Based on the review of the 2005 MESA, FEIS, as well as a 2011 ISA, new information presented in the 2012 EDR and various other agency databases, the findings of the 2012 site reconnaissance, and the limited subsurface investigations conducted in December 2011, July 2012 and October 2012; there is a potential to encounter contaminated soil and groundwater throughout the Project Area and will be addressed as described below. CDOT is conducting a Phase II investigation at two locations to determine soil/groundwater contamination presence, described in the following section.

#### 4.2.1 Soil and Groundwater Contamination Investigations

Based on the 2012 design and analysis, six properties with potential or recognized environmental conditions will be partially or completely acquired for the Project. Within Table 4, there are descriptions of the six properties that CDOT is planning to acquire. Five of the sites to be acquired have Medium or Low risk rankings so no additional investigation is required. The only site with a High risk ranking to be acquired is 450 Federal Blvd (Legend # 16 – Charles S. Yamaguchi and Chiseka Yamaguchi/ Sound on Wheels). A 10 foot by 200 foot sliver of the site is needed as a temporary easement and therefore no additional investigation is required.

Given the results of the 2005 MESA, 2011 ISA, and 2012 hazardous materials analysis, including the potential petroleum soil and groundwater contamination around US 6 and the BNSF Bridge, CDOT is conducting a Phase II investigation at two locations: 1) the area under/around the BNSF Bridge and 2) the area around the location of the Tunnel/I-25 Bridge to further determine if soil/groundwater contamination is present in these areas. CDOT will provide the Contractor the Phase II report which the Contractor must use to complete the HASP, MMP, necessary CDPHE remediation permits, and any other recommendations.

[The Phase II investigation discussed above has been completed and is included in the appendices as: RMC Consultants. January 2013. Hazardous Material Site Investigation. U.S. Highway 6 Bridges at Interstate 25 and BNSF Railroad. RMC Consultants Project E12-023-154.]

#### 4.2.2 *Additional Requirements*

Given the evidence that RCRA metals are likely present in soil and groundwater throughout the Project area, the necessary acquisition of properties with known/suspected contaminated soil and groundwater, and documented presence of lead based paint on two of the bridge structures, a MMP is recommended as well as a HASP, which is required by section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2011). Prior to demolition of any structures or removal of utility lines, materials abatement will be conducted, as necessary, according to Section 250, Environmental, Health, and Safety Management, of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2011) and relevant Occupational Safety and Health Administration (OSHA) and other regulatory requirements. As discussed in Section 3.1.2, the HASP should provide considerations for potential contamination found around the BNSF Railway under the US 6 Bridge.

A State Certified Asbestos Building Inspector (CABI) shall inspect for the presence of asbestos during subsurface work on potentially asbestos containing materials or when building/construction debris is encountered. If asbestos is found, all further work (soil-related) shall proceed in accordance with CDOT's 250 spec, the Air Quality Control Commission Regulation No. 8 Part B, and the Colorado Department of Public Health and Environment Hazardous Materials and Waste Management Division Section 5.5 of the Regulations (6 CCR 1007-2).

If abandoned landfills are present within 1,000 feet of construction activities, the Health and Safety Plan will need to include provisions for assessing and monitoring air quality at all utility trenches, drainage structures, and similar underground construction (i.e., caissons) areas prior to and during intrusive activities to ensure worker safety.

#### REFERENCES

American Society for Testing and Materials. 2000. ASTM Standards on Environmental Site Assessments for Commercial Real Estate, E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

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FirstSearch Technology Corporation. April 30, 2012. Environmental Database Report

CDOT. 2006. Environmental Impact Statement (EIS) Valley Highway – Logan Road to 6<sup>th</sup> Avenue.

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Pinyon Environmental Engineering Resources, Inc. 2011. Initial Site Assessment. US 6 Bridge over the BNSF Bridge.

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Olsson Associates. August 2012. Limited Subsurface Investigation and Temporary Groundwater Monitoring Well Installation, U.S. Highway 6 Bridges and Federal, Denver, Colorado. Olsson Associates Project #A11-2359.

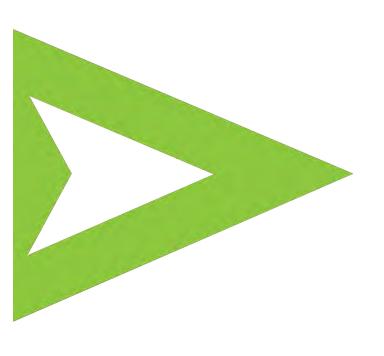
Olsson Associates. November 2012. Limited Subsurface Investigation and Temporary Groundwater Monitoring Well Installation, Former Austria Motors, Inc. 642 Federal Boulevard, Denver, Colorado. Olsson Associates Project #C11-2359.

RMC Consultants. January 2013. Hazardous Material Site Investigation. U.S. Highway 6 Bridges at Interstate 25 and BNSF Railroad, Denver, Colorado. RMC Consultants Project E12-023-154.

# APPENDIX A 2012 FirstSearch EDR



## **ENVIRONMENTAL FIRSTSEARCH REPORT**



## **TARGET PROPERTY:**

**US 6** 

**6TH AVE** 

**DENVER, CO 80219** 

**JOB NUMBER: US 6** 

**PREPARED FOR:** 

Target Site: 6TH AVE

DENVER, CO 80219

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS	
NPL	Υ	02-01-12	1.00	0	0	0	4	4	0	8	
NPL Delisted	Υ	02-01-12	0.50	0	0	0	0	-	0	0	
CERCLIS	Υ	02-27-12	0.50	0	0	0	2	-	0	2	
NFRAP	Υ	02-27-12	0.50	0	0	1	0	-	0	1	
RCRA COR ACT	Υ	03-13-12	1.00	0	0	1	2	4	0	7	
RCRA TSD	Υ	03-13-12	0.50	0	0	1	2	-	0	3	
RCRA GEN	Υ	03-13-12	0.25	0	4	8	-	-	0	12	
RCRA NLR	Υ	03-13-12	0.25	0	7	10	-	-	0	17	
Federal Brownfield	Υ	02-01-12	0.50	0	0	0	0	-	0	0	
ERNS	Υ	04-13-12	0.12	0	4	-	-	-	29	33	
Tribal Lands	Υ	12-15-08	1.00	0	0	0	0	0	1	1	
State/Tribal Sites	Υ	08-01-07	1.00	0	0	0	0	0	0	0	
State Spills 90	Υ	04-15-12	0.12	0	4	_	-	-	27	31	
State Spills 80	Υ	NA	0.25	0	0	0	_	_	0	0	
State/Tribal SWL	Υ	07-01-11	0.50	0	3	2	6	-	18	29	
State/Tribal LUST	Υ	04-24-12	0.50	0	16	18	39	_	6	79	
State/Tribal UST/AST	Υ	04-24-12	0.25	0	21	20	_	_	0	41	
State/Tribal EC	Υ	04-24-12	0.50	0	0	0	0	_	0	0	
State/Tribal IC	Υ	NA	0.25	0	0	0	_	-	0	0	
State/Tribal VCP	Υ	04-20-12	0.50	0	0	0	2	-	6	8	
State/Tribal Brownfields	Υ	08-01-07	0.50	0	0	0	0	_	0	0	
Receptors	Υ	01-01-05	0.50	0	0	0	0	-	0	0	
NPDES	Υ	03-05-12	0.25	0	0	0	_	-	3	3	
FINDS	Υ	05-29-09	0.25	0	32	38	_	-	4	74	
TRIS	Υ	01-04-12	0.25	0	1	5	_	-	0	6	
HMIRS	Υ	04-15-12	0.25	0	0	0	_	-	7	7	
NCDB	Υ	02-09-12	0.05	0	0	-	_	-	0	0	
PADS	Υ	10-21-11	0.25	0	0	1	_	-	0	1	

#### Notice of Disclaimer

Due to the limitations, constraints, and inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

#### Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSearch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

- Continued on next page -

Target Site: 6TH AVE

DENVER, CO 80219

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS	
AIRS	Υ	01-18-12	0.05	0	1	-	-	-	1	2	
DOCKET	Υ	01-09-06	0.25	0	1	0	-	-	0	1	
Nuclear Permits	Υ	04-30-99	0.50	0	0	0	0	-	0	0	
Releases	Υ	04-13-12	0.25	0	0	1	-	-	0	1	
Federal Other	Υ	01-01-10	0.05	0	0	-	-	-	0	0	
SETS PRP	Υ	03-30-11	0.25	0	0	1	-	-	0	1	
State Permits	Υ	NA	0.25	0	0	0	-	-	0	0	
State Other	Υ	01-01-07	0.25	0	0	0	-	-	2	2	
Federal IC/EC	Υ	03-13-12	0.50	0	0	0	0	-	0	0	
Dry Cleaners	Υ	NA	0.25	0	0	0	-	-	0	0	
Meth Labs	Υ	12-02-11	0.12	0	0	-	-	-	2	2	
HW Manifest	Υ	NA	0.25	0	0	0	-	-	0	0	
Vapor Intrusion	Υ	03-06-08	0.25	0	0	0	-	-	0	0	
-TOTALS-				0	94	107	57	8	106	372	

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## Environmental FirstSearch Site Information Report

Request Date: Requestor Name: 04-30-12 John Sell Search Type:

LINEAR 1.283 mile(s)

Requestor Name Standard:

AAI

Job Number: Filtered Report

US 6

Target Site: 6TH AVE

DENVER, CO 80219

Demographics

Sites:

372

Non-Geocoded:

106

Population:

NA

**Radon:** 1 - 8.8 PCI/L

Site Location

Degrees (Decimal)

Degrees (Min/Sec)

<u>UTMs</u>

Longitude:

-105.020415

-105:1:13

Easting:

498250.385

Latitude:

39.725597

39:43:32

Northing:

4397092.602

Elevation: 5

5212

**Zone:** 13

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes:

Code City Name

ST Dist/Dir Sel

Services:

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Liens	No	
Historic Map Works	No	
Online Topos	No	

Target Property: 6TH AVE DENVER, CO 80219 JOB: US 6

TOTAL: 372 GEOCODED: 266 NON GEOCODED: 106 SELECTED: 0

DB Type Map ID Site Name/ID/Status Address Dist/Dir ElevDiff Page No.

No sites found for target address

**Target Property:** 6TH AVE DENVER, CO 80219 JOB: US 6

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	SWL	KNOWN LANDFILL 124/HISTORIC	W BOUNDARIES APPROXIMATE: DENVER CO	0.02 NW	N/A	1
2	FINDS	ROBINSON DAIRY INC COD983797333/	2401 W 6TH AVE DENVER CO 80204	0.03 NE	- 2	2
2	FINDS	ROBINSON DAIRY LLC 110001727445/FRS	2401 W 6TH AVE DENVER CO 80204	0.03 NE	- 2	3
2	TRIS	ROBINSON DAIRY LLC 80204RBNSN241W6/	2401 W 6TH AVE DENVER CO 80204	0.03 NE	- 2	4
2	UST	ROBINSON DAIRY INC 11139/	2401 W 6TH AVE DENVER CO 80204	0.03 NE	- 2	5
2	LUST	ROBINSON DAIRY INC 2251/CLOSED	2401 W 6TH AVE DENVER CO 80204	0.03 NE	- 2	6
2	AIRS	ROBINSON DAIRY INC CO0948581/AIRS DATABASE	2401 W 6TH AVE DENVER CO 80204	0.03 NE	- 2	7
3	SPILLS	UNKNOWN CO97-471/	1701 W 6TH AVE DENVER CO	0.03 SE	- 5	8
3	UST	SEARS ROEBUCK & CO 3026/	1701 W 6TH AVE DENVER CO 80204	0.03 SE	- 5	9
3	LUST	7TH & OSAGE LTT-88/UNKNOWN	7TH & OSAGE DENVER CO	0.03 SE	- 5	10
3	LUST	SEARS ROEBUCK & CO 8481/LUST TRUST	1701 W 6TH AVE DENVER CO 80204	0.03 SE	- 5	11
4	SWL	KNOWN LANDFILL 128/HISTORIC	ON ATHLETIC FIELD, SEC 6TH DENVER CO	0.03 SW	N/A	12
5	ERNS	NRC-582019/FIXED	CORNER OF 6TH AND FEDERAL DENVER CO 80211	0.04 SW	+ 40	13
5	SPILLS	DAYS INN MOTEL 2001-424/	CORNER OF 6TH AND FEDERAL DENVER CO 80211	0.04 SW	+ 40	16
6	FINDS	FROG HOLLOW PARK TRAIL IMPROVEMENT 110043500020/FRS	I-25 & 6 AVE DENVER CO 80204	0.04 SE	N/A	17
7	SWL	KNOWN LANDFILL 129/HISTORIC	APPROX.: BETWEEN KNOX CT. DENVER CO	0.04 SW	N/A	18
8	RCRAGN	RYDER TRUCK RENTAL COD983800780/VGN	550 BRYANT DENVER CO 80204	0.06 SE	- 8	19
8	ERNS	INCIDENT 83-1963-CO/	550 BRYANT ST DENVER CO	0.06 SE	- 8	21
8	FINDS	RYDER TRUCK RENTAL 110002991987/FRS	550 BRYANT DENVER CO 80204	0.06 SE	- 8	22
8	FINDS	RYDER TRUCK RENTAL INC COD983800780/	550 BRYANT ST DENVER CO 80204	0.06 SE	- 8	23

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
8	UST	RYDER TRUCK RENTAL 0155 5605/	550 BRYANT ST DENVER CO 80204	0.06 SE	- 8	24
8	LUST	RYDER TRUCK RENTAL 7948/CLOSED	550 BRYANT ST DENVER CO 80204	0.06 SE	- 8	26
8	LUST	RYDER TRUCK RENTAL INC 1320/CLOSED	550 BRYANT ST DENVER CO 80204	0.06 SE	- 8	27
9	RCRANLR	FUJI PHOTO FILM USA INC COR000204263/NLR	501 RARITAN WAY DENVER CO 80204	0.06 SE	- 2	28
9	FINDS	FUJI PHOTO FILM USA INC 110015847547/FRS	501 RARITAN WAY DENVER CO 80204	0.06 SE	- 2	30
9	UST	ASSOCIATED STATIONER INC PROPERTY 15421/	501 RARITAN WAY DENVER CO 80204	0.06 SE	- 2	31
10	FINDS	DENVER WATER WEST SIDE COMPLEX FIB 110041250598/FRS	QUIVAS AND 6TH AVE DENVER CO 80204	0.06 SE	N/A	32
11	UST	CCOD FIRE STATION #20 8882/	510 KNOX CT DENVER CO 80204	0.06 SW	+ 119	33
11	UST	CCOD FIRE STATION #20 12053/UST	510 KNOX CT DENVER CO 80204	0.06 SW	+ 119	34
11	UST	HWS TECHNOLOGIES 11997/	504 KNOX CT DENVER CO 80204	0.06 SW	+ 119	35
11	UST	JOHN J HEGARTY 3557/	504 KNOX CT DENVER CO 80204	0.06 SW	+ 119	36
11	LUST	CCOD FIRE STATION #20 4945/CLOSED	510 KNOX CT DENVER CO 80204	0.06 SW	+ 119	37
11	LUST	HWS TECHNOLOGIES 3501/CLOSED	504 KNOX CT DENVER CO 80204	0.06 SW	+ 119	38
12	ERNS	IN THE BACK OF THE SHOP NRC-841082/FIXED	635 CANOSA CT DENVER CO 80204	0.07 NE	- 4	39
13	FINDS	SKYLINE BUSINESS FORMS INC 110001726785/FRS	550 RARITAN WAY DENVER CO 80204	0.07 SE	- 5	42
13	FINDS	SKYLINE BUSINESS FORMS INC CO0001986033/	550 RARITAN WAY DENVER CO 80204	0.07 SE	- 5	43
14	UST	AUSTRIA MOTORS INC 14223/	642 FEDERAL BLVD DENVER CO 80204	0.07 NW	+ 40	44
14	LUST	AUSTRIA MOTORS 6193/CLOSED	642 FEDERAL BLVD DENVER CO 80204	0.07 NW	+ 40	45
15	UST	CONRADS INC (CURRENTLY) 7836/	595 QUIVAS DENVER CO 80204	0.07 SE	- 4	46
15	UST	CONRADS WAREHOUSE 13770/	595 QUIVAS DENVER CO 80204	0.07 SE	- 4	47

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
15	LUST	CONRADS WAREHOUSE 5751/CLOSED	595 QUIVAS DENVER CO 80204	0.07 SE	- 4	48
16	FINDS	SKYLINE BUSINESS FORMS INC 110038610795/FRS	550 RARITAN WAY DENVER CO 80204	0.08 SE	N/A	49
17	RCRAGN	DENVER PUBLIC SCHOOL SERVICE BUILD COD980962252/SGN	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	50
17	FINDS	DENVER PUBLIC SCH SVC BUILDING COD980962252/	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	52
17	FINDS	DENVER PUBLIC SCHOOL SERVICE BUILD 110009560233/FRS	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	53
17	UST	DPS HILL TOP FUEL FAC 7513/	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	54
17	LUST	DPS HILL TOP FUEL FAC 10932/CLOSED	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	56
17	LUST	DPS SERVICE BLDG 3964/CLOSED	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	57
17	LUST	DPS SERVICE BLDG 6562/CLOSED	2800 W 7TH AVE DENVER CO 80204	0.09 NW	+ 41	58
18	RCRAGN	THE GLIDDEN CO COR000202747/VGN	637 OSAGE ST DENVER CO 80204	0.09 NE	+ 10	59
18	FINDS	THE GLIDDEN CO 110012236883/FRS	637 OSAGE ST DENVER CO 80204	0.09 NE	+ 10	61
19	FINDS	AGRICULTURAL INDUSTRIAL CHEMICALS 110018930317/FRS	510 BRYANT ST DENVER CO 80204	0.09 SE	- 7	62
19	UST	BRYANT CONVENIENCE 10653/	510 BRYANT ST DENVER CO 80204	0.09 SE	- 7	63
19	LUST	BRYANT CONVENIENCE 10429/CLOSED	510 BRYANT ST DENVER CO 80204	0.09 SE	- 7	64
19	LUST	BRYANT STREET PHILLIPS 10078/OPEN	510 BRYANT ST DENVER CO 80204	0.09 SE	- 7	65
20	FINDS	ROBINSON DAIRY INC CO0002416790/	646 BRYANT ST DENVER CO 80204	0.09 NE	- 5	66
20	FINDS	ROBINSON DAIRY INC 110010689139/FRS	646 BRYANT ST DENVER CO 80204	0.09 NE	- 5	67
20	DOCKET	ROBINSON DAIRY INC 08-1998-0105/ICIS	646 BRYANT ST DENVER CO 80204	0.09 NE	- 5	68
21	FINDS	EMPRESS CHINCHILLA BREEDERS CO COD980452874/	627 OSAGE ST DENVER CO 80204	0.09 NE	+ 10	69
21	FINDS	JOHN PHILLIPS PRINTING CO0000755454/	627 OSAGE ST DENVER CO 80204	0.09 NE	+ 10	70

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
21	FINDS	JOHN PHILLIPS PRINTING 110001724894/FRS	627 OSAGE ST DENVER CO 80204	0.09 NE	+ 10	71
22	RCRANLR	SQUARE D COMPANY COD007084155/NLR	677 ALCOTT DENVER CO 80204	0.10 NE	- 6	72
22	FINDS	SQUARE D CO COD007084155/	677 ALCOTT DENVER CO 80204	0.10 NE	- 6	74
22	FINDS	SQUARE D COMPANY 110002963641/FRS	677 ALCOTT DENVER CO 80204	0.10 NE	- 6	75
23	RCRANLR	DUPONT DE NEMOURS & CO COT090011297/NLR	555 QUIVAS ST DENVER CO 80217	0.10 SE	- 6	76
23	FINDS	DUPONT DE NEMOURS & CO COT090011297/	555 QUIVAS ST DENVER CO 80217	0.10 SE	- 6	78
23	FINDS	DUPONT DE NEMOURS & CO 110003004249/FRS	555 QUIVAS ST DENVER CO 80204	0.10 SE	- 6	79
24	ERNS	INCIDENT 88-18141-CO/	5TH & BRYANT DENVER CO	0.10 SE	- 6	80
25	SPILLS	DENVER SEWER DEPT/PUBLIC WORKS CO96-455/	5TH AND BRYANT STREETS DENVER CO	0.10 SE	- 6	81
26	UST	IVER J ESBENSON CO INC 10743/	666 BRYANT ST DENVER CO 80204	0.10 NE	- 6	82
27	UST	DEVOE PAINT 11260/	657 OSAGE ST DENVER CO 80204	0.10 NE	+ 9	83
28	RCRAGN	UNION PACIFIC RR CO BURNHAM SHOPS COD983790932/VGN	680 SEMINOLE RD DENVER CO 80023	0.11 NE	+ 12	84
28	FINDS	DENVER RIO GRANDE WESTERN RR COD983790932/	680 SEMINOLE RD DENVER CO 80023	0.11 NE	+ 12	86
28	FINDS	UNION PACIFIC RAILROAD COBURNHA 110001427590/FRS	680 SEMINOLE RD DENVER CO 80204	0.11 NE	+ 12	87
28	UST	DENVER LOCOMOTIVE SHOP 2293/	680 SEMINOLE RD DENVER CO 80204	0.11 NE	+ 12	88
28	UST	SPTCO DENVER LOCOMOTIVE PLANT 7431/UST	680 SEMINOLE RD DENVER CO 80204	0.11 NE	+ 12	90
29	RCRANLR	MARCS AUTO CHECK COR000016618/NLR	690 FEDERAL BLVD DENVER CO 80204	0.11 NW	+ 40	91
29	FINDS	MARCS AUTO CHECK 110003002928/FRS	690 FEDERAL BLVD DENVER CO 80204	0.11 NW	+ 40	93
29	UST	MARC S AUTOCHECK 15126/	690 FEDERAL BLVD DENVER CO 80204	0.11 NW	+ 40	94
29	LUST	MARCS AUTOCHECK 8083/CLOSED	690 FEDERAL BLVD DENVER CO 80204	0.11 NW	+ 40	95

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Туре	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
30	RCRANLR	SEARS ROEBUCK AND COMPANY COD114044506/NLR	701 OSAGE ST DENVER CO 80219	0.11 NE	- 6	96
30	FINDS	SEARS ROEBUCK & COMPANY COD114044506/	701 OSAGE ST DENVER CO 80219	0.11 NE	- 6	98
30	FINDS	SEARS ROEBUCK AND COMPANY 110002970651/FRS	701 OSAGE ST DENVER CO 80204	0.11 NE	- 6	99
30	UST	SEARS WAREHOUSE 16080/	701 OSAGE ST DENVER CO 80210	0.11 NE	- 6	100
31	SPILLS	UNKNOWN CO92-127/	5TH AND DECATUR DENVER CO	0.11 SW	+ 26	101
32	UST	ROBINSON DAIRY LLC 18490/	2400 W 7TH AVE DENVER CO 80204	0.11 NE	- 9	102
32	LUST	ROBINSON DAIRY LLC 10752/CLOSED	2400 W 7TH AVE DENVER CO 80204	0.11 NE	- 9	103
33	RCRANLR	ROCKY MOUNTAIN BANK NOTE COD980955199/NLR	2500 W 5TH AVE WHEAT RIDGE CO 80153	0.12 SE	- 9	104
33	FINDS	ROCKY MOUNTAIN BANK NOTE COD980955199/	2500 W 5TH AVE WHEAT RIDGE CO 80153	0.12 SE	- 9	106
33	FINDS	ROCKY MOUNTAIN BANK NOTE 110006488906/FRS	2500 W 5TH AVE WHEAT RIDGE CO 80033	0.12 SE	- 9	107
34	RCRANLR	PPG INDUSTRIES INC COD078343613/NLR	590 QUIVAS ST DENVER CO 80204	0.12 SE	0	108
34	FINDS	PPG INDS INC COD078343613/	590 QUIVAS ST DENVER CO 80204	0.12 SE	0	110
34	FINDS	PPG INDUSTRIES INC 110002968646/FRS	590 QUIVAS ST DENVER CO 80204	0.12 SE	0	111
34	UST	PPG INDUSTRIES INC 7592/	590 QUIVAS ST DENVER CO 80204	0.12 SE	0	112
35	NFRAP	DECATUR PCB CAPICITORS COD983794652/NFRAP-NFRAP-N	2750 W 5TH AVE DENVER CO 80204	0.13 SW	+ 16	113
35	RCRANLR	5TH DECATUR PCB CAPACITOR CLEANUP COD983794652/NLR	DEN CAR POUND YORK AT BRIG DENVER CO 80202	0.13 SW	+ 16	114
35	FINDS	5TH & DECATUR PCB CAPACITOR CLEANU COD983794652/	2750 W 5TH AVE DENVER CO 80202	0.13 SW	+ 16	116
35	FINDS	DECATUR PCB CAPACITORS 110009271082/FRS	2750 W 5TH AVE DENVER CO 80204	0.13 SW	+ 16	117
36	FINDS	SHELL S FINE PRINT 110038611124/FRS	2943 WEST 7TH AVE DENVER CO 80204	0.13 NW	N/A	118
37	RELEASES	UNKNOWN 187885/UNKNOWN (NRC)	7TH STREET & PLATTE RIVER/ DENVER CO	0.14 NE	- 12	119

**Target Property:** 6TH AVE DENVER, CO 80219 JOB: US 6

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
38	FINDS	JOHN PHILLIPS PRINTING 110038610571/FRS	627 OSAGE ST DENVER CO 80204	0.14 NE	N/A	120
39	UST	ELMS INVESTMENT 2969/	730 UMATILLA ST DENVER CO 80204	0.14 NE	- 3	121
39	UST	ELMS INVESTMENT PROPERTY 13424/	730 UMATILLA ST DENVER CO 80204	0.14 NE	- 3	122
39	LUST	ELMS INVESTMENT PROPERTY 5434/CLOSED	730 UMATILLA ST DENVER CO 80204	0.14 NE	- 3	123
40	RCRANLR	BLAIR LABELING SYSTEMS INC COD982596694/NLR	425 FEDERAL BLVD DENVER CO 80204	0.15 SW	+ 41	124
40	FINDS	BLAIR LABELING SYSTEMS INC COD982596694/	425 FEDERAL BLVD DENVER CO 80204	0.15 SW	+ 41	126
40	FINDS	BLAIR LABELING SYSTEMS INC 110002980953/FRS	425 FEDERAL BLVD DENVER CO 80204	0.15 SW	+ 41	127
41	FINDS	SHELL CHEMICAL COMPANY 110002365253/FRS	2943 W 7TH AVE UNK CO 99999	0.15 NW	+ 38	128
42	SWL	KNOWN LANDFILL 130/HISTORIC	BOUNDARIES APPROXIMATE: BO DENVER CO	0.15 SE	N/A	129
43	RCRAGN	E N MURRAY CO INC COD983772815/VGN	707 UMATILLA ST DENVER CO 80204	0.16 NE	- 4	130
43	FINDS	E N MURRAY CO INC 110002984138/FRS	707 UMATILLA ST DENVER CO 80204	0.16 NE	- 4	132
43	FINDS	EN MURRAY CO INC COD983772815/	707 UMATILLA ST DENVER CO 80204	0.16 NE	- 4	133
44	RCRANLR	DENVER & RIO GRANDE WESTERN RAILRO COD000706770/NLR	8TH & OSAGE DENVER CO 80217	0.16 NE	+ 9	134
44	FINDS	UNION PACIFIC RAILROAD CO. 110024260235/FRS	800 SEMINOLE RD DENVER CO 80204	0.16 NE	+ 9	136
44	UST	BURNHAM SHOPS 974/	800 SEMINOLE RD DENVER CO 80204	0.16 NE	+ 9	137
44	LUST	SOUTHERN PACIFIC RAILWAY - BURNHAM 442/CLOSED	800 SEMINOLE RD DENVER CO 80201	0.16 NE	+ 9	140
44	LUST	SOUTHERN PACIFIC RAILWAY BURNHAM Y 447/CLOSED	800 SEMINOLE RD DENVER CO 80201	0.16 NE	+ 9	141
45	FINDS	K O K AUTO REPAIR & BODY SHOP CO0000714568/	450 FEDERAL DENVER CO 00000	0.17 SW	+ 48	142
45	FINDS	K O K AUTO REPAIR & BODY SHOP 110001428170/FRS	450 FEDERAL BLVD DENVER CO 80204	0.17 SW	+ 48	143
45	UST	CHARLES YAMAGUCHI 5393/	450 FEDERAL BLVD DENVER CO 80204	0.17 SW	+ 48	144

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45	UST	YAMAGUCHI PROPERTY 13124/	450 FEDERAL BLVD DENVER CO 80204	0.17 SW	+ 48	145
45	LUST	YAMAGUCHI PROPERTY 5269/OPEN	450 FEDERAL BLVD DENVER CO 80204	0.17 SW	+ 48	146
46	UST	740 INVESTORS 12272/	740 UMATILLA ST DENVER CO 80204	0.17 NE	- 5	147
46	UST	WOLF JOHNSON & MCCORMICK 6273/	740 UMATILLA ST DENVER CO 80204	0.17 NE	- 5	148
46	LUST	740 INVESTORS 2871/CLOSED	740 UMATILLA ST DENVER CO 80204	0.17 NE	- 5	149
47	PRP	MAY D AND F 8272200/PRP	445 BRYANT ST DENVER CO 80223	0.17 SE	- 4	150
48	RCRAGN	HEPPTING LEATHER CLEANERS COD983793860/VGN	3469 W 4TH AVE DENVER CO 80219	0.18 SW	+ 107	151
48	RCRANLR	HEPPTING LEATHER CLEANERS COD983793860/NLR	3469 W 4TH AVE DENVER CO 80219	0.18 SW	+ 107	152
48	FINDS	HEPPTING LEATHER CLEANERS COD983793860/	3469 W 4TH AVE DENVER CO 80219	0.18 SW	+ 107	154
48	FINDS	HEPPTING LEATHER CLEANERS 110002989678/FRS	3469 W 4TH AVE DENVER CO 80219	0.18 SW	+ 107	155
49	RCRAGN	MAY D&F DISTRIBUTION CENTER COD983799776/SGN	445 BRYANT ST DENVER CO 80204	0.18 SE	- 2	156
49	RCRANLR	MAY D&F DISTRIBUTION CENTER COD983799776/NLR	445 BRYANT ST DENVER CO 80204	0.18 SE	- 2	157
49	FINDS	MAY D&F DIST CTR COD983799776/	445 BRYANT ST DENVER CO 80204	0.18 SE	- 2	159
49	FINDS	MAY D&F DISTRIBUTION CENTER 110002991415/FRS	445 BRYANT ST DENVER CO 80204	0.18 SE	- 2	160
50	RCRAGN	PSCO - 7TH AVE SVR CTR COD133896134/SGN	2701 W 7TH AVE DENVER CO 80204	0.19 NW	- 3	161
50	RCRANLR	PSCO - 7TH AVE SVC CTR COD133896134/NLR	2701 W 7TH AVE DENVER CO 80204	0.19 NW	- 3	162
50	FINDS	PUBLIC SERVICE COMPANY 7TH AVENUE 110001393965/FRS	2701 W 7TH AVE DENVER CO 80204	0.19 NW	- 3	164
50	FINDS	PUBLIC SVC CO COD133896134/	2701 W 7TH AVE DENVER CO 80204	0.19 NW	- 3	165
50	LUST	7TH AVENUE SERVICE CENTER 3684/CLOSED	2701 W 7TH AVE DENVER CO 80204	0.19 NW	- 3	166
50	PADS	SEVENTH AVE SERVICE CTR COD133896134/PCB ACTIVITY	2701 W 7TH AVE DENVER CO 80204	0.19 NW	- 3	167

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51	FINDS	K O K AUTO REPAIR & BODY SHOP 110038609609/FRS	450 FEDERAL BLVD DENVER CO 80204	0.19 SW	N/A	168
52	UST	DANA KEPNER CO 6038/	700 ALCOTT ST DENVER CO 80204	0.19 NE	- 9	169
53	RCRATSD	LINCOLN PLATING COMPANY COD007073901/TSD	777 UMATILLA DENVER CO 80204	0.20 NE	- 6	170
53	RCRACOR	LINCOLN PLATING COMPANY COD007073901/CA	777 UMATILLA DENVER CO 80204	0.20 NE	- 6	171
53	RCRAGN	LINCOLN PLATING COMPANY COD007073901/LGN	777 UMATILLA DENVER CO 80204	0.20 NE	- 6	174
53	RCRANLR	LINCOLN PLATING COMPANY COD007073901/NLR	777 UMATILLA ST DENVER CO 80204	0.20 NE	- 6	175
53	FINDS	CAI TECHNOLOGIES COD007073901/	777 UMATILLA DENVER CO 80204	0.20 NE	- 6	178
53	FINDS	LINCOLN PLATING COMPANY DENVER CEN 110000466790/FRS	777 UMATILLA ST DENVER CO 80204	0.20 NE	- 6	179
53	TRIS	LINCOLN PLATING CO. COD007073901/OPEN	777 UMATILLA ST DENVER CO 80204	0.20 NE	- 6	180
53	TRIS	LINCOLN PLATING CO DENVER CENTR 80204CTCHN777UM/OPEN	777 UMATILLA ST DENVER CO 80204	0.20 NE	- 6	181
54	FINDS	COASTAL MART INC 1207 CO0000714873/	438 FEDERAL ST DENVER CO 80204	0.20 SW	+ 49	184
54	FINDS	PESTER MARKETING CO 110001437053/FRS	438 FEDERAL BLVD DENVER CO 80204	0.20 SW	+ 49	185
54	UST	TRIMER ENTERPRISES LLC 9517/	438 FEDERAL BLVD DENVER CO 80204	0.20 SW	+ 49	186
54	LUST	TRIMER ENTERPRISES LLC 11458/OPEN	438 FEDERAL BLVD DENVER CO 80204	0.20 SW	+ 49	187
55	FINDS	JACKSON ICE CREAM COMPANY COD983769274/	400 YUMA ST DENVER CO 80204	0.20 SE	- 9	188
55	FINDS	JACKSON ICE CREAM COMPANY (KROGER) 110000466807/FRS	400 YUMA ST DENVER CO 80204	0.20 SE	- 9	189
55	TRIS	JACKSON & CO. INC. COD983769274/OPEN	400 YUMA ST DENVER CO 80204	0.20 SE	- 9	190
55	TRIS	JACKSON ICE CREAM 80204JCKSN400YU/OPEN	400 YUMA ST DENVER CO 80204	0.20 SE	- 9	191
56	UST	MONFORT FOOD DISTRIBUTING CO 832/	415 YUMA ST DENVER CO 80204	0.20 SE	- 8	193
57	LUST	5TH & OSAGE LTT-86/UNKNOWN	5TH & OSAGE DENVER CO	0.20 SE	+ 9	194

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58	RCRAGN	VISION GRAPHICS INC COR000207530/VGN	750 CANOSA CT DENVER CO 80204	0.21 NE	- 6	195
58	RCRANLR	KEYLINE GRAPHICS COR000207530/NLR	750 CANOSA CT DENVER CO 80204	0.21 NE	- 6	198
58	FINDS	KEYLINE GRAPHICS INCORPORATED 110001397532/FRS	750 CANOSA CT DENVER CO 80204	0.21 NE	- 6	199
58	FINDS	KEYLINE GRAPHICS, INC CO0001240597/	750 CANOSA CT DENVER CO 80204	0.21 NE	- 6	200
59	FINDS	DENVER & RIO GRANDE WESTERN RAILRO COD000706770/	8TH & OSAGE DENVER CO 80217	0.21 NE	+ 10	201
60	FINDS	RIO GRANDE CO RESIDENTIAL PRODUCT CO0000756841/	500 OSAGE ST DENVER CO 80204	0.21 SE	+ 11	202
60	FINDS	RIO GRANDE CO RESIDENTIAL PRODCTS 110001397104/FRS	500 OSAGE ST DENVER CO 80204	0.21 SE	+ 11	203
60	UST	RIO GRANDE CO RESIDENTIAL PRODUCTS 7940/	500 OSAGE ST DENVER CO 80204	0.21 SE	+ 11	204
60	LUST	RIO GRANDE CO RESIDENTIAL PRODUCTS 9337/CLOSED	500 OSAGE ST DENVER CO 80204	0.21 SE	+ 11	205
61	UST	DELTA DRY WALL INC 5251/	2605 W 7TH AVE DENVER CO 80204	0.21 NE	- 7	206
61	LUST	DELTA DRY WALL INC 3722/CLOSED	2605 W 7TH AVE DENVER CO 80204	0.21 NE	- 7	207
62	SWL	KNOWN LANDFILL 131/HISTORIC	AT 4TH & VALLEJO ST DENVER CO	0.22 SE	N/A	208
63	UST	FEDERAL AUTO & WRECKING CO 12382/	750 FEDERAL BLVD DENVER CO 80204	0.22 NW	+ 25	209
63	LUST	FEDERAL AUTO & WRECKING CO 2446/CLOSED	750 FEDERAL BLVD DENVER CO 80204	0.22 NW	+ 25	210
63	LUST	FEDERAL AUTO & WRECKING CO 2450/CLOSED	750 FEDERAL BLVD DENVER CO 80204	0.22 NW	+ 25	211
64	FINDS	DECATUR CO0000310185/	400 DECATUR ST DENVER CO 80204	0.23 SW	+ 41	212
64	FINDS	DECATUR 110011677293/FRS	400 DECATUR ST DENVER CO 80204	0.23 SW	+ 41	213
65	FINDS	PARAGON REPRODUCTIONS INC 110038622005/FRS	2500 WEST 4TH AVE DENVER CO 80219	0.23 SE	N/A	214
66	UST	NEWSTROM-DAVIS CONSTRUCTION CO 10840/	2000 W 8TH AVE DENVER CO 80204	0.23 NE	- 7	215
66	LUST	NEWSTROM-DAVIS CONSTRUCTION CO 5137/CLOSED	2000 W 8TH AVE DENVER CO 80204	0.23 NE	- 7	216

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67	UST	DENVER PUBLIC SCHOOL 14101/	2880 W 8TH AVE DENVER CO 80204	0.24 NW	+ 24	217
67	LUST	DENVER PUBLIC SCHOOL 8548/CLOSED	2880 W 8TH AVE DENVER CO 80204	0.24 NW	+ 24	218
67	LUST	DENVER PUBLIC SCHOOL / TRANSPORTAT 4422/OPEN	2880 W 8TH AVE DENVER CO 80204	0.24 NW	+ 24	219
68	RCRAGN	AB DICK COMPANY COR000204313/VGN	2500 W 8TH AVE DENVER CO 80204	0.25 NE	- 8	220
68	RCRAGN	MILWAUKEE ELECTRIC TOOL CORP COR000210161/VGN	2500 W 8TH AVE DENVER CO 80204	0.25 NE	- 8	222
68	RCRANLR	AB DICK COMPANY COR000204313/NLR	2500 W 8TH AVE DENVER CO 80204	0.25 NE	- 8	224
68	FINDS	AB DICK COMPANY 110022513537/FRS	2500 W 8TH AVE DENVER CO 80204	0.25 NE	- 8	225
68	FINDS	MILWAUKEE ELECTRIC TOOL CORP 110020745096/FRS	2500 W 8TH AVE DENVER CO 80204	0.25 NE	- 8	226
69	RCRANLR	FLINT INK CORP COD007068430/NLR	2600 W 8TH AVE DENVER CO 80204	0.25 NE	- 5	227
69	FINDS	FLINT INK CORP COD007068430/	2600 W 8TH AVE DENVER CO 80204	0.25 NE	- 5	229
69	FINDS	FLINT INK CORP 110001435448/FRS	2600 W 8TH AVE DENVER CO 80204	0.25 NE	- 5	230
69	UST	FLINT INK CORP 10316/	2600 W 8TH AVE DENVER CO 80204	0.25 NE	- 5	231
70	FINDS	CALIFORNIA EXPANDED METALS CO 110022448270/FRS	490 OSAGE ST DENVER CO 80204	0.25 SE	+ 11	232
70	TRIS	CALIFORNIA EXPANDED METALS CO 80204CLFRN49SAG/	490 OSAGE ST DENVER CO 80204	0.25 SE	+ 11	233
70	UST	CHAMPION FENCE CO 12817/	490 OSAGE ST DENVER CO 80204	0.25 SE	+ 11	234
70	UST	SOUTHWEST PROPERTIES 6064/	490 OSAGE ST DENVER CO 80216	0.25 SE	+ 11	235
70	LUST	CHAMPION FENCE CO 1739/CLOSED	490 OSAGE ST DENVER CO 80204	0.25 SE	+ 11	236
71	UST	L E RENNER SPORTS SURFACES 1553/	775 CANOSA CT DENVER CO 80204	0.25 NW	- 2	237
71	LUST	L E RENNER SPORTS SURFACES 10965/CLOSED	775 CANOSA CT DENVER CO 80204	0.25 NW	- 2	238
72	UST	HEB S SERVICE 8102/	2214 W 8TH AVE DENVER CO 80204	0.25 NE	- 5	239

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72	LUST	HEB S SERVICE 2403/CLOSED	2214 W 8TH AVE DENVER CO 80204	0.25 NE	- 5	240
73	LUST	8TH & FEDERAL LTT-90/UNKNOWN	8TH & FEDERAL DENVER CO	0.26 NW	+ 27	241
74	LUST	RTD 1058/CLOSED	655 MARIPOSA ST DENVER CO 80204	0.27 NE	+ 14	242
75	NPL	DENVER RADIUM SITE 94 COD980716955L/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.28 SE	N/A	243
76	VCP	BRYANT STREET QUAD 1000-76/	2390 W 4TH AVE DENVER CO 80223	0.28 SE	- 4	246
77	LUST	GAS-A-CAR #54 2457/CLOSED	301 KNOX CT DENVER CO 80219	0.28 SW	+ 81	247
78	LUST	MURRAY DISTRIBUTING CO INC 540/CLOSED	1505 W 3RD AVE DENVER CO 80223	0.29 SE	+ 10	248
79	LUST	CHEVRON USA INC 1434/CLOSED	2403 W 8TH AVE DENVER CO 80204	0.29 NE	- 22	249
80	LUST	WYLACO SUPPLY CO 1375/CLOSED	295 VALLEJO DENVER CO 80223	0.29 SE	- 8	250
81	LUST	BP INVESTMENT 3071/CLOSED	330 QUIVAS ST DENVER CO 80223	0.30 SE	+ 7	251
82	NPL	DENVER RADIUM SITE 95 COD980716955M/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.33 SE	N/A	252
82	SWL	KNOWN LANDFILL 132/HISTORIC	S BOUNDARIES APPROXIMATE: DENVER CO	0.31 SE	N/A	255
83	CERCLIS	DENVER RADIUM SITE 94 COD980716955L/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.33 SE	+ 15	256
84	LUST	BOYD DISTRIBUTING CO 140/CLOSED	350 OSAGE ST DENVER CO 80223	0.33 SE	+ 12	259
85	SWL	KNOWN LANDFILL 135/HISTORIC	APPROXIMATE: N: W. 3RD AVE DENVER CO	0.33 SE	N/A	260
86	LUST	HIGHLAND SALES CO INC 3225/CLOSED	236 WYANDOT DENVER CO 80223	0.33 SE	- 6	261
87	LUST	WASTEWATER MANAGEMENT FACILITY 3635/CLOSED	2000 W 3RD AVE DENVER CO 80223	0.35 SE	- 2	262
88	LUST	BOYD DISTRIBUTING 6994/CLOSED	340 NAVAJO ST DENVER CO 80202	0.35 SE	+ 14	263
89	CERCLIS	DENVER RADIUM SITE 95 COD980716955M/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.36 SE	+ 17	264
90	LUST	CGF SIGN INC DBA GORDON SIGN CO 2994/CLOSED	2930 W 9TH AVE DENVER CO 80204	0.36 NW	+ 14	267

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91	SWL	KNOWN LANDFILL 136/HISTORIC	W BOUNDARIES APPROXIMATE: DENVER CO	0.36 SE	N/A	268
92	SWL	STAFAB 016-REC-001/	860 NAVAJO DENVER CO 80204	0.36 NE	+ 20	269
93	LUST	REID PROPERTY 4725/CLOSED	600 PERRY ST DENVER CO 80204	0.36 NW	+ 125	270
94	LUST	STOUT STREET FOUNDATION 3161/CLOSED	875 NAVAJO ST DENVER CO 80204	0.37 NE	+ 19	271
95	LUST	JEBCO HEATING & AIR CONDITIONING 8929/CLOSED	666 LIPAN ST DENVER CO 80209	0.37 NE	+ 18	272
96	LUST	MASTERS STUDIO 4740/CLOSED	1140 W 5TH AVE DENVER CO 80204	0.37 SE	+ 18	273
97	LUST	DENVER #2 9183/CLOSED	899 DECATUR ST DENVER CO 80204	0.38 NW	- 2	274
98	LUST	BOYS & GIRLS CLUB OF DENVER 1515/CLOSED	901 TEJON ST DENVER CO 80204	0.38 NE	- 9	275
99	LUST	BELCON MECHNICAL 3218/CLOSED	630 LIPAN DENVER CO 80204	0.38 NE	+ 18	276
100	NPL	DENVER RADIUM SITE COD980716955/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.39 NE	N/A	277
101	LUST	SLATTERY & CO 6078/CLOSED	181 VALLEJO ST DENVER CO 80223	0.39 SE	- 5	280
102	LUST	ALBERT WEDELL 555/CLOSED	168 FEDERAL BLVD DENVER CO 80219	0.39 SW	+ 47	281
103	LUST	NUCRISP 4172/CLOSED	601 PERRY ST DENVER CO 80204	0.39 NW	+ 131	282
104	LUST	CRAIG & ASSOC 4355/CLOSED	745 LIPAN ST DENVER CO 80204	0.39 NE	+ 25	283
105	LUST	NEUSTETER PROPERTY 1825/CLOSED	2450 W 2ND AVE DENVER CO 80223	0.40 SE	- 4	284
106	LUST	ALVIN KRUTSCH PROPERTY 2084/CLOSED	146 YUMA ST DENVER CO 80223	0.41 SE	- 4	285
107	VCP	10TH AND OSAGE PROPERTIES 080509-2/	944 OSAGE ST DENVER CO 80204	0.43 NE	+ 18	286
108	RCRATSD	KATZSON BROTHERS INC COD031992225/TSD	960 VALLEJO ST DENVER CO 80204	0.44 NE	- 10	287
108	RCRACOR	KATZSON BROTHERS INC COD031992225/CA	960 VALLEJO ST DENVER CO 80204	0.44 NE	- 10	288
108	LUST	KATZSON BROTHERS INC 2378/CLOSED	960 VALLEJO ST DENVER CO 80204	0.44 NE	- 10	290

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109	LUST	KALAMATH ASSOCIATES PROPERTY 623/CLOSED	570 KALAMATH ST DENVER CO 80204	0.44 SE	+ 27	291
110	SWL	KNOWN LANDFILL 116/HISTORIC	N BOUNDARIES APPROXIMATE: DENVER CO	0.45 NW	N/A	292
111	LUST	KING SOOPERS GARAGE / FLEET MAINTE 8703/CLOSED	95 TEJON ST DENVER CO 80223	0.45 SE	- 2	293
112	NPL	DENVER RADIUM SITE-OU 9A COD980716955H/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.46 NE	N/A	294
112	SWL	KNOWN LANDFILL 122/HISTORIC	BOUNDARIES APPROXIMATE: BE DENVER CO	0.46 NW	N/A	297
113	LUST	LOOMIS 10678/CLOSED	974 YUMA ST DENVER CO 80204	0.46 NE	- 12	298
114	LUST	ADCO GENERAL CORPORATION PROPERTY 7236/CLOSED	1021 W 8TH AVE DENVER CO 80218	0.46 NE	+ 30	299
115	RCRATSD	G&K SERVICE INCORPORATED COD983789447/TSD	999 VALLEJO ST DENVER CO 80204	0.47 NE	- 12	300
115	RCRACOR	G&K SERVICE INCORPORATED COD983789447/CA	999 VALLEJO ST DENVER CO 80204	0.47 NE	- 12	301
116	LUST	MIRAMAR PARTNERSHIP 5072/CLOSED	2490 W 2ND AVE DENVER CO 80223	0.48 SE	+ 15	303
117	LUST	MCCAFFREY FACILITY 9308/CLOSED	110 YUMA ST DENVER CO 80223	0.48 SE	- 2	304
118	LUST	DICK LESNICK 1616/CLOSED	866 LIPAN DENVER CO 80204	0.48 NE	+ 29	305
119	LUST	SIXTH & SANTA FE CAR WASH 6587/CLOSED	603 SANTA FE DR DENVER CO 80204	0.49 NE	+ 31	306
120	LUST	WASTE WATER MGMT 4990/CLOSED	3RD AVE & S PLATTE RIVER D DENVER CO 80223	0.49 SE	+ 18	307
121	LUST	7-ELEVEN #1825-23603 564/CLOSED	105 KNOX CT DENVER CO 80219	0.50 SW	+ 68	308
121	LUST	7-ELEVEN #23603 8108/	105 KNOX CT DENVER CO 80219	0.50 SW	+ 68	309
121	LUST	7-ELEVEN #23603 10870/OPEN	105 KNOX CT DENVER CO 80219	0.50 SW	+ 68	310
122	LUST	CONOCO SS 5808/CLOSED	571 SANTA FE DR DENVER CO 80204	0.50 SE	+ 31	311
123	RCRACOR	ALERT POLISHING AND PLATING COR000016204/CA	345 SANTA FE DR DENVER CO 80223	0.58 SE	+ 31	312
124	NPL	DENVER RADIUM SITE 97 COD980716955N/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.61 SE	N/A	314

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124	NPL	DENVER RADIUM SITE-OU 10 COD980716955I/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.64 NE	N/A	317
124	NPL	DENVER RADIUM SITE-OU 7B COD980716955E/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.72 NE	N/A	320
124	NPL	DENVER RADIUM SITE-OU 7C COD980716955F/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	0.65 NE	N/A	323
125	RCRACOR	SAFETY-KLEEN SYSTEMS INC COD980954101/CA	1345 W BAYAUD AVE DENVER CO 80223	0.75 SE	- 2	326
126	RCRACOR	MALLOW PLATING WORKS INC COD007076813/CA	118 S PECOS ST DENVER CO 80223	0.79 SE	0	329
127	RCRACOR	PSCO - BARTERS LOT C COD982584526/CA	701 W BAYAUD AVE DENVER CO 80223	0.90 SE	+ 27	332

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	ERNS	13TH AVENUE NEAR OSAGE STREET NRC-980176/RAILROAD NON-RELEASE	13 TH NEAR OSAGE ST DENVER CO	NON GC	N/A	N/A
	ERNS	1701 WEST 6TH AVE NRC-1001471/FIXED	1701 WEST 6TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	26900 EAST 75TH AVE. NRC-973327/MOBILE	26900 EAST 75TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	465 WEST 56TH AVENUE NRC-974257/FIXED	465 WEST 56TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	48TH AND KALAMATH NRC-986885/MOBILE	48TH AVE & KALAMATH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	56TH AVENUE VASQUEZ BLVD NRC-925954/PIPELINE	56TH BLVD VASQUEZ DENVER CO	NON GC	N/A	N/A
	ERNS	6885 EAST 48TH AVENUE NRC-881158/FIXED	6885 E 48TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	7TH AND SHERIDAN NRC-955227/FIXED	7TH & SHERIDAN DENVER CO	NON GC	N/A	N/A
	ERNS	901 W. 48TH STREET NRC-904115/FIXED	901 W 48TH ST DENVER CO	NON GC	N/A	N/A
	ERNS	BETWEEN 75TH AVE AND PENA BLVD AND NRC-988360/FIXED	75TH AVE & PENA BLVD DENVER CO	NON GC	N/A	N/A
	ERNS	BTWN PERRY & QUITMAN STS 343259-CO/	S SIDE OF 37TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	CONSOLIDATED FREIGHT WAYS 628769/HIGHWAY RELATED	I 25 MILE MARKER 231 DENVER CO	NON GC	N/A	N/A
	ERNS	CONTINENTAL ENTERPRISE DENVER 540747/MARINE VESSEL (EPA REGIONS)	N FRONTAGE AT 48TH DR DENVER CO	NON GC	N/A	N/A
	ERNS	GENERAL SERVICES ADMIN. 628735/FIXED FACILITY	BUILDING 53 DENVER FEDERAL DENVER CO	NON GC	N/A	N/A
	ERNS	GRAND AIR 538369/FIXED FACILITY	BOMBADIER GENERAL AVIATION DENVER CO	NON GC	N/A	N/A
	ERNS	HIGHWAY 285 MILE MARKER 240 NRC-993615/MOBILE	US HWY 285 MM 240 DENVER CO	NON GC	N/A	N/A
	ERNS	INCIDENT 87-2195-CO/	65TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	INCIDENT #108564 108564-CO/	88TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	INCIDENT #269779 269779-CO/	W 46TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	INCIDENT #402511 402511-CO/	36TH STREET UP YARD DENVER CO	NON GC	N/A	N/A

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	ERNS	INCIDENT #415037 415037-CO/	36TH STREET YARD DENVER CO	NON GC	N/A	N/A
	ERNS	INCIDENT #467028 467028-CO/	1570 W 58TH AVE DENVER CO	NON GC	N/A	N/A
	ERNS	INCIDENT #479080 479080-CO/	I 25 MILE MARKER 231 DENVER CO	NON GC	N/A	N/A
	ERNS	METRO WASTEWATER REC DISTRICT 597105/PIPELINE RELATED	IRVING AND SANDERSON GULCH DENVER CO	NON GC	N/A	N/A
	ERNS	N/A NRC-526763/RAILROAD NON-RELEASE	36TH ST DENVER CO	NON GC	N/A	N/A
	ERNS	RAIL YARD 901 WEST 48TH ST NRC-977296/RAILROAD	WEST RAIL YARD 901 48TH DENVER CO	NON GC	N/A	N/A
	ERNS	REPUBLIC PARKING 511156/HIGHWAY RELATED	S EMPLOYEE PARKING LOT DENVER CO	NON GC	N/A	N/A
	ERNS	UNION PACIFIC RAILROAD NRC-737791/RAILROAD	36TH ST RAIL YARD DENVER CO	NON GC	N/A	N/A
	ERNS	UNION PACIFIC YARD TRACK 179806-CO/	NO. 6 NERA 36TH DENVER CO	NON GC	N/A	N/A
	NPDES	WEIR GULCH AT HOOKER COG073602/MINOR	3 AVE & HOOKER DENVER CO 80219	NON GC	N/A	N/A
	NPDES	COG070317/	LOWELL BLVD & MANSFIELD AV DENVER CO 00000	NON GC	N/A	N/A
	NPDES	COG072896/	E. OF RIVERDALE RD & THORN THORNTON CO 00000	NON GC	N/A	N/A
	FINDS	14TH AND ALBION ST. NJH-E 110020882641/FRS	14TH AND ALBION NJH-E ST DENVER CO 80220	NON GC	N/A	N/A
	FINDS	FERRIL LAKE STORAGE FACILITY 110027363500/FRS	E 18TH AVE DENVER CO	NON GC	N/A	N/A
	FINDS	SH NO 88 - STU C0881-024 110043500137/FRS	WEST FEDERAL & BLVD DENVER CO 80219	NON GC	N/A	N/A
	FINDS	WEIR GULCH AT HOOKER 110043272106/FRS	3 & HOOKER AVE DENVER CO 80219	NON GC	N/A	N/A
	SPILLS	B & M METAL PRODUCTS CO93-296/	ALLEY BTWN KALAMATH&JASON& DENVER CO	NON GC	N/A	N/A
	SPILLS	CENTRAL PARKING GARAGE 2008-0510/	17TH & GLENARM DENVER CO	NON GC	N/A	N/A
	SPILLS	DENVER DEPT OF ENVIRONMENTAL HEALT 2011-0293/	ON WYNKOOP ST, BETWEEN 16T DENVER CO	NON GC	N/A	N/A
	SPILLS	DENVER WATER? 2011-0604/	5TH ST & RAMPART WAY DENVER CO	NON GC	N/A	N/A

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	SPILLS	DJ S SNOW PLOWING & MAINTENANCE 2012-0048/	3401 WEST KNOX CT AND GIRA DENVER CO	NON GC	N/A	N/A
	SPILLS	EDIFICE CONSTRUCTION MANAGEMENT 2011-0501/	E 8TH AVE & N UINTA WAY & DENVER CO	NON GC	N/A	N/A
	SPILLS	EQUIPMENT SAVERS MOBIL 2011-0586/	48TH AVE & KALAMATH ST DENVER CO	NON GC	N/A	N/A
	SPILLS	GENERAL SERVICES ADMINISTRTN CO99-124/	BUILDING 53, DENVER FEDERA DENVER CO	NON GC	N/A	N/A
	SPILLS	GOMCOM TRUCKING 2011-0518/	I 25 & BROADWAY ABOUT WHER DENVER CO	NON GC	N/A	N/A
	SPILLS	HERTZ RENTAL CAR CO97-291/	HERTZ RENTAL CAR FACILITY DENVER CO	NON GC	N/A	N/A
	SPILLS	INDIGO WATER GROUP 2011-0816/	I 25 & ALAMEDA AVE DENVER CO	NON GC	N/A	N/A
	SPILLS	J.R. SIMPLOT 2002-1130/	UPRR-36TH RAILROAD YARD ST DENVER CO	NON GC	N/A	N/A
	SPILLS	JIFFY LUBE OR QUICK LUBE 2010-0272/	8TH & SANTE FE DENVER CO	NON GC	N/A	N/A
	SPILLS	METRO WASTE WATER DISTRICT CO98-241/	IRVING AND SANDERSON GULCH DENVER CO	NON GC	N/A	N/A
	SPILLS	METRO WASTEWATER RECLAMATION DISTR 2010-0527/	7TH & SHERIDAN DENVER CO	NON GC	N/A	N/A
	SPILLS	PARAMOUNT CONSTRUCTION 2011-0275/	8TH AVE & WOLFF ST. DENVER CO	NON GC	N/A	N/A
	SPILLS	REYNOLDS, INC 2011-0519/	47TH AVE & HAVANA ST DENVER CO	NON GC	N/A	N/A
	SPILLS	UNION PACIFIC RAIL ROAD 2005-564/	38TH STREET, MOFFET TUNNEL DENVER CO	NON GC	N/A	N/A
	SPILLS	UNION PACIFIC RAILROAD 2001-460/	36TH ST. UNION PACIFIC RAI DENVER CO	NON GC	N/A	N/A
	SPILLS	UNION PACIFIC RAIROAD 2002-1070/	UPRR-36TH RAILYARD ST DENVER CO	NON GC	N/A	N/A
	SPILLS	UNKNOWN 2000-178/	W 62ND & 63RD; BETWEEN FED DENVER CO	NON GC	N/A	N/A
	SPILLS	UNKNOWN 2008-0664/	TOWER - BETWEEN 56TH AND A DENVER CO	NON GC	N/A	N/A
	SPILLS	UNKNOWN CO98-290/	BETWEEN 6TH AND 7TH DOWN A DENVER CO	NON GC	N/A	N/A
	SPILLS	UNKNOWN CO93-406/	26TH & MONAHAN & 58TH & MO DENVER CO	NON GC	N/A	N/A

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	SPILLS	UPRR 2011-0200/	901 W 48TH ST DENVER CO 80221	NON GC	N/A	N/A
	SPILLS	UPRR 2012-0038/	901 WEST 48TH ST, DENVER R DENVER CO	NON GC	N/A	N/A
	SPILLS	WARNER ENTERPRISES CO91-006/	FRANKLIN & 26TH ST DENVER CO	NON GC	N/A	N/A
	SWL	ALLIED CHEMICALS DENVER, CO 12-0383/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	ASARCO 12-0385/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	COLORADO DEPT OF HEALTH 12-039/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	DENVER METHANE 12-0384/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	DENVER R 12-0386/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	DENVER RA 12-0387/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	DENVER RADIUM SITES 12-0388/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	E. COLO AVE & S. SYRACUSE ST. 12-0374/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	INSPIRATION POINT AREA 10-28/HISTORIC	N IMMEDIATELY OF THE INTER DENVER CO	NON GC	N/A	N/A
	SWL	INSPIRATION POINT AREA 10-31/HISTORIC	W ROUGHLY BORDERED BY FENT DENVER CO	NON GC	N/A	N/A
	SWL	NO NAME REPORTED 10-25/HISTORIC	W BORDERED BY W. 9TH AVE., DENVER CO	NON GC	N/A	N/A
	SWL	OLD DENVER CITY SWDS 12-0391/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	SWL	RIVERSIDE B. CHURCH AREA 10-27/HISTORIC	W FILLS EXIST FOR APPROXIM DENVER CO	NON GC	N/A	N/A
	SWL	RIVERSIDE BAPTIST CHURCH PROPERTY, 9-09/HISTORIC	THE RIVERSIDE BAPTIST CHUR DENVER CO	NON GC	N/A	N/A
	SWL	RIVERSIDE SITE B 9-06/HISTORIC	OF THE RIVERSIDE BAPTIST C DENVER CO	NON GC	N/A	N/A
	SWL	RIVERSIDE SITE C 9-08/HISTORIC	S SOUTHEAST OF SITE B IN T DENVER CO	NON GC	N/A	N/A
	SWL	RIVERSIDE SITE D 9-07/HISTORIC	SOUTHEAST OF RIVERSIDE C, DENVER CO	NON GC	N/A	N/A

**Target Property:** 6TH AVE DENVER, CO 80219

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	SWL	SHELL CHEMICAL COMPANY 12-0375/HISTORIC	UNKNOWN DENVER CO	NON GC	N/A	N/A
	OTHER	NCLRCO-701/NCLR	1000 N FEDERAL BLVD DENVER CO	NON GC	N/A	N/A
	OTHER	NCLRCO-821/NCLR	732 N KNOX CT DENVER CO	NON GC	N/A	N/A
	LUST	ABANDONED TEXACO LTT-91/UNKNOWN	UNKNOWN DENVER CO	NON GC	N/A	N/A
	LUST	EAST COLFAX AUTO PARTS LTT-99/UNKNOWN	UNKNOWN DENVER CO	NON GC	N/A	N/A
	LUST	EASTSIDE PLANT LTT-100/UNKNOWN	UNKNOWN DENVER CO	NON GC	N/A	N/A
	LUST	HARRISON STREET LTT-106/UNKNOWN	HARRISON ST DENVER CO	NON GC	N/A	N/A
	LUST	SOUTH IRVING ST LTT-109/UNKNOWN	S IRVING ST DENVER CO	NON GC	N/A	N/A
	LUST	TRYND LTT-110/UNKNOWN	TRYND DENVER CO	NON GC	N/A	N/A
	HMIRS	BURLINGTON NORTHERN RR CO 1993120919/RAILWAY	8TH AVE DENVER CO	NON GC	N/A	N/A
	HMIRS	EQUIPMENT SAVERS INC I-2011090521/HIGHWAY	48TH AVE & KALAMETH ST DENVER CO	NON GC	N/A	N/A
	HMIRS	ESTES WEST E-2012020353/HIGHWAY	5375 EAST 56TH AVE DENVER CO	NON GC	N/A	N/A
	HMIRS	FEDEX GROUND PACKAGE SYSTEM INC. X-2012030161/HIGHWAY	1105 WEST 48TH AVE DENVER CO	NON GC	N/A	N/A
	HMIRS	GREENWOOD MOTOR LINES INC. E-2012020251/HIGHWAY	6050 EAST 56TH AVE DENVER CO	NON GC	N/A	N/A
	HMIRS	ROADWAY EXPRESS INC 1993110747/HIGHWAY (FOR HIRE)	11100 E 145TH DENVER CO	NON GC	N/A	N/A
	HMIRS	SOLAR TRANSPORT COMPANY I-2011040442/HIGHWAY	26900 EAST 75TH AVE DENVER CO	NON GC	N/A	N/A
	TRIBALLA	BUREAU OF INDIAN AFFAIRS CONTACT I BIA-80219/	UNKNOWN CO 80219	NON GC	N/A	N/A
	VCP	1468 DELGANY STREET 120112-1/	1490 DELGANY & 1425 WEWATTA DENVER CO	NON GC	N/A	N/A
	VCP	FILING 32 PARCEL 2A II 111216-1/	MARTIN LUTHER KING JR BLVD DENVER CO	NON GC	N/A	N/A
	VCP	FILING 7 EMBANKMENT 100814-1/	STAPLETON FILING DENVER CO	NON GC	N/A	N/A

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

TOTAL: GEOCODED: NON GEOCODED: SELECTED: 0 372 266 106

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	VCP	INTERSTATE PATTERN 120404-1/	2050 SOUTH PECOS ST., UNIT DENVER CO	NON GC	N/A	N/A
	VCP	STAPLETON FLING #16, III 111107-1/	MARTIN LUTHER KING JR BLVD DENVER CO	NON GC	N/A	N/A
	VCP	XCEL ENERGY HARRISON ST. SUBSTATIO 120302-1/	1310 HARRISON ST DENVER CO	NON GC	N/A	N/A
	AIRS	ALL DEMOLITION EXCAV - PORT CRUSHE 0877703519/AIRS DATABASE	1601 SOUTH FEDERAL BLVD. WHEAT RIDGE CO 80033	NON GC	N/A	N/A
	METHLABS	NCLRCO-821/NCLR	732 N KNOX CT DENVER CO	NON GC	N/A	N/A
	METHLABS	NCLRCO-700/NCLR	300 N KNOX ST DENVER CO	NON GC	N/A	N/A

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SWL** DIST/DIR: **ELEVATION:** MAP ID: **SEARCH ID:** 139 0.02 NW 1 NAME: KNOWN LANDFILL REV: 12/01/08 ADDRESS: W BOUNDARIES APPROXIMATE: W: FEDER ID1: 124 00070-0000668 DENVER CO DENVER STATUS: HISTORIC CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS STATUS : Denver CO Old Fill Sites

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES CONFIDENCE IN THIS INFO: LOW

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS								
SEARCH ID:	85	DIST/DIR:	0.03 NE	ELEVATION:	5210	MAP ID:	2	
NAME: ADDRESS:	ROBINSON DAIRY INC 2401 W 6TH AVE DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	COD983797333			
CONTACT: SOURCE:				PHONE:				

DETAILS NOT AVAILABLE

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** 86 DIST/DIR: 0.03 NE **ELEVATION:** 5210 MAP ID: 2

NAME: ROBINSON DAIRY LLC REV: 10/25/11 ADDRESS: 2401 W 6TH AVE ID1: 110001727445 DENVER CO 80204 80204RBNSN241W6

STATUS: DENVER  $\mathsf{FRS}$ PHONE: CONTACT:

SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:NEIPROGRAM ID:NEICO0311766 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:TRISPROGRAM ID:80204RBNSN241W6 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:AIRS/AFSPROGRAM ID:0803101766 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:EISPROGRAM ID:701011 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RMPPROGRAM ID:100000203353 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**TRIS SEARCH ID:** 125 DIST/DIR: **ELEVATION:** MAP ID: 2 0.03 NE 5210 NAME: ROBINSON DAIRY LLC REV: 1/4/12 ADDRESS: 2401 W 6TH AVE ID1: 80204RBNSN241W6 DENVER CO 80204 ID2: DENVER STATUS: CONTACT: PHONE:

SITE\_INFORMATION

SIC INFORMATION

NA -

SOURCE:

REPORTED INFORMATION

REPORTING YEAR: CONTACT PERSON: CONTACT PHONE:

2005CHARLIE WALLING3038252990

EPA

YEARCHEMICALONE TIME RELEASE QTY(LBS)

2005NITRIC ACID

2006NITRIC ACID

2007NITRIC ACID0

OFF SITE TREATMENT LOCATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 162 DIST/DIR: 0.03 NE **ELEVATION:** 5210 MAP ID: 2 NAME: **ROBINSON DAIRY INC** REV: 04/24/12 ADDRESS: 2401 W 6TH AVE ID1: 11139 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 4549 OWNER NAME: ROBINSON DAIRY INC; OWNER ADDRESS: 646 BRYANT ST BOX 5774 DENVER CO 80217

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 30529 TANK TAG: 11139-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 30530 TANK TAG: 11139-2

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 30531 TANK TAG: 11139-3

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=11139$ 

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST								
SEARCH ID:	227	DIST/DIR:	0.03 NE	ELEVATION:	5210	MAP ID:	2	
NAME:	ROBINSON DA	IRY INC		REV:	04/24/12			
ADDRESS:	2401 W 6TH AV DENVER CO 80			ID1: ID2:	2251			
	DENVER CO 80	J2U4		STATUS:	CLOSED			
CONTACT:				PHONE:				
SOURCE:	COSTIS							

LUST INFORMATION STATUS: Closed LOG DATE: 9/4/1990

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=2251

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**AIRS** 

**SEARCH ID:** 264 DIST/DIR: 0.03 NE **ELEVATION:** 5210 MAP ID: 2

NAME: **ROBINSON DAIRY INC** REV: 1/18/12 ADDRESS: 2401 W 6TH AVE CO0948581 ID1: DENVER CO 80204 01766

**DENVER** STATUS: AIRS DATABASE

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

COMPLIANCE PLANT ID:01766 EPA PLANT ID:110001727445 DUN & BRADSTREET NUMBER: AIR QUALITY REGION:036 PRIMARY SIC NUMBER:2026 DEFAULT COMPLIANCE STATUS:IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS 22//0/5/ WCQ DEFAULT CLASSIFICATION CODE:POTENTIAL UNCONTROLLED EMISSIONS <100 TONS/YEAR GOVERNMENT FACILITY:0

OPERATING STATUS:O
YEAR MEASURED:96
PRINCIPAL PRODUCT:DAIRY PROCESSING/PACKAGIN
LAST UPDATED:5/7/2009
AMBIENT MONITORING:
SOURCE MONITORING EQUIP:
STATE IMPLIMENTED PROG:OZONE
PLANT DESC:DAIRY PROCESSING/PACKAGIN

CMS CATEGORY: HIGH PRIORITY VIOLATER FLAG:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SPILLS** DIST/DIR: **SEARCH ID:** 134 0.03 SE **ELEVATION:** 5207 MAP ID: 3 NAME: UNKNOWN REV: ADDRESS: 1701 W 6TH AVE CO97-471 ID1: DENVER CO STATUS: **DENVER** CONTACT: PHONE: CDPHE SOURCE:

PRP INFORMATION PRP NAME: UNKNOWN PRP CONTACT: PRP ADDRESS:

SPILL INFORMATION EVENT DATE: 10/7/1997 MATERIAL TYPE: OIL

MATERIAL1: OILS, DIESEL QUANTITY1: 0 UNKNOWN WATER QUANTITY1: 0

MATERIAL2: QUANTITY2: 0 WATER QUANTITY2: 0

MATERIAL3: QUANTITY3: 0 WATER QUANTITY3: 0

SOURCE: UNKNOWN SOURCE TYPE: UNKNOWN MEDIUM: LAND AND GROUND WATER WATERWAY: CAUSE: UNKNOWN CAUSE INFO: UNKNOWN

ACTION:

RESPONSE COMMENTS: HE ALSO STATED THAT LAST YEAR THE DENVER WATER BOARD, WHICH IS ALOS NEXT TO UNION PACIFIC RR, HAD THE SAME PROBLEM.

COMMENTS: WHILE DIGGING A TRENCH, GROUNDWATER CAME IN AND DIESEL WAS FLOATING ON TOP. CALLER STATES THAT UNION PACIFIC RR IS NEXT DOOR & HAS HAD SEVERAL SPILLS IN THEPAST.

ADDITIONAL COMMENTS:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

UST

04/24/12

3026

**SEARCH ID:** 183 **DIST/DIR:** 0.03 SE **ELEVATION:** 5207 **MAP ID:** 3

NAME:SEARS ROEBUCK & COREV:ADDRESS:1701 W 6TH AVEID1:

DENVER CO 80204 ID2:
DENVER STATUS:
PHONE:

CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 4762 OWNER NAME: SEARS ROEBUCK & CO; OWNER ADDRESS: SEARS TOWER CHICAGO IL 60684

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 6000 TANK ID: 8317 TANK TAG: 3026-1

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 4000 TANK ID: 8318 TANK TAG: 3026-2

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=3026$ 

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

LUST								
SEARCH ID:	235	DIST/DIR:	0.03 SE	ELEVATION:	5207	MAP ID:	3	
NAME:	7TH & OSAGE			REV:	12/01/08			
ADDRESS:	7TH & OSAGE			ID1:	LTT-88			
	DENVER CO			ID2:				
	DENVER			STATUS:	UNKNOWN			
CONTACT:				PHONE:				
SOURCE:	CDPHE							

LUST TRUST TANK SITES
SOURCE OF DATA: From an old CDPHE list of locations where tank leaks were suspected and LUST Trust funds were used in an effort to identify the source. Often, the source was found nearby and was entered in the LUST database (now COSTIS).
This listing not entered into COSTIS back when CDPHE transferred responsibility for tank leaks to OPS. Few people at OPS know of this old CDPHE list, and any associated files are thought to have been disposed of or misplaced.

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 238 DIST/DIR: 0.03 SE **ELEVATION:** 5207 MAP ID: 3 NAME: SEARS ROEBUCK & CO REV: 04/24/12 ADDRESS: 1701 W 6TH AVE ID1: 8481 DENVER CO 80204 ID2: DENVER STATUS: LUST TRUST CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION STATUS: LUST Trust LOG DATE: 3/20/2001

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=8481

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**SWL** 

**ELEVATION: SEARCH ID:** 137 DIST/DIR: 0.03 SW MAP ID: 4

NAME: KNOWN LANDFILL REV: 12/01/08 ADDRESS: ON ATHLETIC FIELD, SEC 6TH & FEDER ID1: 128

00070-0000672 DENVER CO DENVER STATUS: HISTORIC

PHONE: CONTACT: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: Denver CO Old Fill Sites

SETTLING PRESENT: NO ACCORDING TO DHH DATABASE, NO VISIBLE TRASH, NO SETTLEMENT, NO METHANE FOUND CONFIDENCE IN THIS INFO: LOW

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN:

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**ERNS** 

**SEARCH ID:** 54 DIST/DIR: **ELEVATION:** 5252 MAP ID: 5 0.04 SW

REV: NAME: 12/31/01 CORNER OF 6TH AND FEDERAL ADDRESS: ID1: NRC-582019

DENVER CO 80211

**DENVER** STATUS: **FIXED** PHONE:

CONTACT: SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED:10/5/2001 12:14:16 AMDATE COMPLETE:10/5/2001 12:20:02 AM

CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY: PHONE #1:

PHONE #2: PHONE #3:

RESPONSIBLE COMPANY:DAYS INN MOTEL ORGANIZATION TYPE:PRIVATE ENTERPRISE

ADDRESS: DENVER CO 80211

SOURCE:TELEPHONE

#### INCIDENT INFORMATION

INCIDENT DESCRIPTION: THE MATERIAL IS BEING DUMPED IN THE SEWER THROUGH THE SUMP PUMP IN THE BASEMENT OF THE MOTEL. THIS IS RESTAURANT WASTE FROM THE RESTAURANT IN THE MOTEL.

INCIDENT TYPE:FIXEDINCIDENT CAUSE:DUMPING INCIDENT DATE:10/4/2001INCIDENT DATE DESC:DISCOVERED DISTANCE FROM CITY:DISTANCE UNITS: DIRECTION FROM CITY:LOCATION SECTION: LOCATION TOWNSHIP:LOCATION RANGE:

AIRCRAFT TYPE:UNKNOWNAIRCRAFT MODEL:
AIRCRAFT ID:AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CAPACITY UNITS:AIRCRAFT FUEL ON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:AIRCRAFT FUEL ON BOARD:
AIRCRAFT HANGER:AIRCRAFT RUNWAY NUM:
ROAD MILE MARKER:BUILDING ID:
TYPE OF FIXED OBJECT:UNKNOWNPOWER GEN FACILITY:
GENERATING CAPACITY:TYPE OF FUEL:
NPDES:NPDES COMPLIANCE:
PIPELINE TYPE:DOT REGULATED:
PIPELINE ABOVE GROUND:EXPOSED UNDERWATER:
PIPELINE COVERED:GRADE CROSSING:
LOCATION SUBDIVISION:RAILROAD MILEPOST:
TYPE VEHICLE INVOLVED:CROSSING DEVICE TYPE:
DEVICE OPERATIONAL: AIRCRAFT TYPE:UNKNOWNAIRCRAFT MODEL:

DEVICE OPERATIONAL:

DOT CROSSING NUMBER: BRAKE FAILURE: DOT CROSSING NUMBER: BRAKE FAILURE:
TANK ABOVE GROUND: TRANSPORTABLE CONTAINER:
TANK REGULATED: TANK REGULATED BY:
TANK ID: CAPACITY OF TANK:
CAPACITY OF TANK UNITS: ACTUAL AMOUNT:
ACTUAL AMOUNT UNITS: PLATFORM RIG NAME:

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**ERNS SEARCH ID:** 54 DIST/DIR: 0.04 SW **ELEVATION:** 5252 MAP ID: 5 REV: NAME: 12/31/01 ADDRESS: CORNER OF 6TH AND FEDERAL ID1: NRC-582019 DENVER CO 80211 **DENVER** STATUS: **FIXED** CONTACT: PHONE: SOURCE: NRC

PLATFORM LETTER:LOCATION AREA ID: LOCATION BLOCK ID:

DESCRIPTION OF TANK:

OCSG NUMBER:OCSP NUMBER:
STATE LEASE NUMBER:PIER DOCK NUMBER:
BERTH SLIP NUMBER:CONTIN RELEASE TYPE:
INITIAL CONT RELEASE NUM:CONT RELEASE PERMIT:
ALLISION:TYPE OF STRUCTURE:
STRUCTURE NAME:STRUCT OPERATIONAL:
AIRBAG DEPLOYED:DATE NORMAL SERVICE:
SERVICE DISRUPT TIME:SERVICE DISRUPT UNITS:
TRANSIT BUS FLAG:CR BEGIN DATE:
CR END DATE:CR CHANGE DATE:

FIRE INVOLVED:NOFIRE EXTINGUISHED:UNKNOWN ANY EVACUATIONS:NONUMBER EVACUATED: WHO EVACUATED:RADIUS OF EVACUATION: ANY INJURIES:NONUMBER INJURED: NUMBER HOSPITALIZED:ANY FATALITIES:NO NUMBER FATALITIES:ANY DAMAGES:NO DAMAGE AMOUNT:AIR CORRIDOR CLOSED:NO AIR CORRIDOR DESC:AIR CLOSURE TIME: WATERWAY CLOSED:NOWATERWAY DESC: WATERWAY CLOSURE TIME:ROAD CLOSED:NO ROAD DESC:ROAD CLOSURE TIME: CLOSURE DIRECTION:MAJOR ARTERY:NO

TRACK CLOSED:NOTRACK DESC:
TRACK CLOSURE TIME:MEDIA INTEREST:NONE
MEDIUM DESC:WATERADDTL MEDIUM INFO:SEWER
BODY OF WATER:SEWERTRIBUTARY OF:
NEAREST RIVER MILE MARK:RELEASE SECURED:UNKNOWN
EST DUR OF RELEASE:RELEASE RATE:
TRACK CLOSE DIR:ST AGENCY ON SCENE:
ST AGENCY RPT NUM:OTHER AGENCY NOTIFIED:
WEATHER CONDITIONS:AIR TEMPERATURE:
WIND SPEED:WIND DIRECTION:
WATER SUPPLY CONTAM:NOSHEEN SIZE:
SHEEN COLOR:DIR OF SHEEN TRAVEL:
SHEEN ODOR DESCRIPTION:WAVE CONDITION:
CURRENT SPEED:CURRENT DIRECTION:
WATER TEMPERATURE:

DESC OF REMEDIAL ACTION:NONE

EMPL FATALITY: PASS FATALITY: COMMUNITY IMPACT: NOWIND SPEED UNITS: EMPLOYEE INJURIES: PASSENGER INJURIES:

- Continued on next page -

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**ERNS** DIST/DIR: **SEARCH ID:** 54 0.04 SW **ELEVATION:** 5252 MAP ID: 5 NAME: REV: 12/31/01 ADDRESS: CORNER OF 6TH AND FEDERAL ID1: NRC-582019 DENVER CO 80211 **DENVER** STATUS: FIXED CONTACT: PHONE: SOURCE: NRC

OCCUPANT FATALITY: CURRENT SPEED UNITS: OCCUPANT PATALLITI-CURRENT SFEED UNITS:
ROAD CLOSURE UNITS: TRACK CLOSURE UNITS:
SHEEN SIZE UNITS:STATE AGENCY NOTIFIED:
FED AGENCY NOTIFIED:NEAREST RIVER MILE MARK:
SHEEN SIZE LENGTH:SHEEN SIZE LENGTH UNITS:
SHEEN SIZE WIDTH:SHEEN SIZE WIDTH UNITS:
OFFSHORE:NDURATION UNIT:
BELEAGE BATE UNIT-DELEAGE BATE BATE.

RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO:THE CALLER HAD NO OTHER INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:NCCCASE NUMBER:000000-00-0 UN NUMBER:REACHED WATER:YES

NAME OF MATERIAL:RESTAURANT WASTE AMOUNT OF MATERIAL:0 UNKNOWN AMOUNT AMOUNT IN WATER:0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**SPILLS SEARCH ID:** 131 DIST/DIR: 0.04 SW **ELEVATION:** 5252 MAP ID: 5 NAME: REV: DAYS INN MOTEL ADDRESS: CORNER OF 6TH AND FEDERAL ID1: 2001-424 DENVER CO 80211 STATUS: **DENVER** PHONE: CONTACT: SOURCE: CDPHE

PRP INFORMATION
PRP NAME: DAYS INN MOTEL
PRP CONTACT:
PRP ADDRESS: CORNER OF 6TH AND FEDERAL
DENVER CO 80211-

SPILL INFORMATION EVENT DATE: 10/4/2001 MATERIAL TYPE: UNKNOWN

MATERIAL1: RESTAURANT WASTE QUANTITY1: 0 UNKNOWN WATER QUANTITY1: 0 UNKNOWN

MATERIAL2: QUANTITY2: WATER QUANTITY2:

MATERIAL3: QUANTITY3: WATER QUANTITY3:

SOURCE: FIXED FACILITY SOURCE TYPE: RESTAURANT MEDIUM: WATER WATERWAY: SEWER CAUSE: DUMPING

CAUSE INFO: THE MATERIAL IS BEING DUMPED IN THE SEWER THROUGH THE SUMP PUMP IN THE BASEMENT OF THE MOTEL. THIS IS RESTAURANT WASTE FROM THE RESTAURANT LOC

ACTION: NONE

**RESPONSE COMMENTS:** 

COMMENTS:

ADDITIONAL COMMENTS:

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**FINDS** 

SEARCH ID: 98 DIST/DIR: 0.04 SE ELEVATION: MAP ID: 6

 NAME:
 FROG HOLLOW PARK TRAIL IMPROVEMENTS
 REV:
 10/25/11

 ADDRESS:
 I-25 & 6 AVE
 ID1:
 110043500020

 DENVER CO 80204
 ID2:
 COG073661

 DENVER CO 80204
 ID2:
 COG073661

 DENVER
 STATUS:
 FRS

CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:NPDESPROGRAM ID:COG073661 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION

SIC INFORMATION

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**SWL** 

**ELEVATION:** 7 **SEARCH ID:** 143 DIST/DIR: 0.04 SW MAP ID:

NAME: KNOWN LANDFILL REV: 12/01/08 ADDRESS: APPROX.: BETWEEN KNOX CT. AND JULI ID1: 129

DENVER CO 00070-0000673 DENVER STATUS: HISTORIC

PHONE: CONTACT: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: Denver CO Old Fill Sites

METHANE PRESENT: YES SETTLING PRESENT: NO NO VISIBLE TRASH NO SETTLEMENT, NO METHANE FOUND CONFIDENCE IN THIS INFO: LOW

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**RCRAGN** 

REV:

PHONE:

1/10/12

**SEARCH ID:** 28 DIST/DIR: 0.06 SE **ELEVATION:** 5204 MAP ID: 8

NAME: RYDER TRUCK RENTAL ADDRESS:

550 BRYANT ID1: COD983800780

DENVER CO 80204

**DENVER** STATUS: VGN

CONTACT: SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: MAKI BRIAN

550 BRYANT DENVER CO 80204

PHONE: 3036291105

OWNER NAME:RYDER TRUCK RENTAL OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR\_TYPE:
MAILING ADDRESS: P.O. BOX 46515

DENVER, CO 80201

UNIVERSE INFORMATION:

RECEIVED DATE:04/26/1993

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:N - NO SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----CLOSURE WORKLOAD:--

CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:----PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRAGN** 

REV:

PHONE:

1/10/12

**SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 28 0.06 SE 5204 8

NAME: RYDER TRUCK RENTAL ADDRESS:

550 BRYANT ID1: COD983800780 ID2:

DENVER CO 80204

DENVER STATUS: VGN

CONTACT:

SOURCE: EPA

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D000
D001 - Ignitable waste
D002 - Corrosive waste
D006 - Cadmium
D007 - Chromium
D008 - Lead
D018 - Benzene
D021 - Chlorobenzene
D027 - 1,4-Dichlorobenzene
D039 - Tetrachloroethylene

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

ERNS								
SEARCH ID:	53	DIST/DIR:	0.06 SE	ELEVATION:	5204	MAP ID:	8	
NAME: ADDRESS:	INCIDENT 550 BRYANT ST			REV: ID1:	12/30/08 83-1963-CO			
ADDRESS:	DENVER CO DENVER			IDT: ID2: STATUS:	63-1963-CO			
CONTACT: SOURCE:	NRC			PHONE:				

INCIDENT DESCRIPTION: 3/9/83 - STORAGE TANK UNDERGROUND/ UNK MATERIAL: GASOLINE AMOUNT: 3000 GAL LINK: None Available

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 89 DIST/DIR: **ELEVATION:** MAP ID: 8 0.06 SE 5204 NAME: RYDER TRUCK RENTAL REV: 10/25/11 ADDRESS: 550 BRYANT ID1: 110002991987 DENVER CO 80204 COD983800780 DENVER STATUS: FRS CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD983800780 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION NIAC INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS									
SEARCH ID:	90	DIST/DIR:	0.06 SE	ELEVATION:	5204	MAP ID:	8		
NAME: ADDRESS:	RYDER TRUCK 550 BRYANT ST DENVER CO 80	Г		REV: ID1: ID2:	COD983800780				
CONTACT: SOURCE:	DENVER			STATUS: PHONE:					

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 164 DIST/DIR: 0.06 SE **ELEVATION:** 5204 MAP ID: 8 NAME: RYDER TRUCK RENTAL 0155 REV: 04/24/12 ADDRESS: 550 BRYANT ST ID1: 5605 DENVER CO 80204 **DENVER** STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 21531 OWNER NAME: OWNER ADDRESS: 16155 PARK ROW STE 140 HOUSTON TX 77084

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 8000 TANK ID: 15279 TANK TAG: 5605-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 5000 TANK ID: 15280 TANK TAG: 5605-2

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 3000 TANK ID: 15281 TANK TAG: 5605-3

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 12000 TANK ID: 15282 TANK TAG: 5605-4

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 12000 TANK ID: 15283 TANK TAG: 5605-5

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 560 TANK ID: 15284 TANK TAG: 5605-6

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 560

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 164 DIST/DIR: 0.06 SE **ELEVATION:** 5204 MAP ID: 8 NAME: RYDER TRUCK RENTAL 0155 REV: 04/24/12 ADDRESS: 550 BRYANT ST ID1: 5605 DENVER CO 80204 STATUS: **DENVER** PHONE: CONTACT:

TANK ID: 15285 TANK TAG: 5605-7

SOURCE:

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 560 TANK ID: 15286 TANK TAG: 5605-8

COSTIS

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 12000 TANK ID: 15287 TANK TAG: 5605-9

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 10000 TANK ID: 15288 TANK TAG: 5605-10

TANK TYPE: UST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 4000 TANK ID: 15289 TANK TAG: 5605-11

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 2500 TANK ID: 15290 TANK TAG: 5605-12

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 20000 TANK ID: 15291 TANK TAG: 5605-13

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	229	DIST/DIR:	0.06 SE	ELEVATION:	5204	MAP ID:	8				
NAME:	RYDER TRUCK I	RENTAL		REV:	04/24/12						
ADDRESS:	550 BRYANT ST	-		ID1:	7948						
	DENVER CO 80	204		ID2:							
	DENVER			STATUS:	CLOSED						
CONTACT:				PHONE:							
SOURCE:	COSTIS										

LUST INFORMATION STATUS: Closed LOG DATE: 12/2/1999

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 230 DIST/DIR: 0.06 SE **ELEVATION:** 5204 MAP ID: 8 NAME: RYDER TRUCK RENTAL INC REV: 04/24/12 ADDRESS: 550 BRYANT ST ID1: 1320 DENVER CO 80204 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 11/22/1989

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

PHONE:

**SEARCH ID:** 46 **DIST/DIR:** 0.06 SE **ELEVATION:** 5210 **MAP ID:** 9

 NAME:
 FUJI PHOTO FILM USA INC
 REV:
 1/10/12

 ADDRESS:
 501 RARITAN WAY
 ID1:
 COR000204263

DENVER CO 80204

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: JOSEPHINE CARPENITO 555 TAXTER RD ELMSFORD NY 10523

PHONE: 9147898359

OWNER NAME:FUJI PHOTO FILM USA INC OWNER TYPE:P-PRIVATE OPERATOR:FUJI PHOTO FILM U S A INC OPERATOR TYPE:P-PRIVATE MAILING ADDRESS:555 TAXTER RD ELMSFORD UNIVERSE INFORMATION:

RECEIVED DATE:02/18/2003

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FURL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	RCRANLR										
SEARCH ID:	46	DIST/DIR:	0.06 SE	ELEVATION:	5210	MAP ID:	9				
NAME:	FUJI PHOTO F			REV:	1/10/12						
ADDRESS:	501 RARITAN V DENVER CO 80			ID1: ID2:	COR000204263	3					
CONTACT:	DENVER			STATUS: PHONE:	NLR						
SOURCE:	EPA										

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

FINDS									
SEARCH ID:	102	DIST/DIR:	0.06 SE	ELEVATION:	5210	MAP ID:	9		
NAME: ADDRESS:	FUJI PHOTO FIL 501 RARITAN W DENVER CO 80	/AY		REV: ID1: ID2:	10/25/11 110015847547 COR000204263				
CONTACT: SOURCE:	DENVER CO 80 DENVER	204		STATUS: PHONE:	FRS	5			

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COR000204263 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION
SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 9 173 0.06 SE 5210 NAME: ASSOCIATED STATIONER INC PROPERTY REV: 04/24/12 ADDRESS: 501 RARITAN WAY ID1: 15421 DENVER CO 80204 ID2: DENVER STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 18540 OWNER NAME: OWNER ADDRESS: 501 RARITAN WAY DENVER CO 80204

TANK INFORMATION

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=15421$ 

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 106 0.06 SE 10

DENVER WATER WEST SIDE COMPLEX FIBER OPTIC CABLE I NAME:

ADDRESS: QUIVAS AND 6TH AVE

DENVER CO 80204

CONTACT:

SOURCE:

DENVER

REV: 10/25/11 ID1: 110041250598

ID2: COG073362

STATUS:  $\mathsf{FRS}$ 

PHONE:

FACILITY REGISTRATION INFORMATION:

EPA

PROGRAM:NPDESPROGRAM ID:COG073362 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

**UST** 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

 SEARCH ID:
 148
 DIST/DIR:
 0.06 SW
 ELEVATION:
 5331
 MAP ID:
 11

 NAME:
 CCOD FIRE STATION #20
 REV:
 04/24/12

 ADDRESS:
 510 KNOX CT
 ID1:
 8882

DENVER CO 80204 ID2:
DENVER STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 1000 OWNER NAME: OWNER ADDRESS: 200 W 14TH AVE STE 310 DENVER CO 80202

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 550 TANK ID: 23363 TANK TAG: 8882-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 550 TANK ID: 23364 TANK TAG: 8882-2

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=8882$ 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 149 DIST/DIR: 0.06 SW **ELEVATION:** 5331 MAP ID: 11 NAME: CCOD FIRE STATION #20 REV: ADDRESS: 510 KNOX CT 12053 ID1: DENVER CO 80204 **DENVER** STATUS: UST CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION
OWNER ID NUMBER: 1000
OWNER NAME: CITY AND COUNTY OF DENVER
OWNER ADDRESS: ENVIRONMENTAL SERVICES 1391 SPEER BLVD STE 700
DENVER CO 80204

#### TANK INFORMATION

TANK STATUS: Permanently Out of Use- UNDERGROUND STORAGE TANK TANK INSTALLED DATE:
TANK CAPACITY: 550 GALLONS
TANK CONTENTS: Gasoline
TANK MATERIAL OF CONSTRUCTION: Asphalt Coated or Bare Steel
PIPE MATERIAL OF CONSTRUCTION: Bare Steel

TANK STATUS: Permanently Out of Use- UNDERGROUND STORAGE TANK TANK INSTALLED DATE:
TANK CAPACITY: 550 GALLONS
TANK CONTENTS: Diesel
TANK MATERIAL OF CONSTRUCTION: Asphalt Coated or Bare Steel
PIPE MATERIAL OF CONSTRUCTION: Bare Steel

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 157 0.06 SW 5331 11 NAME: **HWS TECHNOLOGIES** REV: 04/24/12 ADDRESS: 504 KNOX CT ID1: 11997 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 16212 OWNER NAME: HWS TECHNOLOGIES; OWNER ADDRESS: 9101 E KENYON AVE DENVER CO 80237

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=11997

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST** 159 **SEARCH ID:** DIST/DIR: 0.06 SW **ELEVATION:** 5331 MAP ID: 11 NAME: JOHN J HEGARTY REV: 04/24/12 ADDRESS: 504 KNOX CT ID1: 3557 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 2114 OWNER NAME: HEGARTY; JOHN OWNER ADDRESS: 10221 E 120TH HENDERSON CO 80640

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 99999999 TANK ID: 9957 TANK TAG: 3557-1

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 99999999 TANK ID: 9958 TANK TAG: 3557-2

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=3557

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST									
SEARCH ID:	199	DIST/DIR:	0.06 SW	ELEVATION:	5331	MAP ID:	11			
NAME:	CCOD FIRE STA	ATION #20		REV:	04/24/12					
ADDRESS:	510 KNOX CT			ID1:	4945					
	DENVER CO 80	204		ID2:						
	DENVER			STATUS:	CLOSED					
CONTACT:				PHONE:						
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Closed LOG DATE: 9/8/1992

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	215	DIST/DIR:	0.06 SW	ELEVATION:	5331	MAP ID:	11				
NAME: ADDRESS:	HWS TECHNOL 504 KNOX CT			REV: ID1:	04/24/12 3501						
CONTACT: SOURCE:	DENVER CO 80 DENVER COSTIS	)204		ID2: STATUS: PHONE:	CLOSED						

LUST INFORMATION STATUS: Closed LOG DATE: 6/8/1992

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**ERNS** 

**SEARCH ID:** DIST/DIR: 0.07 NE **ELEVATION:** 5208 MAP ID: 12 51

REV: NAME: IN THE BACK OF THE SHOP 12/31/07 ADDRESS: 635 CANOSA CT ID1: NRC-841082

DENVER CO 80204

**DENVER** STATUS: **FIXED** CONTACT: PHONE:

SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED:7/5/2007 4:28:04 PMDATE COMPLETE:7/5/2007 4:42:41 PM CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY: PHONE #1:

PHONE #2: PHONE #3:

RESPONSIBLE COMPANY:COMFORT MECHANICAL WORK // KYLE SYSTEM ORGANIZATION TYPE:PRIVATE ENTERPRISE

ADDRESS: DENVER CO 80204

SOURCE:TELEPHONE

#### INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER IS REPORTING THE DUMPING OF REFRIGERANT GASES INTO THE AIR BY THE OWNER OF A HEATING AND AIR CONDITIONING COMPANY. CALLER STATES THAT HE DID NOT TURN IN FIVE 50 POUND BOTTLES OF REFRIGERANT GASSES TO THE RECYCLING COMPANY. CALLER STATES HE IS DOING

INCIDENT TYPE:FIXEDINCIDENT CAUSE:DUMPING INCIDENT DATE:6/4/2007 8:30:00 AMINCIDENT DATE DESC:DISCOVERED DISTANCE FROM CITY:DISTANCE UNITS: DIRECTION FROM CITY:LOCATION SECTION: LOCATION TOWNSHIP:LOCATION RANGE:

AIRCRAFT TYPE:AIRCRAFT MODEL:
AIRCRAFT ID:AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CAPACITY UNITS:AIRCRAFT FUEL ON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:AIRCRAFT SPOT NUMBER:
AIRCRAFT HANGER:AIRCRAFT RUNWAY NUM: AIRCRAFT I FAINGER.AIRCRAFT I KUNWAT NOW.

ROAD MILE MARKER:BUILDING ID:

TYPE OF FIXED OBJECT:OTHERPOWER GEN FACILITY:NO
GENERATING CAPACITY:TYPE OF FUEL:
NPDES:NPDES COMPLIANCE:UNKNOWN
PIPELINE TYPE:DOT REGULATED:UNKNOWN
PIPELINE ABOVE GROUND:ABOVEEXPOSED UNDERWATER:NO
PIPELINE COVEEDED: UNIX.DOWN. PIPELINE COVERED: UNKNOWNGRADE CROSSING: UNKNOWN LOCATION SUBDIVISION: RAILROAD MILEPOST:

TYPE VEHICLE INVOLVED:CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:YES** 

DOT CROSSING NUMBER:BRAKE FAILURE:UNKNOWN TANK ABOVE GROUND:ABOVETRANSPORTABLE CONTAINER:UNKNOWN TANK REGULATED: UNKNOWNTANK REGULATED BY: TANK ID:CAPACITY OF TANK: CAPACITY OF TANK UNITS:ACTUAL AMOUNT: ACTUAL AMOUNT UNITS:PLATFORM RIG NAME:

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**ERNS SEARCH ID:** DIST/DIR: 0.07 NE **ELEVATION:** 5208 MAP ID: 12 51 REV: NAME: IN THE BACK OF THE SHOP 12/31/07 ADDRESS: 635 CANOSA CT ID1: NRC-841082 DENVER CO 80204 **DENVER** STATUS: **FIXED** CONTACT: PHONE: SOURCE: NRC

PLATFORM LETTER:LOCATION AREA ID: LOCATION BLOCK ID:

DESCRIPTION OF TANK:

OCSG NUMBER: OCSP NUMBER: STATE LEASE NUMBER:PIER DOCK NUMBER: BERTH SLIP NUMBER:CONTIN RELEASE TYPE: INITIAL CONT RELEASE NUM:CONT RELEASE PERMIT: ALLISION:UNKNOWNTYPE OF STRUCTURE: STRUCTURE NAME:STRUCT OPERATIONAL:UNKNOWN AIRBAG DEPLOYED:UNKNOWNDATE NORMAL SERVICE: SERVICE DISRUPT TIME:SERVICE DISRUPT UNITS: TRANSIT BUS FLAG:CR BEGIN DATE: CR END DATE:CR CHANGE DATE:

FIRE INVOLVED:NOFIRE EXTINGUISHED:UNKNOWN ANY EVACUATIONS:NONUMBER EVACUATED: WHO EVACUATED:RADIUS OF EVACUATION: ANY INJURIES:NONUMBER INJURED: NUMBER HOSPITALIZED:ANY FATALITIES:NO NUMBER FATALITIES:ANY DAMAGES:NO DAMAGE AMOUNT:AIR CORRIDOR CLOSED:NO AIR CORRIDOR DESC:AIR CLOSURE TIME: WATERWAY CLOSED:NOWATERWAY DESC: WATERWAY CLOSURE TIME:ROAD CLOSED:NO ROAD DESC:ROAD CLOSURE TIME: CLOSURE DIRECTION:MAJOR ARTERY:NO

TRACK CLOSED:NOTRACK DESC:
TRACK CLOSURE TIME:MEDIAINTEREST:NONE
MEDIUM DESC:AIRADDTL MEDIUM INFO:ATMOSPHERE
BODY OF WATER:TRIBUTARY OF:
NEAREST RIVER MILE MARK:RELEASE SECURED:UNKNOWN
EST DUR OF RELEASE:RELEASE RATE:
TRACK CLOSE DIR:ST AGENCY ON SCENE:NONE
ST AGENCY RPT NUM:NONEOTHER AGENCY NOTIFIED:
WEATHER CONDITIONS:SUNNYAIR TEMPERATURE:98
WIND SPEED:WIND DIRECTION:
WATER SUPPLY CONTAM:UNKNOWNSHEEN SIZE:
SHEEN COLOR:DIR OF SHEEN TRAVEL:
SHEEN ODOR DESCRIPTION:WAVE CONDITION:
CURRENT SPEED:CURRENT DIRECTION:
WATER TEMPERATURE:

DESC OF REMEDIAL ACTION:NONE

EMPL FATALITY: PASS FATALITY: COMMUNITY IMPACT: WIND SPEED UNITS: EMPLOYEE INJURIES: PASSENGER INJURIES:

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**ERNS SEARCH ID:** 51 DIST/DIR: 0.07 NE **ELEVATION:** 5208 MAP ID: 12 NAME: IN THE BACK OF THE SHOP REV: 12/31/07 ADDRESS: 635 CANOSA CT ID1: NRC-841082 DENVER CO 80204 **DENVER** STATUS: FIXED CONTACT: PHONE: SOURCE: NRC

OCCUPANT FATALITY:CURRENT SPEED UNITS:
ROAD CLOSURE UNITS:TRACK CLOSURE UNITS:
SHEEN SIZE UNITS:STATE AGENCY NOTIFIED:NONE
FED AGENCY NOTIFIED:NONENEAREST RIVER MILE MARK:
SHEEN SIZE LENGTH:SHEEN SIZE LENGTH UNITS:
SHEEN SIZE WIDTH:SHEEN SIZE WIDTH UNITS:
OFFSHORE:NDURATION UNIT:
RELEASE RATE UNIT:RELEASE RATE RATE:

ADDITIONAL INFO: CALLER HAS NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:RFGCASE NUMBER:000000-00-0 UN NUMBER:REACHED WATER:NO

NAME OF MATERIAL:REFRIGERANT GASES AMOUNT OF MATERIAL:250 POUND(S) AMOUNT IN WATER:

OTHER MATERIAL INFORMATION MOBILE DETAILS INFORMATION

TRAIN INFORMATION

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**FINDS** 

**SEARCH ID:** 120 **DIST/DIR:** 0.07 SE **ELEVATION:** 5207 **MAP ID:** 13

 NAME:
 SKYLINE BUSINESS FORMS INC
 REV:
 11/1/06

 ADDRESS:
 550 RARITAN WAY
 ID1:
 110001726785

 DENVER CO 80204
 ID2:
 0803101723

CONTACT: PHONE: SOURCE:

FACILITY REGISTRATION INFORMATION:

PROGRAM:FRS
PROGRAM ID:110001726785PROVIDED BY:FEDERAL AGENCY
AGENCY INTERESTED:AGENCY INT QUAL:
INTEREST ENDED:INT END QUAL:
SOURCE OF DATA:FRSLAST REPORTED:
LAST EXTRACTED:ENFORCEMENT ACT:
REG PROGRAM:FACILITY -

PROGRAM:AIRS/AFS
PROGRAM ID:0803101723PROVIDED BY:FEDERAL AGENCY
AGENCY INTERESTED:AGENCY INT QUAL:
INTEREST ENDED:INT END QUAL:
SOURCE OF DATA:AIRS/AFSLAST REPORTED:12/24/2001
LAST EXTRACTED:ENFORCEMENT ACT:

INTEREST ENDED::NT END COAL:
SOURCE OF DATA:AIRS/AFSLAST REPORTED:12/24/2001
LAST EXTRACTED:ENFORCEMENT ACT:
REG PROGRAM:AIR MINOR - A FACILITY IS CLASSIFIED AS A CLEAN AIR ACT STATIONARY SOURCE MINOR DISCHARGER OF AIR POLLUTANTS IF: (A) POTENTIAL UNCONTROLLED EMISSIONS < 100 TONS/YEAR; OR (B) MAJOR SOURCE THRESHOLDS ARE NOT DEFINED, OR CLASSIFICATION IS UNKNOWN.

SITE TYPE:STATIONARY
INTEREST STATUS:ACTIVE
DATA QUALITY:V
LOCATION DESC:
ADDRESS TYPE:REGULAR URBAN
LAST REPORTED:
POSTED TO DATABASE:3/1/2000
DATA UPDATED:2/4/2006 8:46:49 AM
ENTERED PERSON/METHOD:REFRESH
PARENT REG ID:
CONFIDENCE IN ADDR:MEDIUM
ENFORCEMENT SENSITIVE:
REQ MANUAL REVIEW:
REASON MAN REVIEW:
SMALL BUS POLICY:
ENFORCEMENT ACTION:
DATA PUB ACCESS:YES
INTERNAL SYS ID:

FEDERAL FACILITY:NO
FEDERAL AGENCY:
TRIBAL LAND:
TRIBAL LAND NAME:
CONGRESSIONAL DIST:01
LEGISLATIVE DIST:
HYDROLOGICAL UNTIS:10190002
EPA REGION:08
AIRSHED:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	121	DIST/DIR:	0.07 SE	ELEVATION:	5207	MAP ID:	13
NAME: ADDRESS:	SKYLINE BUSIN 550 RARITAN W DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	CO0001986033		
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 146 DIST/DIR: 0.07 NW **ELEVATION:** 5252 MAP ID: 14 NAME: **AUSTRIA MOTORS INC** REV: 04/24/12 ADDRESS: 642 FEDERAL BLVD 14223 ID1: DENVER CO 80204 STATUS: **DENVER** CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 17662 OWNER NAME: SPARER; HELMUT OWNER ADDRESS: 642 FEDERAL BLVD DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 3000 TANK ID: 31744 TANK TAG: 14223-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 3000 TANK ID: 31745 TANK TAG: 14223-2

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 3000 TANK ID: 31746 TANK TAG: 14223-3

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 550 TANK ID: 31747 TANK TAG: 14223-4

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=14223

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	195	DIST/DIR:	0.07 NW	ELEVATION:	5252	MAP ID:	14				
NAME:	AUSTRIA MOTORS			REV:	04/24/12						
ADDRESS:	642 FEDERAL BLVD			ID1:	6193						
	DENVER CO 80204			ID2:							
	DENVER			STATUS:	CLOSED						
CONTACT:				PHONE:							
SOURCE:	COSTIS										

LUST INFORMATION STATUS: Closed LOG DATE: 1/13/1998

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

ADDRESS: 595 QUIVAS ID1: 7836

DENVER CO 80204 ID2:
DENVER STATUS:
PHONE:
COSTIS

OWNER INFORMATION OWNER ID NUMBER: 17701 OWNER NAME: UNKNOWN; OWNER ADDRESS: UNKNOWN ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

CONTACT:

SOURCE:

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 2000 TANK ID: 20587 TANK TAG: 7836-1

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 99999999 TANK ID: 20588 TANK TAG: 7836-2

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=7836$ 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: 0.07 SE **ELEVATION:** 5208 MAP ID: 15 178 NAME: **CONRADS WAREHOUSE** REV: 04/24/12 ADDRESS: 595 QUIVAS ID1: 13770 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 17474 OWNER NAME: CHESLIN; HUGH OWNER ADDRESS: 785 VALLEJO ST DENVER CO 80204

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=13770

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	237	DIST/DIR:	0.07 SE	ELEVATION:	5208	MAP ID:	15				
NAME: ADDRESS:	CONRADS WAI	REHOUSE		REV: ID1:	04/24/12 5751						
	DENVER CO 80 DENVER	0204		ID2: STATUS:	CLOSED						
CONTACT: SOURCE:	COSTIS			PHONE:							

LUST INFORMATION STATUS: Closed LOG DATE: 10/18/1996

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

	FINDS									
SEARCH ID:	119	DIST/DIR:	0.08 SE	ELEVATION:	MAP ID:	16				
NAME: ADDRESS:	550 RARITAN W			REV: ID1:	10/25/11 110038610795					
CONTACT:	DENVER CO 80 DENVER	204		ID2: STATUS: PHONE:	0803101723 FRS					
SOURCE:	EPA									

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803101723 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION
SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRAGN** 

**SEARCH ID:** 23 **DIST/DIR:** 0.09 NW **ELEVATION:** 5253 **MAP ID:** 17

 NAME:
 DENVER PUBLIC SCHOOL SERVICE BUILDING
 REV:
 1/10/12

 ADDRESS:
 2800 W 7TH AVE
 ID1:
 COD980962252

DENVER CO 80204 ID2:

DENVER STATUS: SGN

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: JONI RIX E 33RD AVE

DENVER CO 80205

PHONE: 7204245454

OWNER NAME:DENVER PUBLIC SCHOOLS OWNER TYPE:D-DISTRICT OPERATOR:DENVER PUBLIC SCHOOLS SERVICE BUILDING OPERATOR:TYPE:D-DISTRICT MAILING ADDRESS:1350 E 33RD AVE UNIVERSE INFORMATION:

RECEIVED DATE:10/15/2009

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS
CORRECTIVE ACTION WORKLOAD:N - NO

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:D-DISTRICTSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FURL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

61111 - ELEMENTARY AND SECONDARY SCHOOLS 61171 - EDUCATIONAL SUPPORT SERVICES

- Continued on next page -

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**RCRAGN** 

REV:

1/10/12

**SEARCH ID:** 23 DIST/DIR: 0.09 NW **ELEVATION:** 5253 MAP ID: 17

NAME: DENVER PUBLIC SCHOOL SERVICE BUILDING

ADDRESS: 2800 W 7TH AVE ID1: COD980962252

DENVER CO 80204

**DENVER** STATUS: SGN

CONTACT: PHONE:

SOURCE: EPA

#### **ENFORCEMENT INFORMATION:**

#### VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 11/25/2011 DETERMINED BY: S - STATE CITATION: RESOLVED: 11/25/2011 TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 11/25/2011DETERMINED BY: S - STATE CITATION: RESOLVED: 11/25/2011
TYPE: USED OIL - GENERATORS

VIOLATION NUMBER: 3RESPONSIBLE: S - STATE DETERMINED: 11/25/2011DETERMINED BY: S - STATE CITATION: RESOLVED: 11/25/2011 TYPE: UNIVERSAL WASTE - GENERAL

#### HAZARDOUS WASTE INFORMATION:

#### D000

D000 - Ignitable waste D002 - Corrosive waste D003 - Reactive waste D003 - Reactive waste D003 - Reactive waste D005 - Barium D007 - Chromium D008 - Lead D039 - Tetrachloroethylene F001 - The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

solvent mixtures.
P075 - Nicotine, & salts (OR) Pyridine, 3-(1-methyl-2-pyrrolidinyl)-,(S)-, & salts U006 - Acetyl chloride (C,R,T)

U056 - Acetyl Criloride (L, K, I) U056 - Benzene, hexahydro- (I) (OR) Cyclohexane (I) U122 - Formaldehyde U165 - Naphthalene U188 - Phenol

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	FINDS									
SEARCH ID:	64	DIST/DIR:	0.09 NW	ELEVATION:	5253	MAP ID:	17			
NAME: ADDRESS:	DENVER PUBL 2800 W 7TH A' DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	COD98096225	52				
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** 65 **DIST/DIR:** 0.09 NW **ELEVATION:** 5253 **MAP ID:** 17

NAME:DENVER PUBLIC SCHOOL SERVICE BUILDINGREV:10/25/11ADDRESS:2800 W 7TH AVEID1:110009560233

DENVER CO 80204 ID2: COD980962252

DENVER STATUS: FRS

CONTACT: PHONE:

FACILITY REGISTRATION INFORMATION:

PROGRAM:EISPROGRAM ID:1552811 FEDERAL FACILITY: TRIBAL LAND:

EPA

SOURCE:

PROGRAM:NEIPROGRAM ID:NEICO1645 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RCRAINFOPROGRAM ID:COD980962252 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:AIRS/AFSPROGRAM ID:0803101645 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ECOMAPPROGRAM ID:COM000000717 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 154 DIST/DIR: 0.09 NW **ELEVATION:** 5253 MAP ID: 17 DPS HILL TOP FUEL FAC REV: NAME: 04/24/12 ADDRESS: 2800 W 7TH AVE ID1: 7513 DENVER CO 80204 **DENVER** STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 1770 OWNER NAME: OWNER ADDRESS: 2800 W 7TH AVE DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 20000 TANK ID: 19775 TANK TAG: 7513-1

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 10000 TANK ID: 19776 TANK TAG: 7513-2

TANK TYPE: UST TANK CONTENTS: 1 - Unleaded Regular (RUL) TANK CAPACITY: 10000 TANK ID: 19777 TANK TAG: 7513-3

TANK TYPE: UST TANK CONTENTS: 1 - Unleaded Regular (RUL) TANK CAPACITY: 10000 TANK ID: 19778 TANK TAG: 7513-4

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 250 TANK ID: 19779 TANK TAG: 7513-5

TANK TYPE: UST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 8000 TANK ID: 19780 TANK TAG: 7513-6

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 2000

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 154 DIST/DIR: 0.09 NW **ELEVATION:** 5253 MAP ID: 17 NAME: DPS HILL TOP FUEL FAC REV: 04/24/12 ADDRESS: 2800 W 7TH AVE ID1: 7513 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

TANK ID: 19781 TANK TAG: 7513-7

TANK TYPE: UST TANK CONTENTS: Transmission Fluid TANK CAPACITY: 6000 TANK ID: 19782 TANK TAG: 7513-8

TANK TYPE: UST TANK CONTENTS: Ethyleneglycol/Anti Freeze TANK CAPACITY: 6000 TANK ID: 19783 TANK TAG: 7513-9

TANK TYPE: UST TANK CONTENTS: Z Hazardous Substance TANK CAPACITY: 1000 TANK ID: 19784 TANK TAG: 7513-10

TANK TYPE: LPG TANK CONTENTS: LPG TANK CAPACITY: 1999 TANK ID: 36197 TANK TAG: 7513-11

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	206	DIST/DIR:	0.09 NW	ELEVATION:	5253	MAP ID:	17				
NAME: ADDRESS:	DPS HILL TOP F 2800 W 7TH AV			REV: ID1:	04/24/12 10932						
ADDITESS.	DENVER CO 80 DENVER			ID2: STATUS:	CLOSED						
CONTACT: SOURCE:	COSTIS			PHONE:							

LUST INFORMATION STATUS: Closed LOG DATE: 9/11/2009 6:50:32 AM

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	207	DIST/DIR:	0.09 NW	ELEVATION:	5253	MAP ID:	17				
NAME: ADDRESS:	DPS SERVICE BLDG 2800 W 7TH AVE			REV: ID1:	04/24/12 3964						
CONTACT:	DENVER CO 80204 DENVER			ID2: STATUS: PHONE:	CLOSED						
SOURCE:	COSTIS			PHONE.							

LUST INFORMATION STATUS: Closed LOG DATE: 1/25/1989

Target Property: 6TH AVE DENVER, CO 80219 JOB: US 6

LUST											
SEARCH ID:	208	DIST/DIR:	0.09 NW	ELEVATION:	5253	MAP ID:	17				
NAME:	DPS SERVICE BLDG			REV:							
ADDRESS:	2800 W 7TH AVE DENVER CO 80204			ID1: ID2:	6562						
CONTACT:	DENVER			STATUS: PHONE:	CLOSED						
SOURCE:	COSTIS										

LUST INFORMATION STATUS: Closed LOG DATE: 5/15/98

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRAGN SEARCH ID:** 32 DIST/DIR: 0.09 NE **ELEVATION:** 5222 MAP ID: 18 REV: NAME: THE GLIDDEN CO 1/10/12 ADDRESS: 637 OSAGE ST ID1: COR000202747 DENVER CO 80204 **DENVER** STATUS: VGN CONTACT: PHONE:

SITE INFORMATION

SOURCE:

CONTACT INFORMATION: RHONDA CROSS 925 EUCLID AVE CLEVELAND OH 44120

PHONE: 2163448431

OWNER NAME:THE GLIDDEN CO OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR TYPE:
MAILING ADDRESS:925 EUCLID AVE CLEVELAND, OH 44115

EPA

UNIVERSE INFORMATION:

RECEIVED DATE:09/16/2002

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:N - NO SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----CLOSURE WORKLOAD:--

CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:----PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRAGN										
SEARCH ID:	32	DIST/DIR:	0.09 NE	ELEVATION:	5222	MAP ID:	18			
NAME:	THE GLIDDEN CO			REV:	1/10/12					
ADDRESS:	637 OSAGE ST			ID1:	COR000202747					
	DENVER CO 80204			ID2:						
	DENVER			STATUS:	VGN					
CONTACT:				PHONE:						
SOURCE:	EPA									

- PAINT AND WALLPAPER STORES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

				FINDS			
SEARCH ID:	122	DIST/DIR:	0.09 NE	ELEVATION:	5222	MAP ID:	18
NAME: ADDRESS:	THE GLIDDEN CO			REV: ID1:	10/25/11 110012236883		
, 22,123	DENVER CO 80204 DENVER			ID2: STATUS:	COR000202747 FRS		
CONTACT: SOURCE:	EPA			PHONE:			

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COR000202747 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:BRPROGRAM ID:COR000202747 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** 57 **DIST/DIR:** 0.09 SE **ELEVATION:** 5205 **MAP ID:** 19

NAME: AGRICULTURAL INDUSTRIAL CHEMICALS AKA HORTICULTURA

ADDRESS: 510 BRYANT ST

DENVER CO 80204

DENVER

CONTACT:

SOURCE: EPA

REV: 10/25/11 ID1: 110018930317 ID2: 6680882

STATUS: FRS

PHONE:

FACILITY REGISTRATION INFORMATION:

PROGRAM:NCDBPROGRAM ID:I08#2004051213582 1 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ICISPROGRAM ID:6680882 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 147 DIST/DIR: 0.09 SE **ELEVATION:** 5205 MAP ID: 19 NAME: **BRYANT CONVENIENCE** REV: 04/24/12 ADDRESS: 510 BRYANT ST ID1: 10653 DENVER CO 80204 DENVER STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 20961 OWNER NAMME: OWNER ADDRESS: 510 BRYANT ST DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 1 - Unleaded Regular (RUL) TANK CAPACITY: 10000 TANK ID: 29008 TANK TAG: 10653-1

TANK TYPE: UST TANK CONTENTS: 3 - Unleaded Premium (PUL) TANK CAPACITY: 3000 TANK ID: 29009 TANK TAG: 10653-2

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 3000 TANK ID: 29010 TANK TAG: 10653-3

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 300 TANK ID: 29011 TANK TAG: 10653-4

TANK TYPE: LPG TANK CONTENTS: LPG TANK CAPACITY: 1000 TANK ID: 36100 TANK TAG: 10653-5

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=10653

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	197	DIST/DIR:	0.09 SE	ELEVATION:	5205	MAP ID:	19
NAME:	BRYANT CONV	'ENIENCE		REV:	04/24/12		
ADDRESS:	510 BRYANT ST	Γ		ID1:	10429		
	DENVER CO 80	)204		ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 8/6/2007 3:10:26 PM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=10429

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 198 DIST/DIR: 0.09 SE **ELEVATION:** 5205 MAP ID: 19 NAME: BRYANT STREET PHILLIPS REV: 04/24/12 ADDRESS: 510 BRYANT ST ID1: 10078 DENVER CO 80204 ID2: DENVER STATUS: OPEN PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Open LOG DATE: 5/12/2006 1:56:35 PM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=10078

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	83	DIST/DIR:	0.09 NE	ELEVATION:	5207	MAP ID:	20
NAME: ADDRESS:	ROBINSON DA 646 BRYANT ST DENVER CO 80 DENVER	Г		REV: ID1: ID2: STATUS:	CO0002416790		
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

				FINDS			
SEARCH ID:	84	DIST/DIR:	0.09 NE	ELEVATION:	5207	MAP ID:	20
NAME: ADDRESS:	ROBINSON DA 646 BRYANT S' DENVER CO 80 DENVER	Т		REV: ID1: ID2: STATUS:	10/25/11 110010689139 25812 FRS		
CONTACT: SOURCE:	EPA			PHONE:			

FACILITY REGISTRATION INFORMATION:

PROGRAM:ICISPROGRAM ID:25812 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**DOCKET SEARCH ID:** DIST/DIR: 0.09 NE **ELEVATION:** 5207 MAP ID: 20 265 REV: NAME: **ROBINSON DAIRY INC** 1/30/07 ADDRESS: 08-1998-0105 646 BRYANT ST ID1: DENVER CO 80204 08-1998-0105 **DENVER** STATUS: ICIS CONTACT: PHONE:

SITE INFORMATION

EPA

SOURCE:

ICIS = INTEGRATED COMPLIANCE INFORMATION SYSTEM

ENFORCEMENT NUMBER:08-1998-0105
ACTION TYPE:ADMINISTRATIVE - FORMAL
ACTIVITY STATUS:CLOSED
COURT DOCKET NUM:EPCRA-VIII-98-02
HQ DIVISION:TOX
ENFORCEMENT OUTCOME:FINAL ORDER WITH PENALTY
BRANCH:
VOL SELF DISCLOSURE:

ENFORCEMENT TYPE:EPCRA 325 AO FOR COMPLIANCE AND/OR PENALTY VIOLATION TYPE: REFIEF REQUESTED:

DEFENDANT NAME:ROBINSON DAIRY, INC. NAMED IN COMPLAINT:YES NAMED IN SETTLEMENT:YES

CONCLUSION ID:36353 CONCLUSION NAME:ROBINSON DAIRY, INC. SETTLE LODGE DATE:06/25/1998 SETTLE ENTERED DATE:06/25/1998 PENALTY SOUGHT AMT:\$1,295 FED PENALTY ACCESSED AMT:\$1,295 LOCAL PENALTY AMT: TOTAL SEP AMT(DERIVED):\$5,000 COMP ACTION AMT: COST REC AWARDED AMT:

#### CASE SUMMARY:

ADMINISTRATIVE ORDER ISSUED TO ROBINSON DAIRY, INC. FOR FAILURE TO SUBMIT A COMPLETED EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY FORM FOR ANHYDROUS AMMONIA AND DIESEL FUEL ON OR BEFORE MARCH 1, 1997, AND FOR STORAGE OF HAZARDOUS CHEMICALS AT THE FACILITY WHICH EXCEEDED THE AMOUNT EQUAL TO OR GREATER THAN THE THRESHOLDS ESTABLISHED IN 40 CFR PART 370. PROPOSED PENALTY IS \$7,970.

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 109 DIST/DIR: 0.09 NE **ELEVATION:** 5222 MAP ID: 21 NAME: EMPRESS CHINCHILLA BREEDERS CO REV: ADDRESS: 627 OSAGE ST ID1: COD980452874 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE:

DETAILS NOT AVAILABLE

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	110	DIST/DIR:	0.09 NE	ELEVATION:	5222	MAP ID:	21
NAME: ADDRESS:	JOHN PHILLIPS 627 OSAGE ST DENVER CO 802 DENVER			REV: ID1: ID2: STATUS:	CO0000755454		
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**FINDS** 

**SEARCH ID:** DIST/DIR: 0.09 NE **ELEVATION:** 5222 MAP ID: 21 112

REV: NAME: JOHN PHILLIPS PRINTING 11/1/06 ADDRESS: 627 OSAGE ST ID1: 110001724894 DENVER CO 80204 0803101356

**DENVER** STATUS: FRS PHONE:

CONTACT: SOURCE:

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFS PROGRAM ID:0803101356PROVIDED BY:FEDERAL AGENCY AGENCY INTERESTED:AGENCY INT QUAL: INTEREST ENDED:INT END QUAL: SOURCE OF DATA: AIRS/AFSLAST REPORTED: 11/1/2001
LAST EXTRACTED: ENFORCEMENT ACT:
REG PROGRAM: AIR MINOR - A FACILITY IS CLASSIFIED AS A CLEAN AIR ACT STATIONARY SOURCE MINOR DISCHARGER OF AIR POLLUTANTS IF: (A) POTENTIAL

UNCONTROLLED EMISSIONS < 100 TONS/YEAR; OR (B) MAJOR SOURCE THRESHOLDS ARE NOT DEFINED, OR CLASSIFICATION IS UNKNOWN.

PROGRAM:FRS PROGRAM ID:110001724894PROVIDED BY:FEDERAL AGENCY AGENCY INTERESTED: AGENCY INT QUAL: INTEREST ENDED:INT END QUAL: SOURCE OF DATA:FRSLAST REPORTED: LAST EXTRACTED:ENFORCEMENT ACT: REG PROGRAM: FACILITY -

SITE TYPE:STATIONARY INTEREST STATUS:ACTIVE DATA QUALITY:V LOCATION DESC: ADDRESS TYPE:REGULAR URBAN LAST REPORTED: POSTED TO DATABASE:3/1/2000 DATA UPDATED:2/4/2006 8:50:47 AM ENTERED PERSON/METHOD:REFRESH PARENT REG ID: CONFIDENCE IN ADDR:MEDIUM CONFIDENCE IN ADDR:MEL ENFORCEMENT SENSITIVE: REQ MANUAL REVIEW: REASON MAN REVIEW: SMALL BUS POLICY: ENFORCEMENT ACTION: DATA PUB ACCESS:YES INTERNAL SYS ID:

FEDERAL FACILITY:NO TRIBAL LAND:
TRIBAL LAND:
TRIBAL LAND NAME:
CONGRESSIONAL DIST:01
LEGISLATIVE DIST: HYDROLOGICAL UNTIS:10190002 **EPA REGION:08** AIRSHED:

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRANLR** 

REV:

ID1:

1/10/12

COD007084155

**SEARCH ID:** DIST/DIR: 0.10 NE **ELEVATION:** 5206 MAP ID: 22 44

NAME: SQUARE D COMPANY ADDRESS: 677 ALCOTT

DENVER CO 80204

**DENVER** STATUS: NLR CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: E.S. GUNDERMAN **677 ALCOTT STREET** DENVER CO 80204

PHONE: 3035348281

OWNER NAME:SQUARE D COMPANY OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR\_TYPE:
MAILING ADDRESS:677 ALCOTT STREET DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:11/30/1995

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:N - NO SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO **GENERATOR STATUS:N** 

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:SHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

			RCRANLR				
SEARCH ID:	44	DIST/DIR:	0.10 NE	ELEVATION:	5206	MAP ID:	22
NAME:	SQUARE D CO	MPANY		REV:	1/10/12		
ADDRESS:	677 ALCOTT			ID1:	COD0070841	55	
	DENVER CO 80	0204		ID2:			
	DENVER			STATUS:	NLR		
CONTACT:				PHONE:			
SOURCE:	EPA						

- SWITCHGEAR AND SWITCHBOARD APPARATUS MANUFACTURING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D000

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	93	DIST/DIR:	0.10 NE	ELEVATION:	5206	MAP ID:	22
NAME: ADDRESS:	SQUARE D CO 677 ALCOTT DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	COD007084155		
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	94	DIST/DIR:	0.10 NE	ELEVATION:	5206	MAP ID:	22
NAME: ADDRESS:	SQUARE D CO 677 ALCOTT DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	10/25/11 110002963641 COD007084155 FRS		
CONTACT: SOURCE:	EPA			PHONE:			

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD007084155 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRANLR** 

REV:

ID1:

1/10/12

COT090011297

**SEARCH ID:** 48 DIST/DIR: 0.10 SE **ELEVATION:** 5206 MAP ID: 23

NAME: **DUPONT DE NEMOURS & CO** ADDRESS:

555 QUIVAS ST DENVER CO 80217

**DENVER** 

STATUS: NLR PHONE:

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: T E FOURACRE P O BOX 17236

**DENVER CO 80217** 

PHONE: 3035711928

OWNER NAME:FAIRVIEW LTD C/O JOHN H TIPPET OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR TYPE:
MAILING ADDRESS: P O BOX 17236

DENVER, CO 80217

UNIVERSE INFORMATION:

RECEIVED DATE:03/03/1981

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:N - NO SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**RCRANLR** 

REV:

1/10/12

**SEARCH ID:** 48 DIST/DIR: 0.10 SE **ELEVATION:** 5206 MAP ID: 23

NAME: **DUPONT DE NEMOURS & CO** 

ADDRESS: 555 QUIVAS ST ID1: COT090011297

DENVER CO 80217

STATUS: **DENVER** NLR

PHONE: CONTACT: SOURCE: EPA

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
D002 - Corrosive waste
F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, before use, only the above spent non- halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 107 DIST/DIR: 0.10 SE **ELEVATION:** 5206 MAP ID: 23 NAME: DUPONT DE NEMOURS & CO REV: ADDRESS: 555 QUIVAS ST ID1: COT090011297 DENVER CO 80217 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE:

**DETAILS NOT AVAILABLE** 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 23 108 0.10 SE 5206 NAME: **DUPONT DE NEMOURS & CO** REV: 10/25/11 ADDRESS: 555 QUIVAS ST ID1: 110003004249 DENVER CO 80204 COT090011297 DENVER STATUS: FRS CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COT090011297 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION
SIC INFORMATION

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**ERNS SEARCH ID:** 52 DIST/DIR: 0.10 SE **ELEVATION:** 5206 MAP ID: 24 NAME: INCIDENT REV: 12/30/08 ADDRESS: 5TH & BRYANT ID1: 88-18141-CO DENVER CO ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: NRC

INCIDENT DESCRIPTION: 9/30/88 - TRUCK RENTAL FACILITY UNKNOWN MATERIAL: OILS: DIESEL AMOUNT: 140 GAL LINK: None Available

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SPILLS** 

REV:

**SEARCH ID:** 132 **DIST/DIR:** 0.10 SE **ELEVATION:** 5206 **MAP ID:** 25

NAME: DENVER SEWER DEPT/PUBLIC WORKS

ADDRESS: 5TH AND BRYANT STREETS ID1: CO96-455

DENVER CO
DENVER
STATUS:
PHONE:

SOURCE: CDPHE

CONTACT:

PRP INFORMATION PRP NAME: DENVER SEWER DEPT/PUBLIC WORKS PRP CONTACT: PRP ADDRESS: 2000 W THIRD AVENUE

SPILL INFORMATION EVENT DATE: 7/17/1996 MATERIAL TYPE: OIL

DENVER CO 80223-

MATERIAL1: OILS, DIESEL QUANTITY1: 40 GALLONS WATER QUANTITY1: 0

MATERIAL2: QUANTITY2: 0 WATER QUANTITY2: 0

MATERIAL3: QUANTITY3: 0 WATER QUANTITY3: 0

SOURCE: HIGHWAY SOURCE TYPE: TRUCK MEDIUM: WATER AND LAND WATERWAY: RIVER CAUSE: OTHER

CAUSE INFO: OBSTRUCTION TORE OPEN TRUCK FUEL TANK

ACTION: SPILL CONTAINED, BOOMS USED ON RIVER, SURFACE CLEANED & WILL BE DISPOSED.

RESPONSE COMMENTS:

COMMENTS: PRP SECURED LEAK, PLACED BOOMS ON RIVER, SURFACE CLEANED & WILL BE DISPOSED.CONTAINED, SPILL ON ASPHALT PAVEMENT TO DRAIN TO CONCRETE PIPE TO RIVER. BOOMON RIVER, SURFACE CLEANED & WILL BE DISPOSED.

ADDITIONAL COMMENTS:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 158 DIST/DIR: 0.10 NE **ELEVATION:** 5206 MAP ID: 26 NAME: IVER J ESBENSON CO INC REV: 04/24/12 ADDRESS: 666 BRYANT ST ID1: 10743 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 5199 OWNER NAME: IVER J ESBENSON CO; OWNER ADDRESS: 666 BRYANT ST DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 500 TANK ID: 29300 TANK TAG: 10743-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=10743

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 180 DIST/DIR: 0.10 NE **ELEVATION:** 5221 MAP ID: 27 NAME: DEVOE PAINT REV: 04/24/12 ADDRESS: 657 OSAGE ST ID1: 11260 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 1816 OWNER NAME: DEVOE & REYNOLDS CO; OWNER ADDRESS: 400 DUPONT CIR LOUISVILLE KY 40207

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Z Hazardous Substance TANK CAPACITY: 1000 TANK ID: 30904 TANK TAG: 11260-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=11260

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**RCRAGN** 

**SEARCH ID:** 33 **DIST/DIR:** 0.11 NE **ELEVATION:** 5224 **MAP ID:** 28

 NAME:
 UNION PACIFIC RR CO BURNHAM SHOPS
 REV:
 1/10/12

 ADDRESS:
 680 SEMINOLE RD
 ID1:
 COD983790932

DENVER CO 80023

DENVER STATUS: VGN

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: MARK ROSS 1416 DODGE ST, RM 930 OMAHA NE 68179

PHONE: 3039644457

OWNER NAME:DENVER RIO GRANDE WRR SP LINES OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:800 SEMINOL ROAD DENVER, CO 80204

UNIVERSE INFORMATION:

**RECEIVED DATE:11/03/2000** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING / CLOSURE/POST-CLOSURE PROGRESS

CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:----PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

				RCRAGN			
SEARCH ID:	33	DIST/DIR:	0.11 NE	ELEVATION:	5224	MAP ID:	28
NAME: ADDRESS:	UNION PACIFIC	RR CO BURNHAM SH	IOPS	REV: ID1:	1/10/12 COD9837909	032	
ADDICESS.	DENVER CO 800			ID2: STATUS:	VGN	7.52	
CONTACT: SOURCE:	EPA			PHONE:	VGIV		

- LINE-HAUL RAILROADS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D000 D001 - Ignitable waste D002 - Corrosive waste D007 - Chromium

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	105	DIST/DIR:	0.11 NE	ELEVATION:	5224	MAP ID:	28
NAME: ADDRESS:	DENVER RIO GI 680 SEMINOLE DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	COD983790932		
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

**FINDS** 

PHONE:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

 SEARCH ID:
 124
 DIST/DIR:
 0.11 NE
 ELEVATION:
 5224
 MAP ID:
 28

 NAME:
 UNION PACIFIC RAILROAD CO. -BURNHAM SHOP
 REV:
 10/25/11

 ADDRESS:
 680 SEMINOLE RD
 ID1:
 110001427590

 DENVER CO 80204
 ID2:
 0803100015

 DENVER CO 80204
 ID2:
 0803100015

 DENVER
 STATUS:
 FRS

CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD983790932 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:NEIPROGRAM ID:NEICO0310015 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:AIRS/AFSPROGRAM ID:0803100015 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 179 DIST/DIR: **ELEVATION:** 5224 MAP ID: 28 0.11 NE NAME: REV: 04/24/12 DENVER LOCOMOTIVE SHOP ADDRESS: 680 SEMINOLE RD ID1: 2293 DENVER CO 80204 **DENVER** STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 5458 OWNER NAME: OWNER ADDRESS: 280 SOUTH 400 WEST SALT LAKE CITY UT 84101

TANK INFORMATION

TANK TYPE: AST TANK CONTENTS: Z Other TANK CAPACITY: 14000 TANK ID: 6442 TANK TAG: 2293-1

TANK TYPE: AST TANK CONTENTS: Z Other TANK CAPACITY: 14000 TANK ID: 6443 TANK TAG: 2293-2

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 35000 TANK ID: 6444 TANK TAG: 2293-3

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 15000 TANK ID: 6445 TANK TAG: 2293-4

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 8400 TANK ID: 6446 TANK TAG: 2293-5

TANK TYPE: AST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 35000 TANK ID: 6447 TANK TAG: 2293-6

TANK TYPE: AST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 35000

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST** 179 SEARCH ID: DIST/DIR: 0.11 NE **ELEVATION:** 5224 MAP ID: 28 NAME: DENVER LOCOMOTIVE SHOP REV: 04/24/12 ADDRESS: 680 SEMINOLE RD ID1: 2293 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

TANK ID: 6448 TANK TAG: 2293-7

TANK TYPE: AST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 10000 TANK ID: 6449 TANK TAG: 2293-8

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 2000 TANK ID: 6450 TANK TAG: 2293-9

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 186 DIST/DIR: 0.11 NE **ELEVATION:** 5224 MAP ID: 28 NAME: SPTCO DENVER LOCOMOTIVE PLANT REV: ADDRESS: 680 SEMINOLE RD ID1: 7431 DENVER CO 80204 STATUS: DENVER UST PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 5458 OWNER NAME: UNION PACIFIC RAILROAD OWNER ADDRESS: ATTN CRAIG DENNY 1416 DODGE ST ROOM 930 OMAHA CO 68149

#### TANK INFORMATION

TANK STATUS: Permanently Out of Use- UNDERGROUND STORAGE TANK TANK INSTALLED DATE:
TANK CAPACITY: 2000 GALLONS
TANK CONTENTS: Used Oil
TANK MATERIAL OF CONSTRUCTION: Asphalt Coated or Bare Steel
PIPE MATERIAL OF CONSTRUCTION: Bare Steel

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

**SEARCH ID:** 40 **DIST/DIR:** 0.11 NW **ELEVATION:** 5252 **MAP ID:** 29

 NAME:
 MARCS AUTO CHECK
 REV:
 1/10/12

 ADDRESS:
 690 FEDERAL BLVD
 ID1:
 COR000016618

DENVER CO 80204

DENVER STATUS: NLR

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: BILL MORE 690 FEDERAL BLVD DENVER CO 80204

PHONE: 3037610874

OWNER NAME:BILL MOORE OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:690 FEDERAL BLVD DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:07/17/2000

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR									
SEARCH ID:	40	DIST/DIR:	0.11 NW	ELEVATION:	5252	MAP ID:	29		
NAME:	MARCS AUTO	CHECK		REV:	1/10/12				
ADDRESS:	690 FEDERAL E	BLVD		ID1:	COR00001661	8			
	DENVER CO 80	0204		ID2:					
	DENVER			STATUS:	NLR				
CONTACT:				PHONE:					
SOURCE:	EPA								

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 75 DIST/DIR: **ELEVATION:** 5252 MAP ID: 29 0.11 NW MARCS AUTO CHECK NAME: REV: 10/25/11 ADDRESS: 690 FEDERAL BLVD ID1: 110003002928 DENVER CO 80204 COR000016618 DENVER STATUS: FRS CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COR000016618 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

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**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**UST** 29 **SEARCH ID:** 161 DIST/DIR: 0.11 NW **ELEVATION:** 5252 MAP ID: NAME: MARC S AUTOCHECK REV: 04/24/12 ADDRESS: 690 FEDERAL BLVD ID1: 15126 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 18325 OWNER NAME: MARC S AUTOCHECK; OWNER ADDRESS: 690 FEDERAL BLVD DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST
TANK CONTENTS: 6 - Used Oil (Waste Oil)
TANK CAPACITY: 550
TANK ID: 33164
TANK TAG: 15126-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=15126

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST				
SEARCH ID:	220	DIST/DIR:	0.11 NW	ELEVATION:	5252	MAP ID:	29	
NAME:	MARCS AUTOC			REV:	04/24/12			
ADDRESS:	690 FEDERAL B DENVER CO 80			ID1: ID2:	8083			
CONTACT:	DENVER			STATUS: PHONE:	CLOSED			
SOURCE:	COSTIS							

LUST INFORMATION STATUS: Closed LOG DATE: 2/16/2000

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=8083

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

1/10/12

**SEARCH ID:** 50 **DIST/DIR:** 0.11 NE **ELEVATION:** 5206 **MAP ID:** 30

NAME: SEARS ROEBUCK AND COMPANY REV:
ADDRESS: 701 OSAGE ST ID1:

DENVER STATUS: NLR

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: KEVIN KELLY 701 OSAGE ST DENVER CO 80219

PHONE: 3038928693

OWNER NAME:SEARS ROEBUCK AND CO OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:701 OSAGE ST DENVER, CO 80219

UNIVERSE INFORMATION:

RECEIVED DATE:06/30/1993

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**RCRANLR** 

REV:

1/10/12

**SEARCH ID:** 50 DIST/DIR: 0.11 NE **ELEVATION:** 5206 MAP ID: 30

NAME: SEARS ROEBUCK AND COMPANY

ADDRESS: 701 OSAGE ST ID1: COD114044506

DENVER CO 80219

STATUS: **DENVER** NLRPHONE:

CONTACT: SOURCE: EPA

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
D002 - Corrosive waste
F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, before use, only the above spent non- halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	117	DIST/DIR:	0.11 NE	ELEVATION:	5206	MAP ID:	30
NAME: ADDRESS:	SEARS ROEBUCK & COMPANY 701 OSAGE ST DENVER CO 80219 DENVER			REV: ID1: ID2: STATUS:	COD114044506	,	
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

**FINDS** 

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 118 0.11 NE 5206 30

NAME: SEARS ROEBUCK AND COMPANY REV: 10/25/11 ADDRESS: 701 OSAGE ST ID1: 110002970651 DENVER CO 80204 COD114044506

FRS

DENVER STATUS: CONTACT: PHONE:

SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD114044506 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST** DIST/DIR: **ELEVATION:** MAP ID: SEARCH ID: 184 0.11 NE 5206 30 NAME: SEARS WAREHOUSE REV: 04/24/12 ADDRESS: 701 OSAGE ST ID1: 16080 DENVER CO 80210 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 17683 OWNER NAME: CCOD PARKWAY CENTER; OWNER ADDRESS: 1391 SPEER BLVD 7TH FLOOR DENVER CO 80204

TANK INFORMATION

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=16080$ 

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**SPILLS SEARCH ID:** 133 DIST/DIR: 0.11 SW **ELEVATION:** 5238 MAP ID: 31 NAME: UNKNOWN REV: ADDRESS: 5TH AND DECATUR ID1: CO92-127

DENVER CO

**DENVER** STATUS: PHONE: **CDPHE** 

PRP INFORMATION PRP NAME: UNKNOWN PRP CONTACT: PRP ADDRESS:

CONTACT:

SOURCE:

SPILL INFORMATION EVENT DATE: 8/5/1992 MATERIAL TYPE: HAZARDOUS

MATERIAL1: POLYCHLORINATED BIPHENYLS QUANTITY1: 0 UNKNOWN WATER QUANTITY1: 0

MATERIAL2: QUANTITY2: 0 WATER QUANTITY2: 0

MATERIAL3: QUANTITY3: 0 WATER QUANTITY3: 0

SOURCE: UNKNOWN SOURCE TYPE: UNKNOWN MEDIUM: LAND WATERWAY: NONE CAUSE: DUMPING

CAUSE INFO: PCB CONTAINING TRANSFORMERS DUMPED IN ALLEY

ACTION: EPA REMOVAL

RESPONSE COMMENTS: DRUMS WILL BE DISPOSED OF AT APPROPRIATE FACILITY. INVESTIGATION OF RP IS PEN DING.

COMMENTS: ABANDONMENT OF 16 LARGE GE PYRANOL CAPACITORS AND FOUR BOXES OF SMALLER HAD-SI ZED CAPACITORS IN AN ALLEY BEHIND AN AUTO PARTS WHOLSALER. NO LEAKAGE OCCURRE D. CAPACITORS WERE PLACED IN OVERPACK DRUMS AND HAULED OFF SITE PROPER DISPO

ADDITIONAL COMMENTS:

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**UST SEARCH ID:** 163 DIST/DIR: 0.11 NE **ELEVATION:** 5203 MAP ID: 32 NAME: ROBINSON DAIRY LLC REV: 04/24/12 ADDRESS: 2400 W 7TH AVE ID1: 18490 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER INFORMATION
OWNER ID NUMBER: 21171
OWNER NAME:
OWNER ADDRESS: 2515 MCKINNEY AVE
DALLAS TX 75201

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 500 TANK ID: 41157 TANK TAG: 18490-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=18490

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	228	DIST/DIR:	0.11 NE	ELEVATION:	5203	MAP ID:	32				
NAME: ADDRESS:	ROBINSON DA 2400 W 7TH AV DENVER CO 80	Έ		REV: ID1: ID2:	04/24/12 10752						
CONTACT: SOURCE:	DENVER COSTIS			STATUS: PHONE:	CLOSED						

LUST INFORMATION STATUS: Closed LOG DATE: 11/25/2008 12:40:23 PM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=10752

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

REV:

PHONE:

1/10/12

**SEARCH ID:** 43 **DIST/DIR:** 0.12 SE **ELEVATION:** 5203 **MAP ID:** 33

**NAME:** ROCKY MOUNTAIN BANK NOTE

**ADDRESS:** 2500 W 5TH AVE **ID1:** COD980955199

WHEAT RIDGE CO 80153

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

SITE INFORMATION

OWNER NAME: OWNER TYPE: OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:

,

UNIVERSE INFORMATION:

RECEIVED DATE:11/08/2002

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:SHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

AGENCY: STATEDATE: 88/01/1988 TYPE: WRITTEN INFORMAL

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

REV:

PHONE:

1/10/12

**SEARCH ID:** 43 **DIST/DIR:** 0.12 SE **ELEVATION:** 5203 **MAP ID:** 33

NAME: ROCKY MOUNTAIN BANK NOTE

**ADDRESS:** 2500 W 5TH AVE **ID1:** COD980955199

WHEAT RIDGE CO 80153

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

#### VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 88/09/1988DETERMINED BY: S - STATE CITATION: RESOLVED: 88/19/1988 TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 88/09/1988DETERMINED BY: S - STATE CITATION: RESOLVED: 88/19/1988

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**FINDS SEARCH ID:** 87 DIST/DIR: 0.12 SE **ELEVATION:** 5203 MAP ID: 33 NAME: ROCKY MOUNTAIN BANK NOTE REV: ADDRESS: 2500 W 5TH AVE ID1: COD980955199 WHEAT RIDGE CO 80153 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE:

**DETAILS NOT AVAILABLE** 

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**FINDS SEARCH ID:** DIST/DIR: 0.12 SE **ELEVATION:** MAP ID: 88 5203 33 NAME: ROCKY MOUNTAIN BANK NOTE REV: 10/25/11 ADDRESS: 2500 W 5TH AVE ID1: 110006488906 WHEAT RIDGE CO 80033 COD980955199 DENVER STATUS: FRS CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD980955199 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

PHONE:

**SEARCH ID:** 49 **DIST/DIR:** 0.12 SE **ELEVATION:** 5212 **MAP ID:** 34

 NAME:
 PPG INDUSTRIES INC
 REV:
 1/10/12

 ADDRESS:
 590 QUIVAS ST
 ID1:
 COD078343613

DENVER CO 80204

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: BRETT LINENFELSER 7535 E HAMPDEN AVE #403 DENVER CO 802314838

PHONE: 3037435442

OWNER NAME:PPG INDUSTRIES,INC. OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:590 QUIVAS ST DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:02/14/1997

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRANLR SEARCH ID:** 49 DIST/DIR: 0.12 SE **ELEVATION:** MAP ID: 5212 34 NAME: PPG INDUSTRIES INC REV: 1/10/12 ADDRESS: 590 QUIVAS ST ID1: COD078343613 DENVER CO 80204 ID2: DENVER STATUS:  $\mathsf{NLR}$ CONTACT: PHONE:

**ENFORCEMENT INFORMATION:** 

EPA

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

SOURCE:

D000 D001 - Ignitable waste D002 - Corrosive waste

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	113	DIST/DIR:	0.12 SE	ELEVATION:	5212	MAP ID:	34			
NAME: ADDRESS:	PPG INDS INC 590 QUIVAS ST DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	COD078343613					
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 114 0.12 SE 5212 34 NAME: PPG INDUSTRIES INC REV: 10/25/11 ADDRESS: 590 QUIVAS ST ID1: 110002968646 DENVER CO 80204 COD078343613 DENVER STATUS: FRS CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD078343613 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 181 DIST/DIR: 0.12 SE **ELEVATION:** 5212 MAP ID: 34 NAME: PPG INDUSTRIES INC REV: 04/24/12 ADDRESS: 590 QUIVAS ST ID1: 7592 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 4266 OWNER NAME: PPG INDUSTRIES INC; OWNER ADDRESS: 590 QUIVAS ST DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 19972 TANK TAG: 7592-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=7592

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**NFRAP** 

**SEARCH ID:** 11 DIST/DIR: 0.13 SW **ELEVATION:** 5228 MAP ID: 35

NAME: **DECATUR PCB CAPICITORS** REV: 2/27/12 ADDRESS: 2750 W 5TH AVE ID1: COD983794652 DENVER CO 80204 0801268

DENVER STATUS: NFRAP-NFRAP-N

PHONE: CONTACT: SOURCE: EPA

DESCRIPTION:
ABANDONED CAPICITORS IN ALLEY. NO ID ON OWNER. PCB CONTAMINATION.
ACTION/QUALITY AGENCY/RPS START/RAA END
ARCHIVE SITEEPA In-House3/14/2006

ADMINISTRATIVE RECORDSEPA Fund-Financed19-92-8/5/1/7/1993 ADMIN RECORD COMPILED FOR A REMOVAL EVENTPrimary

REMOVALEPA Fund-Financed19-92-8/5/11/19/1992 CLEANED UPPrimary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

PHONE:

**SEARCH ID:** 34 **DIST/DIR:** 0.13 SW **ELEVATION:** 5228 **MAP ID:** 35

NAME:5TH DECATUR PCB CAPACITOR CLEANUPREV:1/10/12ADDRESS:DEN CAR POUND YORK AT BRIGHTONID1:COD983794652

DENVER CO 80202

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: PETER STEVENSON US EPA 999 18TH ST SUITE 500 DENVER CO 80202

PHONE: 3032931723

OWNER NAME:CITY & COUNTY OF DENVER OWNER TYPE:C-COUNTY OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS: US EPA 999 18TH ST SUITE 500 DENVER, CO 80202

UNIVERSE INFORMATION:

RECEIVED DATE:08/13/1992

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:C-COUNTYSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR										
SEARCH ID:	34	DIST/DIR:	0.13 SW	ELEVATION:	5228	MAP ID:	35			
NAME:	5TH DECATUR	PCB CAPACITOR CLEA	ANUP	REV:	1/10/12					
ADDRESS:	DEN CAR POU	IND YORK AT BRIGHTO	N	ID1:	COD983794	652				
	DENVER CO 8	0202		ID2:						
	DENVER			STATUS:	NLR					
CONTACT:				PHONE:						
SOURCE:	EPA									

ENFORCEMENT INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 55 DIST/DIR: 0.13 SW **ELEVATION:** 5228 MAP ID: 35 NAME: 5TH & DECATUR PCB CAPACITOR CLEANUP REV: ADDRESS: 2750 W 5TH AVE ID1: COD983794652 DENVER CO 80202 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE:

**DETAILS NOT AVAILABLE** 

**FINDS** 

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 35 63 0.13 SW 5228

NAME: DECATUR PCB CAPACITORS REV: 10/25/11 ADDRESS: 2750 W 5TH AVE ID1: 110009271082 DENVER CO 80204 COD983794652

DENVER STATUS: FRS

CONTACT: PHONE:

SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD983794652 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

FINDS

SEARCH ID: 92 DIST/DIR: 0.13 NW ELEVATION: MAP ID: 36

 NAME:
 SHELL S FINE PRINT
 REV:
 10/25/11

 ADDRESS:
 2943 WEST 7TH AVE
 ID1:
 110038611124

 DENVER CO 80204
 ID2:
 0803100308

 DENVER CO 80204
 ID2:
 0803100308

 DENVER
 STATUS:
 FRS

CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803100308 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RELEASES										
SEARCH ID:	260	DIST/DIR:	0.14 NE	ELEVATION:	5200	MAP ID:	37			
NAME:	UNKNOWN			REV:	11/13/90 0					
ADDRESS:	7TH STREET & PL	LATTE RIVER/NEAR SE	PE	ID1:	187885					
	DENVER CO			ID2:						
	DENVER			STATUS:	UNKNOWN (N	NRC)				
CONTACT:				PHONE:						

DETAILS NOT AVAILABLE

SOURCE:

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**FINDS** 

REV:

10/25/11

**SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 38 111 0.14 NE

NAME: JOHN PHILLIPS PRINTING ADDRESS: 627 OSAGE ST

ID1: 110038610571 DENVER CO 80204 0803101356 STATUS: FRS

DENVER

CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803101356

FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION

SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 168 DIST/DIR: 0.14 NE **ELEVATION:** 5209 MAP ID: 39 NAME: **ELMS INVESTMENT** REV: 04/24/12 ADDRESS: 730 UMATILLA ST ID1: 2969 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 411 OWNER NAME: ELMS INVESTMENT; OWNER ADDRESS: 6825 E TENNESSEE BLDG 1 STE 235 DENVER CO 80224

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 99999999 TANK ID: 8144 TANK TAG: 2969-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 999999999 TANK ID: 8145 TANK TAG: 2969-2

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=2969$ 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST ELEVATION:** MAP ID: 39 SEARCH ID: 169 DIST/DIR: 0.14 NE 5209 NAME: ELMS INVESTMENT PROPERTY REV: 04/24/12 ADDRESS: 730 UMATILLA ST ID1: 13424 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 17352 OWNER NAME: ELMS INVESTMENT CO; OWNER ADDRESS: 370 17TH ST 26TH FLOOR DENVER CO 80202

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=13424

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	209	DIST/DIR:	0.14 NE	ELEVATION:	5209	MAP ID:	39				
NAME:	ELMS INVESTM			REV:	04/24/12						
ADDRESS:	730 UMATILLA DENVER CO 80			ID1: ID2:	5434						
	DENVER			STATUS:	CLOSED						
CONTACT:				PHONE:							
SOURCE:	COSTIS										

LUST INFORMATION STATUS: Closed LOG DATE: 5/31/1996

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=5434

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

**SEARCH ID:** 36 **DIST/DIR:** 0.15 SW **ELEVATION:** 5253 **MAP ID:** 40

 NAME:
 BLAIR LABELING SYSTEMS INC
 REV:
 1/10/12

 ADDRESS:
 425 FEDERAL BLVD
 ID1:
 COD982596694

DENVER CO 80204

DENVER STATUS: NLR

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: GEORGE BLAIR 425 FEDERAL BLVD DENVER CO 80204

PHONE: 3039354254

OWNER NAME:BLAIR GEORGE F.
OWNER TYPE:P-PRIVATE
OPERATOR:
OPERATOR\_TYPE:
MAILING ADDRESS:425 FEDERAL BLVD
DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:02/23/1995

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:SHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**RCRANLR** 

REV:

1/10/12

**SEARCH ID:** 36 DIST/DIR: 0.15 SW **ELEVATION:** 5253 MAP ID: 40

NAME: **BLAIR LABELING SYSTEMS INC** 

ADDRESS: 425 FEDERAL BLVD COD982596694 ID1:

DENVER CO 80204

**DENVER** STATUS: NLR

CONTACT: PHONE:

SOURCE: EPA

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste
F001 - The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				FINDS			
SEARCH ID:	58	DIST/DIR:	0.15 SW	ELEVATION:	5253	MAP ID:	40
NAME: ADDRESS:	BLAIR LABELIN 425 FEDERAL E DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	COD982596694		
CONTACT: SOURCE:				PHONE:			

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

FINDS										
SEARCH ID:	59	DIST/DIR:	0.15 SW	ELEVATION:	5253	MAP ID:	40			
NAME:	BLAIR LABELIN	G SYSTEMS INC		REV:	10/25/11					
ADDRESS:	425 FEDERAL E	BLVD		ID1:	11000298095	3				
	DENVER CO 80	0204		ID2:	COD9825966	94				
	DENVER			STATUS:	FRS					
CONTACT:				PHONE:						

FACILITY REGISTRATION INFORMATION:

EPA

PROGRAM:RCRAINFOPROGRAM ID:COD982596694 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

SOURCE:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS									
SEARCH ID:	91	DIST/DIR:	0.15 NW	ELEVATION:	5250	MAP ID:	41		
NAME: ADDRESS:	SHELL CHEMIC 2943 W 7TH A UNK CO 9999 DENVER	·· =		REV: ID1: ID2: STATUS:	10/25/11 110002365253 NEICOLF8326 FRS				
CONTACT: SOURCE:	EPA			PHONE:					

FACILITY REGISTRATION INFORMATION:

PROGRAM:NEIPROGRAM ID:NEICOLF8326 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION NIAC INFORMATION

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**SWL** 

**ELEVATION: SEARCH ID:** 138 DIST/DIR: 0.15 SE MAP ID: 42

NAME: KNOWN LANDFILL

REV: 12/01/08 ADDRESS: BOUNDARIES APPROXIMATE: BOUNDED BY ID1: 130

00070-0000674 DENVER CO DENVER STATUS: HISTORIC PHONE:

CONTACT: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: Denver CO Old Fill Sites

METHANE PRESENT: NO NO METHANE FOUND CONFIDENCE IN THIS INFO: LOW

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES NO VISIBLE TRASH CONFIDENCE IN THIS INFO: LOW

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**RCRAGN** 

PHONE:

**SEARCH ID:** 30 DIST/DIR: **ELEVATION:** 5208 MAP ID: 43 0.16 NE

REV: NAME: E N MURRAY CO INC 1/10/12 ADDRESS: 707 UMATILLA ST ID1: COD983772815

DENVER CO 80204

**DENVER** STATUS: VGN

CONTACT: SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: RONALD COWLTHORPE 707 UMATILLA ST DENVER CO 80204

PHONE: 3038921106

OWNER NAME:E N MURRAY OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR\_TYPE:
MAILING ADDRESS:707 UMATILLA ST DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:11/09/2000

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:N - NO SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----CLOSURE WORKLOAD:--

CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:----PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRAGN										
SEARCH ID:	30	DIST/DIR:	0.16 NE	ELEVATION:	5208	MAP ID:	43			
NAME:	E N MURRAY C	O INC		REV:	1/10/12					
ADDRESS:	707 UMATILLA	ST		ID1:	COD9837728	15				
	DENVER CO 80	)204		ID2:						
	DENVER			STATUS:	VGN					
CONTACT:				PHONE:						
SOURCE:	EPA									

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D000

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS									
SEARCH ID:	96	DIST/DIR:	0.16 NE	ELEVATION:	5208	MAP ID:	43		
NAME: ADDRESS:	E N MURRAY C 707 UMATILLA DENVER CO 80 DENVER	ST		REV: ID1: ID2: STATUS:	10/25/11 110002984138 COD98377281 FRS				
CONTACT: SOURCE:	EPA			PHONE:					

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD983772815 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	97	DIST/DIR:	0.16 NE	ELEVATION:	5208	MAP ID:	43			
NAME: ADDRESS:	EN MURRAY CO INC 707 UMATILLA ST DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	COD983772815					
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

REV:

PHONE:

1/10/12

**SEARCH ID:** 47 **DIST/DIR:** 0.16 NE **ELEVATION:** 5221 **MAP ID:** 44

**NAME:** DENVER & RIO GRANDE WESTERN RAILROAD

ADDRESS: 8TH & OSAGE ID1: COD000706770

DENVER CO 80217

DENVER STATUS: NLR

CONTACT:

**SOURCE**: EPA

SITE INFORMATION

CONTACT INFORMATION: ADOLPH NANCE PO BOX 5482 DENVER CO 80217

PHONE: 3036295533

OWNER NAME:RIO GRANDE INDUSTRIES OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS: PO BOX 5482 DENVER, CO 80217

UNIVERSE INFORMATION:

RECEIVED DATE:08/13/1980

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:SHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**RCRANLR** 

REV:

ID2:

**SEARCH ID:** 47 DIST/DIR: **ELEVATION:** 5221 MAP ID: 44 0.16 NE

NAME: DENVER & RIO GRANDE WESTERN RAILROAD

1/10/12 ADDRESS: 8TH & OSAGE ID1: COD000706770

DENVER CO 80217

DENVER STATUS:  $\mathsf{NLR}$ 

PHONE: CONTACT:

**ENFORCEMENT INFORMATION:** 

EPA

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

SOURCE:

D000 D001 - Ignitable waste

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS ELEVATION: SEARCH ID:** 123 DIST/DIR: 0.16 NE 5221 MAP ID: 44 NAME: UNION PACIFIC RAILROAD CO. REV: 10/25/11 ADDRESS: 800 SEMINOLE RD ID1: 110024260235 DENVER CO 80204 COR100747 DENVER STATUS:  $\mathsf{FRS}$ PHONE: CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:PCSPROGRAM ID:COR100747 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:EISPROGRAM ID:1699911 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ICISPROGRAM ID:7731975 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 175 DIST/DIR: **ELEVATION:** 5221 MAP ID: 44 0.16 NE NAME: REV: **BURNHAM SHOPS** 04/24/12 ADDRESS: 800 SEMINOLE RD 974 ID1: DENVER CO 80204 **DENVER** STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 5458 OWNER NAME: OWNER ADDRESS: 280 SOUTH 400 WEST SALT LAKE CITY UT 84101

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 20000 TANK ID: 2830 TANK TAG: 974-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 4000 TANK ID: 2831 TANK TAG: 974-2

TANK TYPE: AST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 1000 TANK ID: 2832 TANK TAG: 974-3

TANK TYPE: AST TANK CONTENTS: Gasoline TANK CAPACITY: 1000 TANK ID: 2833 TANK TAG: 974-4

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 5000 TANK ID: 2834 TANK TAG: 974-5

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 10000 TANK ID: 2835 TANK TAG: 974-6

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 10000

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 175 DIST/DIR: 0.16 NE **ELEVATION:** 5221 MAP ID: 44 NAME: REV: **BURNHAM SHOPS** 04/24/12 ADDRESS: 800 SEMINOLE RD 974 ID1: DENVER CO 80204 **DENVER** STATUS: CONTACT: PHONE: SOURCE: COSTIS

TANK ID: 2836 TANK TAG: 974-7

TANK TYPE: AST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 10000 TANK ID: 2837 TANK TAG: 974-8

TANK TYPE: AST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 10000 TANK ID: 2838 TANK TAG: 974-9

TANK TYPE: AST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 10000 TANK ID: 2839 TANK TAG: 974-10

TANK TYPE: AST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 10000 TANK ID: 2840 TANK TAG: 974-11

TANK TYPE: AST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 10000 TANK ID: 2841 TANK TAG: 974-12

TANK TYPE: AST TANK CONTENTS: 7 - Lube Oil TANK CAPACITY: 10000 TANK ID: 2842 TANK TAG: 974-13

TANK TYPE: AST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 35000 TANK ID: 2843 TANK TAG: 974-14

TANK TYPE: AST TANK CONTENTS: 6 - Used Oil (Waste Oil) TANK CAPACITY: 16800

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 175 DIST/DIR: **ELEVATION:** MAP ID: 0.16 NE 5221 44 NAME: **BURNHAM SHOPS** REV: 04/24/12 ADDRESS: 800 SEMINOLE RD ID1: 974 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

TANK ID: 35503 TANK TAG: 974-15

TANK TYPE: AST TANK CONTENTS: Diesel #2 TANK CAPACITY: 20000 TANK ID: 41469 TANK TAG: 974-17

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 245 DIST/DIR: **ELEVATION:** 5221 MAP ID: 44 0.16 NE NAME: SOUTHERN PACIFIC RAILWAY - BURNHAM YARD REV: 04/24/12 ADDRESS: 800 SEMINOLE RD ID1: 442 DENVER CO 80201 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 12/4/1995

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=442

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	246	DIST/DIR:	0.16 NE	ELEVATION:	5221	MAP ID:	44		
NAME: ADDRESS:	SOUTHERN PAG 800 SEMINOLE	CIFIC RAILWAY BURNH RD	IAM YARD	REV: ID1:	04/24/12 447				
CONTACT:	DENVER CO 80 DENVER	201		ID2: STATUS: PHONE:	CLOSED				
SOURCE:	COSTIS			THORE.					

LUST INFORMATION STATUS: Closed LOG DATE: 4/9/1992

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=447

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	71	DIST/DIR:	0.17 SW	ELEVATION:	5260	MAP ID:	45			
NAME: ADDRESS:	K O K AUTO RI 450 FEDERAL DENVER CO 00 DENVER	EPAIR & BODY SHOP		REV: ID1: ID2: STATUS:	CO0000714568					
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

**Target Property:** JOB: **6TH AVE** US 6

**DENVER, CO 80219** 

**FINDS** 

**SEARCH ID:** 72 DIST/DIR: 0.17 SW **ELEVATION:** MAP ID: 45 5260

REV: NAME: K O K AUTO REPAIR & BODY SHOP 11/1/06 ADDRESS: 450 FEDERAL BLVD ID1: 110001428170 DENVER CO 80204 0803100859

**DENVER** STATUS: FRS

CONTACT: PHONE: SOURCE:

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFS PROGRAM ID:0803100859PROVIDED BY:FEDERAL AGENCY AGENCY INTERESTED:AGENCY INT QUAL: INTEREST ENDED:INT END QUAL: SOURCE OF DATA: AIRS/AFSLAST REPORTED: 11/1/2001
LAST EXTRACTED: ENFORCEMENT ACT:
REG PROGRAM: AIR MINOR - A FACILITY IS CLASSIFIED AS A CLEAN AIR ACT STATIONARY SOURCE MINOR DISCHARGER OF AIR POLLUTANTS IF: (A) POTENTIAL

UNCONTROLLED EMISSIONS < 100 TONS/YEAR; OR (B) MAJOR SOURCE THRESHOLDS ARE NOT DEFINED, OR CLASSIFICATION IS UNKNOWN.

PROGRAM:FRS PROGRAM ID:110001428170PROVIDED BY:FEDERAL AGENCY AGENCY INTERESTED: AGENCY INT QUAL: INTEREST ENDED:INT END QUAL: SOURCE OF DATA:FRSLAST REPORTED: LAST EXTRACTED:ENFORCEMENT ACT: REG PROGRAM: FACILITY -

SITE TYPE:STATIONARY INTEREST STATUS:ACTIVE DATA QUALITY:V LOCATION DESC: ADDRESS TYPE:REGULAR URBAN LAST REPORTED:
POSTED TO DATABASE:3/1/2000
DATA UPDATED:2/4/2006 10:42:15 AM DATA UPDATED:2/4/2006 10:42:15 AM
ENTERED PERSON/METHOD:REFRESH
PARENT REG ID:
CONFIDENCE IN ADDR:
ENFORCEMENT SENSITIVE:
REQ MANUAL REVIEW:
REASON MAN REVIEW:
SMALL BUS POLICY:
ENFORCEMENT ACTION:
DATA PUB ACCESS:YES
INTERNAL SYS ID: INTERNAL SYS ID:

FEDERAL FACILITY:NO TRIBAL LAND:
TRIBAL LAND:
TRIBAL LAND NAME:
CONGRESSIONAL DIST:01
LEGISLATIVE DIST: HYDROLOGICAL UNTIS:10190002 **EPA REGION:08** AIRSHED:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 150 DIST/DIR: 0.17 SW **ELEVATION:** 5260 MAP ID: 45 NAME: CHARLES YAMAGUCHI REV: 04/24/12 ADDRESS: 450 FEDERAL BLVD ID1: 5393 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 5131 OWNER NAME: YAMAGUCHI; CHARLES OWNER ADDRESS: 450 FEDERAL BLVD DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Z Unknown TANK CAPACITY: 99999999 TANK ID: 14818 TANK TAG: 5393-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=5393

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 45 166 0.17 SW 5260 NAME: YAMAGUCHI PROPERTY REV: 04/24/12 ADDRESS: 450 FEDERAL BLVD ID1: 13124 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 16232 OWNER NAME: YAMAGUCHI; CHARLES OWNER ADDRESS: 11530 W 39TH PL WHEAT RIDGE CO 80033

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=13124

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	234	DIST/DIR:	0.17 SW	ELEVATION:	5260	MAP ID:	45			
NAME:	YAMAGUCHI PI	ROPERTY		REV:	04/24/12					
ADDRESS:	450 FEDERAL B	LVD		ID1:	5269					
	DENVER CO 80	204		ID2:						
	DENVER			STATUS:	OPEN					
CONTACT:				PHONE:						
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Open LOG DATE: 5/25/1994

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=5269

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 167 0.17 NE 5207 46 NAME: 740 INVESTORS REV: 04/24/12 ADDRESS: 740 UMATILLA ST ID1: 12272 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 16706 OWNER NAME: 740 INVESTORS WOLFE JOHNSON MC; OWNER ADDRESS: 740 UMATILLA ST DENVER CO 80204

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=12272

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID: ELEVATION:** MAP ID: 172 DIST/DIR: 0.17 NE 5207 46 NAME: WOLF JOHNSON & MCCORMICK REV: 04/24/12 ADDRESS: 740 UMATILLA ST ID1: 6273 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 9999 OWNER NAME: UNKNOWN; OWNER ADDRESS: UNKNOWN ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=6273

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	190	DIST/DIR:	0.17 NE	ELEVATION:	5207	MAP ID:	46		
NAME:	740 INVESTORS			REV:	04/24/12				
ADDRESS:	740 UMATILLA ST			ID1:	2871				
	DENVER CO 80204			ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 3/16/1993

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=2871

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**PRP** DIST/DIR: **ELEVATION:** 5208 MAP ID: 47 **SEARCH ID:** 266 0.17 SE NAME: MAY D AND F REV: 3/30/11 ADDRESS: 445 BRYANT ST ID1: 8272200 DENVER CO 80223 COD980807374 STATUS: PRP PHONE: CONTACT: SOURCE: EPA

SITE INFORMATION

SITE EPA ID:COD980807374
SITE ID:0800265
SITE NAME:ROCKY FLATS INDUSTRIAL PARK (THORO - AERRCO - GWI)
NPL STATUS:NOT ON THE NPL
NON NPL STATUS:
ACTION DATE:
SETTLEMENT NAME:
COMPLETION DATE:

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**RCRAGN** 

REV:

**SEARCH ID:** 24 DIST/DIR: 0.18 SW **ELEVATION:** 5319 MAP ID: 48

NAME: HEPPTING LEATHER CLEANERS

6/6/06 ADDRESS: 3469 W 4TH AVE COD983793860 ID1:

DENVER CO 80219

**DENVER** STATUS: VGN

JOHN HEPPTING 3037332831 CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

UNIVERSE INFORMATION:

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:N - NO
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE PROGRE PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----CORRECTIVE ACTION WORKLOAD:N - NO

GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

F002 - The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2trifluoroethane, ortho-dichlorobenzene, trichlorofluoro

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

1/10/12

PHONE:

**SEARCH ID:** 38 **DIST/DIR:** 0.18 SW **ELEVATION:** 5319 **MAP ID:** 48

NAME:HEPPTING LEATHER CLEANERSREV:ADDRESS:3469 W 4TH AVEID1:

3469 W 4TH AVE ID1: COD983793860

DENVER CO 80219

DENVER STATUS: NLR

CONTACT: SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: JOHN HEPPTING 3469 W 4TH AVE DENVER CO 80219

PHONE: 3037332831

OWNER NAME: JOHN HEPPTING OWNER TYPE: P-PRIVATE OPERATOR: JOHN HEPPTING OPERATOR TYPE: P-PRIVATE MAILING ADDRESS: 450 S HIGH ST DENVER, CO 80209

UNIVERSE INFORMATION:

RECEIVED DATE:12/11/2006

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR									
SEARCH ID:	38	DIST/DIR:	0.18 SW	ELEVATION:	5319	MAP ID:	48		
NAME:	HEPPTING LEA	THER CLEANERS		REV:	1/10/12				
ADDRESS:	3469 W 4TH A\	/E		ID1:	COD9837938	60			
	DENVER CO 80	)219		ID2:					
	DENVER			STATUS:	NLR				
CONTACT:				PHONE:					
SOURCE:	EPA								

- DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	68	DIST/DIR:	0.18 SW	ELEVATION:	5319	MAP ID:	48			
NAME: ADDRESS:	HEPPTING LEA 3469 W 4TH AV DENVER CO 80 DENVER	<del>-</del>		REV: ID1: ID2: STATUS:	COD983793860					
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

FINDS

**SEARCH ID:** 69 **DIST/DIR:** 0.18 SW **ELEVATION:** 5319 **MAP ID:** 48

 NAME:
 HEPPTING LEATHER CLEANERS
 REV:
 10/25/11

 ADDRESS:
 3469 W 4TH AVE
 ID1:
 110002989678

DENVER CO 80219 ID2: COD983793860

DENVER STATUS: FRS

CONTACT: PHONE:

FACILITY REGISTRATION INFORMATION:

EPA

PROGRAM:RCRAINFOPROGRAM ID:COD983793860

FEDERAL FACILITY: TRIBAL LAND:

SOURCE:

SIC INFORMATION

NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRAGN SEARCH ID:** 25 DIST/DIR: 0.18 SE **ELEVATION:** MAP ID: 49 5210 NAME: MAY D&F DISTRIBUTION CENTER REV: 12/9/02 ADDRESS: 445 BRYANT ST ID1: COD983799776 DENVER CO 80204 ID2: DENVER STATUS: SGN CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

**SEARCH ID:** 41 **DIST/DIR:** 0.18 SE **ELEVATION:** 5210 **MAP ID:** 49

 NAME:
 MAY D&F DISTRIBUTION CENTER
 REV:
 1/10/12

 ADDRESS:
 445 BRYANT ST
 ID1:
 COD983799776

DENVER CO 80204 ID2:

DENVER STATUS: NLR

CONTACT: PHONE:

SITE INFORMATION

SOURCE:

CONTACT INFORMATION: BOB DICINO 445 BRYANT ST

EPA

DENVER CO 80204

PHONE: 3036207545

OWNER NAME:MAY D&F OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:445 BRYANT ST DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:05/01/2003

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**RCRANLR** 

REV:

1/10/12

**SEARCH ID:** 41 DIST/DIR: 0.18 SE **ELEVATION:** 5210 MAP ID: 49

NAME: MAY D&F DISTRIBUTION CENTER

ADDRESS: 445 BRYANT ST ID1: COD983799776

DENVER CO 80204

STATUS: **DENVER** NLR

PHONE: CONTACT:

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

EPA

SOURCE:

D001 - Ignitable waste F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. U155 - 1,2-Ethanediamine, N,N-dimethyl-N -2-pyridinyl-N -(2- thienylmethyl)- (OR) Methapyrilene

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	76	DIST/DIR:	0.18 SE	ELEVATION:	5210	MAP ID:	49			
NAME: ADDRESS:	MAY D&F DIST CTR 445 BRYANT ST DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	COD983799776					
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

**FINDS** 

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

77 DIST/DIR: **ELEVATION:** 49 **SEARCH ID:** 0.18 SE 5210 MAP ID:

NAME: MAY D&F DISTRIBUTION CENTER REV: 10/25/11 ADDRESS: 445 BRYANT ST ID1: 110002991415 DENVER CO 80204 COM000001166

FRS

DENVER STATUS: CONTACT: PHONE:

SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COD983799776 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ECOMAPPROGRAM ID:COM000001166 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

NIAC INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRAGN										
SEARCH ID:	27	DIST/DIR:	0.19 NW	ELEVATION:	5209	MAP ID:	50			
NAME:	PSCO - 7TH AV	/E SVR CTR		REV:	9/9/03					
ADDRESS:	2701 W 7TH A			ID1:	COD13389613	4				
	DENVER CO 80	0204		ID2:						
	DENVER			STATUS:	SGN					
CONTACT:	TERRY STALEY	′		PHONE:	7204972107					
SOURCE:	EPA									

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

PHONE:

**SEARCH ID:** 42 **DIST/DIR:** 0.19 NW **ELEVATION:** 5209 **MAP ID:** 50

 NAME:
 PSCO - 7TH AVE SVC CTR
 REV:
 1/10/12

 ADDRESS:
 2701 W 7TH AVE
 ID1:
 COD133896134

DENVER CO 80204

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: TERRY STALEY 4653 TABLE MOUNTAIN DR GOLDEN CO 80403

PHONE: 7204972107

OWNER NAME:PUBLIC SERVICE COMPANY OF COLORADO OWNER TYPE:P-PRIVATE OPERATOR:PSCO-7TH AVE SVC CTR OPERATOR\_TYPE:P-PRIVATE MAILING ADDRESS:4653 TABLE MOUNTAIN DR UNIVERSE INFORMATION:

RECEIVED DATE:09/30/2003

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

2212 - NATURAL GAS DISTRIBUTION 2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION

- Continued on next page -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRANLR** 

REV:

1/10/12

**SEARCH ID:** 42 DIST/DIR: 0.19 NW **ELEVATION:** 5209 MAP ID: 50

NAME: PSCO - 7TH AVE SVC CTR ADDRESS:

2701 W 7TH AVE ID1: COD133896134

DENVER CO 80204

**DENVER** STATUS: NLR

CONTACT: PHONE: SOURCE:

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

EPA

D000

D001 - Ignitable waste

D002 - Corrosive waste
F001 - The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures

solvent mixtures.
F002 - The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2, trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

These spent solvents and spent solvent mixtures. F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**FINDS** 

10/25/11

110001393965

**SEARCH ID:** 81 DIST/DIR: 0.19 NW **ELEVATION:** 5209 MAP ID: 50

NAME: PUBLIC SERVICE COMPANY 7TH AVENUE SERVICE CENTER ADDRESS:

REV: 2701 W 7TH AVE ID1:

DENVER CO 80204 108#19930331CO004 1

STATUS: DENVER  $\mathsf{FRS}$ 

PHONE: CONTACT:

SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:NCDBPROGRAM ID:I08#19930331CO004 1

FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:EISPROGRAM ID:4442611 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ECOMAPPROGRAM ID:COM000000581 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RCRAINFOPROGRAM ID:COD133896134 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:AIRS/AFSPROGRAM ID:0803101549 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:NEIPROGRAM ID:NEICO0311549 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

NIAC INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS									
SEARCH ID:	82	DIST/DIR:	0.19 NW	ELEVATION:	5209	MAP ID:	50		
NAME: ADDRESS:	PUBLIC SVC CO 2701 W 7TH AVE DENVER CO 80204			REV: ID1: ID2:	COD133896134				
CONTACT: SOURCE:	DENVER			STATUS: PHONE:					

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 191 DIST/DIR: 0.19 NW **ELEVATION:** 5209 MAP ID: 50 NAME: 7TH AVENUE SERVICE CENTER REV: 04/24/12 ADDRESS: 2701 W 7TH AVE ID1: 3684 DENVER CO 80204 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 2/6/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=3684

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**PADS ELEVATION: SEARCH ID:** 261 DIST/DIR: 0.19 NW 5209 MAP ID: 50 NAME: SEVENTH AVE SERVICE CTR REV: 10/21/11 ADDRESS: 2701 W 7TH AVE ID1: COD133896134 DENVER CO 80204 ID2: DENVER STATUS: PCB ACTIVITY BAAL A F PHONE: (303)571-3512 CONTACT: SOURCE: EPA

SITE INFORMATION

EPA ID:COD133896134 RECEIVE DATE:18-APR-90

TYPE OF PCB ACTIVITY:

GENERATOR:YSTORER: TRANSPORTER:DISPOSER: RESEARCH:SMELTER:

INSTALLATION CONTACT:BAAL A F (303)571-3512

OWNER NAME: PUBLIC SERVICE CO OF COLORADO

MAILING ADDRESS:PO BOX 840 DEMVER CO 80201

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

PHONE:

**SEARCH ID:** 70 **DIST/DIR:** 0.19 SW **ELEVATION: MAP ID:** 51

 NAME:
 K O K AUTO REPAIR & BODY SHOP
 REV:
 10/25/11

 ADDRESS:
 450 FEDERAL BLVD
 ID1:
 110038609609

 DENVER CO 80204
 ID2:
 0803100859

 DENVER CO 80204
 ID2:
 0803100859

 DENVER
 STATUS:
 FRS

CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803100859

FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 151 DIST/DIR: 0.19 NE **ELEVATION:** 5203 MAP ID: 52 NAME: DANA KEPNER CO REV: 04/24/12 ADDRESS: 700 ALCOTT ST ID1: 6038 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 1669 OWNER NAME: DANA KEPNER CO; OWNER ADDRESS: 700 ALCOTT DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 4000 TANK ID: 16360 TANK TAG: 6038-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=6038

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRATSD** 

REV:

6/8/02

**SEARCH ID:** 14 DIST/DIR: 0.20 NE **ELEVATION:** 5206 MAP ID: 53

NAME: LINCOLN PLATING COMPANY

ADDRESS: COD007073901 777 UMATILLA ID1:

DENVER CO 80204

**DENVER** STATUS: TSD

CONTACT: DOUG BALL PHONE: 4024753671

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: DOUG BALL ENV COMPL MGR 777 UMATILLA

DENVER CO 80204

PHONE: 4024753671

UNIVERSE NAME:

DF: LAND DISPOSAL FACILITY INCINERATOR TSDS SUBJECT TO CORRECTIVE ACT SUBJECT TO CEI
ST: STORAGE AND TREATMENT
SUBJECT TO CORRECTIVE ACTION

SIC INFORMATION:

**ENFORCEMENT INFORMATION:** 

AGENCY: S - STATEDATE: 29-JUN-87 TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001RESPONSIBLE: S - STATE DETERMINED: 13-MAR-87DETERMINED BY: S - STATE CITATION: RESOLVED: 06/29/1987 TYPE: GER - GENERATOR ALL REQUIREMENTS

VIOLATION NUMBER: 0002RESPONSIBLE: S - STATE DETERMINED: 25-JUL-00DETERMINED BY: S - STATE CITATION: 262.34,265.195,265.174RESOLVED: 10/02/2000 TYPE: GGR - GENERATOR GENERAL REQUIREMENTS

VIOLATION NUMBER: 0003RESPONSIBLE: S - STATE DETERMINED: 25-JUL-00DETERMINED BY: S - STATE CITATION: 262.20RESOLVED: 10/02/2000 TYPE: GMR - GENERATOR MANIFEST REQUIREMENTS

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

REV:

PHONE:

1/10/12

**SEARCH ID:** 17 DIST/DIR: 0.20 NE **ELEVATION:** 5206 MAP ID: 53

NAME: LINCOLN PLATING COMPANY ADDRESS:

777 UMATILLA ID1: COD007073901

DENVER CO 80204

**DENVER** STATUS: CA

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: RICK DICKEY 600 WEST E ST

LINCOLN NE 68522

PHONE: 4024753671

OWNER NAME:CAI TECHNOLOGIES OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR TYPE:
MAILING ADDRESS:600 WEST E ST

LINCOLN, NE 68522

UNIVERSE INFORMATION: RECEIVED DATE:08/30/2002

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:----

CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO

GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:-GW CONTROLS:-LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

			ſ	RCRACOR				
SEARCH ID:	17	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53	
NAME: ADDRESS:	LINCOLN PLAT 777 UMATILLA DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	1/10/12 COD00707390	01		
CONTACT: SOURCE:	EPA			PHONE:	CA			

- ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

**ENFORCEMENT INFORMATION:** 

AGENCY: STATEDATE: 00/25/2000 TYPE: V3 Conversion Compliance Advisory

VIOLATION INFORMATION:

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 00/25/2000DETERMINED BY: S - STATE CITATION: RESOLVED: 00/02/2000
TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 3RESPONSIBLE: S - STATE DETERMINED: 00/25/2000DETERMINED BY: S - STATE CITATION: RESOLVED: 00/02/2000

TYPE: GENERATORS - MANIFEST

CORRECTIVE ACTION INFORMATION

CA EVENT:97/28/1997 CA225YE - STABILIZATION MEASURES EVALUATION - FACILITY IS AMENABLE TO STABILIZATION ACTIVITY

CA EVENT:97/30/1997 CA120 - RFI WORKPLAN MODIFICATION REQUESTED BY AGENCY

CA EVENT:97/26/1997 CA814AS

CA EVENT:97/28/1997 CA725NO - CURRENT HUMAN EXPOSURES UNDER CONTROL - NOT UNDER CONTROL

CA EVENT:97/28/1997 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:97/28/1997 CA100 - RFI IMPOSITION

CA EVENT:97/15/1997 CA070YE - DETERMINATION OF NEED FOR AN RFI - RFI IS NECESSARY

CA EVENT:97/12/1997 CA811AS

CA EVENT:97/15/1997 CA075ME - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A MEDIUM CORRECTIVE ACTION PRIORITY

CA EVENT:97/15/1997 CA077M

CA EVENT:97/28/1997 CA075LO - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A LOW CORRECTIVE ACTION PRIORITY

CA EVENT:97/15/1997 CA060 - NOTICE OF CONTAMINATION

CA EVENT:97/15/1997 CA006AC

CA EVENT:97/28/1997 CA750NO - GROUNDWATER RELEASES CONTROLLED DETERMINATION - UNACCEPTABLE MIGRATION OF GW IS OBSERVED OR

Target Property: 6TH AVE DENVER, CO 80219 JOB: US 6

			F	RCRACOR			
SEARCH ID:	17	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53
NAME: ADDRESS: CONTACT: SOURCE:	LINCOLN PLAT 777 UMATILLA DENVER CO 80 DENVER			REV: ID1: ID2: STATUS: PHONE:	1/10/12 COD007073901 CA		
CA 5./5NT 00/6	24.4000	CTARULTATION MEAG	NUDEC INADI EN MENITES				
		<ul> <li>STABILIZATION MEAS</li> <li>STABILIZATION CONS</li> </ul>					
		- RFI WORKPLAN APPR		I I E D			
		- RFI SUPPLEMENTAL II		IESTED BY AGENCY			
		- RFI REPORT RECEIVED		LSTED BY AGENCY			
		- CMS WORKPLAN REC					
		- CMS WORKPLAN MO		STED BY AGENCY			
	04/1998 CA814						
CA EVENT:99/2	26/1999 CA816						
CA EVENT:00/2	29/2000 CA155	- RFI SUPPLEMENTAL II	NFORMATION REQU	ESTED BY AGENCY			
CA EVENT:00/1	9/2000 CA160	- RFI SUPPLEMENTAL II	NFORMATION RECEI	IVED			
CA EVENT:02/1	4/2002 CA100	- RFI IMPOSITION					
CA EVENT:02/1	5/2002 CA450	- CORRECTIVE MEASUI	RES DESIGN APPROV	/ED			
CA EVENT:02/1	5/2002 CA300	- CMS WORKPLAN APP	ROVED				
CA EVENT:02/0	04/2002 CA260	- CMS WORKPLAN REC	EIVED				
CA EVENT:02/1	5/2002 CA400	- CA400-REMEDY DECI	SION				
CA EVENT:06/2	26/2006 CA831	ОМ					
CA EVENT:06/1	2/2006 CA834	ОМ					
CA EVENT:07/1	5/2007 CA834	ОМ					
CA EVENT:07/0	09/2007 CA831	OM					
CA EVENT:07/1	5/2007 CA999	RM - CORRECTIVE ACTI	ON PROCESS TERM	INATED - REMEDIAL ACTIVIT	IES COMPLETED		
HAZARDOUS V	VASTE INFORMA	ATION:					
D001 - Ignitable D002 - Corrosiv D007 - Chromiu	e waste						

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				RCRAGN			
SEARCH ID:	31	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53
NAME:	LINCOLN PLAT	TING COMPANY		REV:	10/8/02		
ADDRESS:	777 UMATILLA			ID1:	COD007073901		
	DENVER CO 80	0204		ID2:			
	DENVER			STATUS:	LGN		
CONTACT:	RICK DICKEY			PHONE:	4024753671		
SOURCE:	EPA						

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

**SEARCH ID:** 45 **DIST/DIR:** 0.20 NE **ELEVATION:** 5206 **MAP ID:** 53

 NAME:
 LINCOLN PLATING COMPANY
 REV:
 12/11/09

 ADDRESS:
 777 UMATILLA ST
 ID1:
 COD007073901

DENVER CO 80204 ID2:

DENVER STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: RICK DICKEY 600 WEST E ST

LINCOLN NE 68522 PHONE: 4024753671

UNIVERSE INFORMATION:

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N HUMAN EXPOSURE: GW CONTROLS: LAND TYPE:P

NAIC INFORMATION

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

ENFORCEMENT INFORMATION:

AGENCY: STATEDATE: 00/25/2000 TYPE: V3 Conversion Compliance Advisory

VIOLATION INFORMATION:

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 00/25/2000DETERMINED BY: S - STATE CITATION: RESOLVED: 00/02/2000 TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 3RESPONSIBLE: S - STATE DETERMINED: 00/25/2000DETERMINED BY: S - STATE CITATION: RESOLVED: 00/02/2000

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR										
SEARCH ID:	45	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53			
NAME: ADDRESS: CONTACT: SOURCE:	LINCOLN PLAT 777 UMATILLA DENVER CO 80 DENVER EPA			REV: ID1: ID2: STATUS: PHONE:	12/11/09 COD00707390 NLR	)1				
TYPE: GENERA	TORS - MANIFES	ST.								
	CTION INFORMA									
CA EVENT:97/1	5/1997 CA006 <i>A</i>	AC								
CA EVENT:97/3	0/1997 CA120	- RFI WORKPLAN MOD	IFICATION REQUEST	ED BY AGENCY						
CA EVENT:97/2 EXPECTED	8/1997 CA750N	NO - GROUNDWATER F	RELEASES CONTROL	LED DETERMINATION - UNA	ACCEPTABLE MIGR	RATION OF GW I	S OBSERVED OR			
CA EVENT:97/2	8/1997 CA725N	NO - CURRENT HUMAN	EXPOSURES UNDER	R CONTROL - NOT UNDER C	CONTROL					
CA EVENT:97/2	8/1997 CA225Y	E - STABILIZATION ME	ASURES EVALUATIO	N - FACILITY IS AMENABLE	TO STABILIZATION	I ACTIVITY				
CA EVENT:97/2	8/1997 CA110	- RFI WORKPLAN RECE	IVED							
CA EVENT:97/2	8/1997 CA100	- RFI IMPOSITION								
CA EVENT:97/2	8/1997 CA075L	O - CA PRIORITIZATIO	N - FACILITY OR ARE	A WAS ASSIGNED A LOW C	ORRECTIVE ACTIO	N PRIORITY				
CA EVENT:97/2	6/1997 CA814A	AS.								
CA EVENT:97/1	5/1997 CA077N	Μ								
CA EVENT:97/1	5/1997 CA075N	ME - CA PRIORITIZATIO	N - FACILITY OR ARE	EA WAS ASSIGNED A MEDIL	M CORRECTIVE AC	CTION PRIORITY				
CA EVENT:97/1	5/1997 CA060	- NOTICE OF CONTAN	INATION							
CA EVENT:97/1	2/1997 CA811 <i>A</i>	AS .								
CA EVENT:97/1	5/1997 CA070Y	'E - DETERMINATION (	OF NEED FOR AN RF	I - RFI IS NECESSARY						
CA EVENT:98/3	1/1998 CA270	- CMS WORKPLAN MO	DIFICATION REQUES	STED BY AGENCY						
CA EVENT:98/2	9/1998 CA150	- RFI WORKPLAN APPR	OVED							
CA EVENT:98/2	2/1998 CA190	- RFI REPORT RECEIVED	)							
CA EVENT:98/2	0/1998 CA260	- CMS WORKPLAN REC	EIVED							
CA EVENT:98/0	1/1998 CA600	- STABILIZATION MEAS	URES IMPLEMENTED	)						
		- STABILIZATION CONS								
		- RFI SUPPLEMENTAL II	NFORMATION REQU	ESTED BY AGENCY						
CA EVENT:98/0	4/1998 CA814A	AS .								

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

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1.	٠.	I١	$\boldsymbol{\neg}$	ıv		ı١

REV:

ID1:

PHONE:

12/11/09

COD007073901

**SEARCH ID:** 45 DIST/DIR: 0.20 NE **ELEVATION:** 5206 MAP ID: 53

NAME: LINCOLN PLATING COMPANY ADDRESS:

777 UMATILLA ST

DENVER CO 80204

**DENVER** STATUS: NLR

CONTACT:

SOURCE: EPA

CA EVENT:99/26/1999 CA816

CA EVENT:00/19/2000 CA160 - RFI SUPPLEMENTAL INFORMATION RECEIVED

CA EVENT:00/29/2000 CA155 - RFI SUPPLEMENTAL INFORMATION REQUESTED BY AGENCY

CA EVENT:02/04/2002 CA260 - CMS WORKPLAN RECEIVED

CA EVENT:02/14/2002 CA100 - RFI IMPOSITION

CA EVENT:02/15/2002 CA300 - CMS WORKPLAN APPROVED

CA EVENT:02/15/2002 CA400 - CA400-REMEDY DECISION

CA EVENT:02/15/2002 CA450 - CORRECTIVE MEASURES DESIGN APPROVED

CA EVENT:06/26/2006 CA831OM

CA EVENT:06/12/2006 CA834OM

CA EVENT:07/15/2007 CA999RM - CORRECTIVE ACTION PROCESS TERMINATED - REMEDIAL ACTIVITIES COMPLETED

CA EVENT:07/09/2007 CA831OM

CA EVENT:07/15/2007 CA834OM

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste D002 - Corrosive waste D007 - Chromium

D008 - Lead
F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends

containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F006 - Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	FINDS										
SEARCH ID:	95	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53				
NAME:	CAI TECHNOLO	OGIES		REV:							
ADDRESS:	777 UMATILLA			ID1:	COD007073901						
	DENVER CO 80 DENVER	0204		ID2: STATUS:							
CONTACT:	DLINVER			PHONE:							
SOURCE:											

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

REV:

PHONE:

10/25/11

**SEARCH ID:** 101 **DIST/DIR:** 0.20 NE **ELEVATION:** 5206 **MAP ID:** 53

NAME: LINCOLN PLATING COMPANY DENVER CENTRAL ADDRESS: 777 UMATILLA ST

 777 UMATILLA ST
 ID1:
 110000466790

 DENVER CO 80204
 ID2:
 NEI2863

 DENVER
 STATUS:
 FRS

CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803100096 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ICISPROGRAM ID:50971 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:NEIPROGRAM ID:NEI2863 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:NCDBPROGRAM ID:I08#19950322N8006 1 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RCRAINFOPROGRAM ID:COD007073901 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:TRISPROGRAM ID:80204CTCHN777UM FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ECOMAPPROGRAM ID:COM000000223 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:BRPROGRAM ID:COD007073901 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION
SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**TRIS SEARCH ID:** 128 DIST/DIR: 0.20 NE **ELEVATION:** 5206 MAP ID: 53 NAME: LINCOLN PLATING CO. REV: ADDRESS: 777 UMATILLA ST ID1: COD007073901 DENVER CO 80204 ID2: 80204CTCHN777UM DENVER STATUS: OPEN BRAD DAVID PHONE: CONTACT: 3035348161 SOURCE:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

IAME: LINCOLN PLATING CO DENVER CENTRAL ID1: 80204CTCHN777UM ID2: PNER CO 80204 ID2: STATUS: OPEN STEELINFORMATION SIC INFORMATION  SIC INFORMATION  SIC INFORMATION  REPORTED INFORMATION  REPORTED INFORMATION  REPORTED INFORMATION  REPORTED INFORMATION  REPORTED INFORMATION  1998 BRAD DAVID3035348161  1999 SEND DAVID3035348161	NAME: LINCOLN PLATING CO DENVER CENTRAL ADDRESS: 777 UMATILLA ST DENVER CO 80204 DENVER CO 9PEN 3035348161 DENVER CO 80204					TRIS			
DDRESS:	ADDRESS: 77 MATILLA ST DENVER CO 80204 ID2: 5TATUS: OPEN CONTACT: ROB JOHNSTON PHONE: 3035348161  SOURCE: EPA	SEARCH ID:	129	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53
SIC INFORMATION  3462 NA - 3479 3441 3471 3471  REPORTED INFORMATION  REPORTING YEAR:CONTACT PERSON:CONTACT PHONE:  1987BRAD DAVID3035348161  1998BRAD DAVID3035348161  1990BRAD DAVID3035348161  1991BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1993BRAD DAVID3035348161  1995BRAD DAVID3035348161  1995BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997JOE TYNAN4024723671  1998RON BIRELY4025348161  1998RON BIRELY4025348161  1999RON BIRELY3035348161	SIC INFORMATION  3462 NA- 3477 3441  3477 3441  REPORTED INFORMATION  REPORTING YEAR:CONTACT PERSON:CONTACT PHONE:  1987BRAD DAVID3035348161  1998BRAD DAVID3035348161  1991BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1993BRAD DAVID3035348161  1994BRAD DAVID3035348161  1995BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1998RON BIRELY4025348161  1998RON BIRELY4025348161  1999RON BIRELY3035348161  1999RON BIRELY3035348161  1999RON BIRELY3035348161	NAME: ADDRESS: CONTACT: SOURCE:	777 UMATILLA ST DENVER CO 802 DENVER ROB JOHNSTON	T 04	NTRAL	ID1: ID2: STATUS:	80204CTCH OPEN		
SIC INFORMATION  3462 NA - 3479 3441 3471 3471  REPORTED INFORMATION  REPORTING YEAR:CONTACT PERSON:CONTACT PHONE:  1987BRAD DAVID3035348161  1998BRAD DAVID3035348161  1990BRAD DAVID3035348161  1991BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1993BRAD DAVID3035348161  1995BRAD DAVID3035348161  1995BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997JOE TYNAN4024723671  1998RON BIRELY4025348161  1998RON BIRELY4025348161  1999RON BIRELY3035348161	SIC INFORMATION  3462 NA- 3477 3441  3477 3441  REPORTED INFORMATION  REPORTING YEAR:CONTACT PERSON:CONTACT PHONE:  1987BRAD DAVID3035348161  1998BRAD DAVID3035348161  1991BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1993BRAD DAVID3035348161  1994BRAD DAVID3035348161  1995BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1997BRAD DAVID3035348161  1998RON BIRELY4025348161  1998RON BIRELY4025348161  1999RON BIRELY3035348161  1999RON BIRELY3035348161  1999RON BIRELY3035348161	SITE INFORMA	ATION						
3462 NA - 3479 3441 3471  REPORTED INFORMATION  REPORTING YEAR:CONTACT PERSON:CONTACT PHONE:  1987BRAD DAVID3035348161  1990BRAD DAVID3035348161  1991BRAD DAVID3035348161  1992BRAD DAVID3035348161  1992BRAD DAVID3035348161  1993BRAD DAVID3035348161  1994BRAD DAVID3035348161  1995BRAD DAVID3035348161  1995BRAD DAVID3035348161  1995BRAD DAVID3035348161  1995BRAD DAVID3035348161  1999FRON BIRELY3035348161  1997JOE TYNAN4024723671  1998RON BIRELY3035348161  1999RON BIRELY3035348161	3462 NA-3 3479 3441 3471  REPORTED INFORMATION REPORTING YEAR:CONTACT PERSON:CONTACT PHONE: 1987BRAD DAVID3035348161 1989BRAD DAVID3035348161 1999BRAD DAVID3035348161 1992BRAD DAVID3035348161 1992BRAD DAVID3035348161 1992BRAD DAVID3035348161 1994BRAD DAVID3035348161 1994BRAD DAVID3035348161 1995BRAD DAVID3035348161 1997BRAD DAVID3035348161 1997BRAD DAVID3035348161 1997BRAD DAVID3035348161 1999BRAD DAVID3035348161 1999RON BIRELY4025348161 1999RON BIRELY4025348161 1999RON BIRELY3035348161 1999RON BIRELY3035348161								
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1995BRAD DAVID3035348161 1996RUSSEL ROHL3035348161 1997JOE TYNAN4024723671 1997JOE TYNAN4024753671 1998RON BIRELY4025348161 1998RON BIRELY3035348161 1999RON BIRELY3035348161	1995BRAD DAVID3035348161  1996RUSSEL ROHL3035348161  1997JOE TYNAN4024723671  1997JOE TYNAN4024753671  1998RON BIRELY4025348161  1999RON BIRELY3035348161  1999RON BIRELY3035348161  1999RON BIRELY4025348161  2000ROB JOHNSTON3035348161								
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1997 JOE TYNAN4024753671 1998 RON BIRELY4025348161 1998 RON BIRELY3035348161 1999 RON BIRELY3035348161	1997JOE TYNAN4024753671  1998RON BIRELY4025348161  1998RON BIRELY3035348161  1999RON BIRELY3035348161  1999RON BIRELY4025348161  2000ROB JOHNSTON3035348161								
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1999RON BIRELY3035348161	1999RON BIRELY3035348161 1999RON BIRELY4025348161 2000ROB JOHNSTON3035348161								
	1999RON BIRELY4025348161 2000ROB JOHNSTON3035348161								
1777NON DINLL14025340101	2000ROB JOHNSTON3035348161								
	2001ROB JOHNSTON3035348161			1					
2001ROB JOHNSTON3035348161		2001ROB JOH	NSTON3035348161	1					

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**TRIS ELEVATION: SEARCH ID:** 129 DIST/DIR: 0.20 NE 5206 MAP ID: 53 NAME: LINCOLN PLATING CO. - DENVER CENTRAL REV: 2/25/10 ADDRESS: 777 UMATILLA ST ID1: 80204CTCHN777UM DENVER CO 80204 ID2: STATUS: **DENVER** OPEN PHONE: **ROB JOHNSTON** CONTACT: 3035348161 SOURCE: EPA

YEARCHEMICALONE TIME RELEASE QTY(LBS)

1987METHYL ETHYL KETONE

1987SODIUM HYDROXIDE (SOLUTION)

1989NITRIC ACID

1990NITRIC ACID

1991NITRIC ACID0

1992NITRIC ACID0

1993NITRIC ACID0

1994NITRIC ACID0

1994SULFURIC ACID (1994 AND AFTER ACID AEROSOLS ONLY)0

1995NITRATE COMPOUNDS0

1995NITRIC ACID0

1996NITRIC ACID0

1996NITRATE COMPOUNDS0

1996CHROMIUM0

1996PHOSPHORIC ACIDO

1997CHROMIUM COMPOUNDS(EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)1

1997NITRATE COMPOUNDS0

1997NITRIC ACID0

1997PHOSPHORIC ACIDO

1998NITRATE COMPOUNDS0

1998NITRIC ACID0

1998CHROMIUM COMPOUNDS(EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)60

1999NITRATE COMPOUNDS0

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				TRIS			
SEARCH ID:	129	DIST/DIR:	0.20 NE	ELEVATION:	5206	MAP ID:	53
NAME: ADDRESS:	LINCOLN PLATI 777 UMATILLA : DENVER CO 80 DENVER		NTRAL	REV: ID1: ID2: STATUS:	2/25/10 80204CTCH OPEN	N777UM	
CONTACT: SOURCE:	ROB JOHNSTO EPA	N		PHONE:	3035348161		

NITRIC ACID0

1999CHROMIUM COMPOUNDS(EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)0  $\,$ 2000CHROMIUM COMPOUNDS(EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)0

2000NITRATE COMPOUNDS0

2000NITRIC ACID0

2001NITRATE COMPOUNDS0

2001NITRIC ACIDO

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	FINDS									
SEARCH ID:	60	DIST/DIR:	0.20 SW	ELEVATION:	5261	MAP ID:	54			
NAME: ADDRESS:	COASTAL MAR 438 FEDERAL S DENVER CO 80 DENVER	ST.		REV: ID1: ID2: STATUS:	CO0000714873					
CONTACT: SOURCE:				PHONE:						

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

				FINDS			
SEARCH ID:	80	DIST/DIR:	0.20 SW	ELEVATION:	5261	MAP ID:	54
NAME: ADDRESS:	PESTER MARKE			REV: ID1:	10/25/11 110001437053		
, 22,120,	DENVER CO 80			ID2: STATUS:	2182111 FRS		
CONTACT: SOURCE:	EPA			PHONE:			

FACILITY REGISTRATION INFORMATION:

PROGRAM:EISPROGRAM ID:2182111 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:AIRS/AFSPROGRAM ID:0803101228 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:NEIPROGRAM ID:NEI1419 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 165 DIST/DIR: 0.20 SW **ELEVATION:** 5261 MAP ID: 54 NAME: TRIMER ENTERPRISES LLC REV: 04/24/12 ADDRESS: 438 FEDERAL BLVD ID1: 9517 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 20423 OWNER NAME: OWNER ADDRESS: 412 FEDERAL BLVD DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 1 - Unleaded Regular (RUL) TANK CAPACITY: 10000 TANK ID: 25303 TANK TAG: 9517-1

TANK TYPE: UST TANK CONTENTS: 3 - Unleaded Premium (PUL) TANK CAPACITY: 8000 TANK ID: 25304 TANK TAG: 9517-2

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 6000 TANK ID: 25305 TANK TAG: 9517-3

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=9517

Target Property: 6TH AVE DENVER, CO 80219 JOB: US 6

	LUST									
SEARCH ID:	232	DIST/DIR:	0.20 SW	ELEVATION:	5261	MAP ID:	54			
NAME:	TRIMER ENTER	PRISES LLC		REV:	04/24/12					
ADDRESS:	438 FEDERAL B	SLVD		ID1:	11458					
	DENVER CO 80	204		ID2:						
	DENVER			STATUS:	OPEN					
CONTACT:				PHONE:						
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Open LOG DATE: 7/8/2011 7:41:41 AM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=11458

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	99	DIST/DIR:	0.20 SE	ELEVATION:	5203	MAP ID:	55			
NAME:	JACKSON ICE	CREAM COMPANY		REV:						
ADDRESS:	400 YUMA ST			ID1:	COD983769274					
	DENVER CO 80	0204		ID2:						
	DENVER			STATUS:						
CONTACT:				PHONE:						
SOURCE:										

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

PHONE:

**SEARCH ID:** 100 **DIST/DIR:** 0.20 SE **ELEVATION:** 5203 **MAP ID:** 55

 NAME:
 JACKSON ICE CREAM COMPANY (KROGER)
 REV:
 10/25/11

 ADDRESS:
 400 YUMA ST
 ID1:
 110000466807

DENVER CO 80204 ID2: 80204JCKSN400YU

DENVER STATUS: FRS

CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803101690 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:TRISPROGRAM ID:80204JCKSN400YU FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ICISPROGRAM ID:600022010 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RMPPROGRAM ID:100000131911 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**TRIS SEARCH ID:** 126 DIST/DIR: 0.20 SE **ELEVATION:** 5203 MAP ID: 55 NAME: JACKSON & CO. INC. REV: ADDRESS: 400 YUMA ST ID1: COD983769274 DENVER CO 80204 ID2: 80204JCKSN400YU DENVER STATUS: OPEN PHONE: CONTACT: GARY R. GREAVES 3035341922 SOURCE:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

	TRIS								
SEARCH ID:	127	DIST/DIR:	0.20 SE	ELEVATION:	5203	MAP ID:	55		
NAME:	JACKSON ICE	CREAM		REV:	2/25/10				
ADDRESS:	400 YUMA ST			ID1:	80204JCKS	N400YU			
	DENVER CO 80	)204		ID2:					
	DENVER			STATUS:	OPEN				
CONTACT:	MARK DAY			PHONE:	3035341922	2			
SOURCE:	EPA								

SITE\_INFORMATION

SIC INFORMATION

2024

REPORTED INFORMATION

REPORTING YEAR: CONTACT PERSON: CONTACT PHONE:

1988PAUL BROADHEAD3035341922

1989HEIDI STEGEMAN3035341922

1990GARY R. GREAVES3035341922

1991GARY R. GREAVES3035341922

1992GARY R. GREAVES3035341922

1993GARY R. GREAVES3035341922

1994MARK DAY3035341922

1995MARK DAY3035341922

1996MARK DAY3035341922

1997MARK DAY3035341922

1998MARK DAY3035341922

1999MARK DAY3035341922

2003MARK DAY3035341922

YEARCHEMICALONE TIME RELEASE QTY(LBS)

1988AMMONIA

1989AMMONIA

1990AMMONIA

1991AMMONIA0

1992AMMONIA0

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

TRIS									
SEARCH ID:	127	DIST/DIR:	0.20 SE	ELEVATION:	5203	MAP ID:	55		
NAME:	JACKSON ICE	CREAM		REV:	2/25/10				
ADDRESS:	400 YUMA ST			ID1:	80204JCKS1	N400YU			
	DENVER CO 80	)204		ID2:					
	DENVER			STATUS:	OPEN				
CONTACT:	MARK DAY			PHONE:	3035341922	2			
SOURCE:	EPA								

AMMONIA0

1994AMMONIA0

1995AMMONIA0

1996AMMONIA0

1997AMMONIA0

1998AMMONIA0 1999AMMONIA0

2003AMMONIA8700

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 171 DIST/DIR: 0.20 SE **ELEVATION:** 5204 MAP ID: 56 NAME: MONFORT FOOD DISTRIBUTING CO REV: 04/24/12 ADDRESS: 415 YUMA ST ID1: 832 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT:

OWNER INFORMATION OWNER ID NUMBER: 3744 OWNER NAME: MONFORT FOOD DIST; OWNER ADDRESS: 415 YUMA DENVER CO 80205

COSTIS

TANK INFORMATION

SOURCE:

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 999999999 TANK ID: 2475 TANK TAG: 832-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 999999999 TANK ID: 2476 TANK TAG: 832-2

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=832$ 

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

LUST								
SEARCH ID:	240	DIST/DIR:	0.20 SE	ELEVATION:	5221	MAP ID:	57	
NAME:	5TH & OSAGE			REV:	12/01/08			
ADDRESS:	5TH & OSAGE			ID1:	LTT-86			
	DENVER CO			ID2:				
	DENVER			STATUS:	UNKNOWN			
CONTACT:				PHONE:				
SOURCE:	CDPHE							

LUST TRUST TANK SITES
SOURCE OF DATA: From an old CDPHE list of locations where tank leaks were suspected and LUST Trust funds were used in an effort to identify the source. Often, the source was found nearby and was entered in the LUST database (now COSTIS).
This listing not entered into COSTIS back when CDPHE transferred responsibility for tank leaks to OPS. Few people at OPS know of this old CDPHE list, and any associated files are thought to have been disposed of or misplaced.

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRAGN** 

PHONE:

**SEARCH ID:** 29 **DIST/DIR:** 0.21 NE **ELEVATION:** 5206 **MAP ID:** 58

 NAME:
 VISION GRAPHICS INC
 REV:
 1/10/12

 ADDRESS:
 750 CANOSA CT
 ID1:
 COR000207530

DENVER CO 80204

DENVER STATUS: VGN

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: PETER CARRANZA BOEING DR LOVELAND CO 80538

PHONE: 9706799118

OWNER NAME:KEYLINE INVESTMENT CO OWNER TYPE:P-PRIVATE OPERATOR:KEYLINE GRAPHICS INC OPERATOR TYPE:P-PRIVATE MAILING ADDRESS:5610 BOEING DR LOVELAND, CO UNIVERSE INFORMATION:

RECEIVED DATE:09/29/2009

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FURL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

32311 - PRINTING

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

 RCRAGN

 29
 DIST/DIR:
 0.21 NE
 ELEVATION:
 5206
 MAP ID:
 58

 VISION GRAPHICS INC
 REV:
 1/10/12

 750 CANOSA CT
 ID1:
 COR000207530

750 CANOSA CT ID1: COR000207530
DENVER CO 80204 ID2:

IVER CO 80204 IDZ:

DENVER STATUS: VGN
CONTACT: PHONE:

**SEARCH ID:** 

NAME:

ADDRESS:

SOURCE:

#### **ENFORCEMENT INFORMATION:**

EPA

AGENCY: STATEDATE: 03/18/2003 TYPE: V3 Conversion Compliance Advisory

AGENCY: STATEDATE: 07/01/2007 TYPE: COMPLIANCE ADVISORY

#### VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 3RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - MANIFEST

VIOLATION NUMBER: 4RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004
TYPE: GENERATORS - PRE-TRANSPORT

VIOLATION NUMBER: 5RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - PRE-TRANSPORT

VIOLATION NUMBER: 6RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - PRE-TRANSPORT

VIOLATION NUMBER: 7RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - PRE-TRANSPORT

VIOLATION NUMBER: 8RESPONSIBLE: S - STATE DETERMINED: 03/18/2003DETERMINED BY: S - STATE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRAGN** 29 **ELEVATION: SEARCH ID:** DIST/DIR: 0.21 NE 5206 MAP ID: 58 NAME: VISION GRAPHICS INC REV: 1/10/12 ADDRESS: 750 CANOSA CT ID1: COR000207530 DENVER CO 80204 DENVER STATUS: VGN PHONE: CONTACT: SOURCE: EPA

CITATION: RESOLVED: 04/02/2004 TYPE: GENERATORS - PRE-TRANSPORT

VIOLATION NUMBER: 9RESPONSIBLE: S - STATE DETERMINED: 07/01/2007 DETERMINED BY: S - STATE CITATION: RESOLVED: 07/01/2007 TYPE: GENERATORS - PRE-TRANSPORT

HAZARDOUS WASTE INFORMATION:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR									
SEARCH ID:	39	DIST/DIR:	0.21 NE	ELEVATION:	5206	MAP ID:	58		
NAME:	KEYLINE GRAPHICS	S		REV:	2/9/04				
ADDRESS:	750 CANOSA CT DENVER CO 80204			ID1: ID2:	COR000207530				
	DENVER			STATUS:	NLR				
CONTACT:				PHONE:					
SOURCE:	EPA								

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** 73 DIST/DIR: 0.21 NE **ELEVATION:** 5206 MAP ID: 58

NAME: KEYLINE GRAPHICS INCORPORATED REV: 10/25/11 ADDRESS: 750 CANOSA CT 110001397532 ID1: DENVER CO 80204 0803101537

**DENVER** STATUS:  $\mathsf{FRS}$ 

CONTACT: PHONE:

FACILITY REGISTRATION INFORMATION:

EPA

PROGRAM:AIRS/AFSPROGRAM ID:0803101537 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:EISPROGRAM ID:4442011 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ICISPROGRAM ID:50648 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM: NEIPROGRAM ID: NEI4469 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RCRAINFOPROGRAM ID:COR000207530 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION

SOURCE:

NIAC INFORMATION

811490 336612 - BOAT BUILDING 812320

3732 - BOAT BUILDING AND REPAIRING 2752 - COMMERCIAL PRINTING, LITHOGRAPHIC 5541 - GASOLINE SERVICE STATIONS

7212 - GARMENT PRESSING, AND AGENTS FOR LAUNDRIES AND DRYCLEANERS

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS									
SEARCH ID:	74	DIST/DIR:	0.21 NE	ELEVATION:	5206	MAP ID:	58		
NAME: ADDRESS:	KEYLINE GRAPHICS, INC 750 CANOSA CT DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	CO0001240597				
CONTACT: SOURCE:				PHONE:					

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 104 DIST/DIR: 0.21 NE **ELEVATION:** 5222 MAP ID: 59 NAME: DENVER & RIO GRANDE WESTERN RAILROAD REV: ADDRESS: 8TH & OSAGE ID1: COD000706770 DENVER CO 80217 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS SEARCH ID:** 115 DIST/DIR: 0.21 SE **ELEVATION:** 5223 MAP ID: 60 RIO GRANDE CO RESIDENTIAL PRODUCTS DIV NAME: REV: ADDRESS: 500 OSAGE ST ID1: CO0000756841 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE:

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**FINDS** 

PHONE:

**SEARCH ID:** 116 DIST/DIR: 0.21 SE **ELEVATION:** 5223 MAP ID: 60

NAME: RIO GRANDE CO RESIDENTIAL PRODCTS DIV ADDRESS:

REV: 10/25/11 500 OSAGE ST ID1: 110001397104 DENVER CO 80204 4442311 DENVER STATUS:  $\mathsf{FRS}$ 

CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803101540 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:EISPROGRAM ID:4442311 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:NEIPROGRAM ID:NEI3714 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**UST** 

**SEARCH ID:** 182 DIST/DIR: 0.21 SE **ELEVATION:** 5223 MAP ID: 60

NAME: RIO GRANDE CO RESIDENTIAL PRODUCTS DIV

REV: 04/24/12 ADDRESS: 500 OSAGE ST ID1: 7940

DENVER CO 80204 STATUS: DENVER

PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 4492 OWNER NAME: OWNER ADDRESS: 201 SANTA FE DR

DENVER CO 80223

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 999999999 TANK ID: 20790 TANK TAG: 7940-1

TANK TYPE: UST

TANK CONTENTS: Z Unknown TANK CAPACITY: 999999999 TANK ID: 20791

TANK TAG: 7940-2

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=7940

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	244	DIST/DIR:	0.21 SE	ELEVATION:	5223	MAP ID:	60			
NAME:	RIO GRANDE C	O RESIDENTIAL PROD	UCTS DIV	REV:	04/24/12					
ADDRESS:	500 OSAGE ST			ID1:	9337					
	DENVER CO 80	204		ID2:						
	DENVER			STATUS:	CLOSED					
CONTACT:				PHONE:						
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Closed LOG DATE: 9/15/2003 9:17:25 AM

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 152 DIST/DIR: 0.21 NE **ELEVATION:** 5205 MAP ID: 61 NAME: DELTA DRY WALL INC REV: 04/24/12 ADDRESS: 2605 W 7TH AVE ID1: 5251 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 1737 OWNER NAME: DELTA DRY WALL INC; OWNER ADDRESS: 2605 W 7TH AVE DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 14472 TANK TAG: 5251-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=5251

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	202	DIST/DIR:	0.21 NE	ELEVATION:	5205	MAP ID:	61			
NAME:	DELTA DRY WA			REV:	04/24/12					
ADDRESS:	2605 W 7TH AV DENVER CO 80			ID1: ID2:	3722					
CONTACT:	DENVER			STATUS: PHONE:	CLOSED					
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Closed LOG DATE: 3/13/1990

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SWL ELEVATION:** SEARCH ID: 142 DIST/DIR: 0.22 SE MAP ID: 62 NAME: KNOWN LANDFILL REV: 12/01/08 ADDRESS: AT 4TH & VALLEJO ST ID1: 131 00070-0000675 DENVER CO DENVER STATUS: HISTORIC PHONE: CONTACT:

COLORADO HISTORIC LANDFILLS

CDPHE/COUNTY

SOURCE:

 ${\sf STATUS}: {\sf Denver}\;{\sf CO}\;{\sf Old}\;{\sf Fill}\;{\sf Sites}$ 

TEMPORARILY CLOSED IN 1960 CONFIDENCE IN THIS INFO: LOW

FIII- DOMESTIC REFUSE: YES CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: NO

CONFIDENCE IN THIS INFO: LOW

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID: ELEVATION:** MAP ID: 155 DIST/DIR: 0.22 NW 5237 63 NAME: FEDERAL AUTO & WRECKING CO REV: 04/24/12 ADDRESS: 750 FEDERAL BLVD ID1: 12382 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 16527 OWNER NAME: GREENSPOON; MERLE OWNER ADDRESS: 750 FEDERAL BLVD DENVER CO 80204

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=12382

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 210 DIST/DIR: 0.22 NW **ELEVATION:** MAP ID: 5237 63 NAME: FEDERAL AUTO & WRECKING CO REV: 04/24/12 ADDRESS: 750 FEDERAL BLVD ID1: 2446 DENVER CO 80204 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 7/15/1997

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST											
SEARCH ID:	211	DIST/DIR:	0.22 NW	ELEVATION:	5237	MAP ID:	63					
NAME:	FEDERAL AUTO	) & WRECKING CO		REV:	04/24/12							
ADDRESS:	750 FEDERAL E	BLVD		ID1:	2450							
	DENVER CO 80	)204		ID2:								
	DENVER			STATUS:	CLOSED							
CONTACT:				PHONE:								
SOURCE:	COSTIS											

LUST INFORMATION STATUS: Closed LOG DATE: 11/24/1992

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	61	DIST/DIR:	0.23 SW	ELEVATION:	5253	MAP ID:	64			
NAME: ADDRESS:	DECATUR 400 DECATUR ST DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	CO0000310185					
CONTACT: SOURCE:				PHONE:						

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

FINDS

**SEARCH ID:** 62 **DIST/DIR:** 0.23 SW **ELEVATION:** 5253 **MAP ID:** 64

 NAME:
 DECATUR
 REV:
 10/25/11

 ADDRESS:
 400 DECATUR ST
 ID1:
 110011677293

DENVER CO 80204 ID2: 108#19920803CO004 1

DENVER STATUS: FRS

CONTACT: PHONE:

FACILITY REGISTRATION INFORMATION:

EPA

PROGRAM:NCDBPROGRAM ID:I08#19920803CO004 1

FEDERAL FACILITY: TRIBAL LAND:

SOURCE:

SIC INFORMATION

NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** 79 **DIST/DIR:** 0.23 SE **ELEVATION: MAP ID:** 65

 NAME:
 PARAGON REPRODUCTIONS INC
 REV:
 10/25/11

 ADDRESS:
 2500 WEST 4TH AVE
 ID1:
 110038622005

 DENVER CO 80219
 ID2:
 0803100406

 DENVER CO 80219
 ID2:
 0803100406

 DENVER
 STATUS:
 FRS

CONTACT: PHONE: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803100406 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION
SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 174 DIST/DIR: 0.23 NE **ELEVATION:** 5205 MAP ID: 66 NAME: NEWSTROM-DAVIS CONSTRUCTION CO REV: 04/24/12 ADDRESS: 2000 W 8TH AVE ID1: 10840 DENVER CO 80204 DENVER STATUS: PHONE: CONTACT:

OWNER INFORMATION OWNER ID NUMBER: 3911 OWNER NAME: NEWSTROM DAVIS CONSTRUCTION; OWNER ADDRESS: 2000 W 8TH AVE DENVER CO 80204

COSTIS

TANK INFORMATION

SOURCE:

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 500 TANK ID: 29562 TANK TAG: 10840-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=10840

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	224	DIST/DIR:	0.23 NE	ELEVATION:	5205	MAP ID:	66			
NAME:		AVIS CONSTRUCTION	СО	REV:	04/24/12					
ADDRESS:	2000 W 8TH AV DENVER CO 80			ID1: ID2:	5137					
	DENVER			STATUS:	CLOSED					
CONTACT:				PHONE:						
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Closed LOG DATE: 9/8/1992

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 153 0.24 NW 5236 67 NAME: DENVER PUBLIC SCHOOL REV: ADDRESS: 2880 W 8TH AVE ID1: 14101 DENVER CO 80204 ID2: DENVER STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION
OWNER ID NUMBER: 16913
OWNER NAME: DENVER PUBLIC SCHOOL
OWNER ADDRESS: 2880 W 8TH AVE TRANSPORTATION YARD
DENVER CO 80204

TANK INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 204 DIST/DIR: 0.24 NW **ELEVATION:** MAP ID: 67 5236 NAME: DENVER PUBLIC SCHOOL REV: 04/24/12 ADDRESS: 2880 W 8TH AVE ID1: 8548 DENVER CO 80204 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 5/25/2001

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	205	DIST/DIR:	0.24 NW	ELEVATION:	5236	MAP ID:	67			
NAME: ADDRESS:	2880 W 8TH AV	=	PRTATION YARD	REV: ID1:	04/24/12 4422					
CONTACT: SOURCE:	DENVER CO 802 DENVER COSTIS	204		ID2: STATUS: PHONE:	OPEN					

LUST INFORMATION STATUS: Open LOG DATE: 8/31/1990

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

RCRAGN

PHONE:

**SEARCH ID:** 22 **DIST/DIR:** 0.25 NE **ELEVATION:** 5204 **MAP ID:** 68

 NAME:
 AB DICK COMPANY
 REV:
 1/10/12

 ADDRESS:
 2500 W 8TH AVE
 ID1:
 COR000204313

DENVER CO 80204

DENVER STATUS: VGN

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: CARLA GORMAN

W 8TH AVE STE B DENVER CO 80204

PHONE: 3035344848

OWNER NAME:AB DICK COMPANY OWNER TYPE:P-PRIVATE OPERATOR:AB DICK COMPANY OPERATOR\_TYPE:P-PRIVATE MAILING ADDRESS:2500 W 8TH AVE STE B DENVER, CO 80204 UNIVERSE INFORMATION:

RECEIVED DATE:09/03/2004

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO

CORRECTIVE ACTION WORKLOAD:N - NO GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FURL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

42384 - INDUSTRIAL SUPPLIES MERCHANT WHOLESALERS

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRAGN										
SEARCH ID:	22	DIST/DIR:	0.25 NE	ELEVATION:	5204	MAP ID:	68			
NAME:	AB DICK COMPANY			REV:	1/10/12					
ADDRESS:	2500 W 8TH AVE			ID1:	COR000204313					
	DENVER CO 80204			ID2:						
	DENVER			STATUS:	VGN					
CONTACT:				PHONE:						
SOURCE:	EPA									

- GENERAL WAREHOUSING AND STORAGE

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRAGN** 

PHONE:

**SEARCH ID:** 26 **DIST/DIR:** 0.25 NE **ELEVATION:** 5204 **MAP ID:** 68

 NAME:
 MILWAUKEE ELECTRIC TOOL CORP
 REV:
 1/10/12

 ADDRESS:
 2500 W 8TH AVE
 ID1:
 COR000210161

DENVER CO 80204

DENVER STATUS: VGN

CONTACT: SOURCE: EPA

\_\_\_\_\_

SITE INFORMATION

CONTACT INFORMATION: JERRY JORDAN W 8TH AVE UNIT E DENVER CO 80204

PHONE: 3039221165

OWNER NAME:CHASE GROUP OWNER TYPE:P-PRIVATE OPERATOR:MILWAUKEE ELECTRIC TOOL CORP OPERATOR\_TYPE:P-PRIVATE MAILING ADDRESS:2500 W 8TH AVE UNIT E DENVER, C UNIVERSE INFORMATION:

RECEIVED DATE:09/29/2008

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FURL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

333991 - POWER-DRIVEN HANDTOOL MANUFACTURING

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRAGN										
SEARCH ID:	26	DIST/DIR:	0.25 NE	ELEVATION:	5204	MAP ID:	68			
NAME:	MILWAUKEE EL	LECTRIC TOOL CORP		REV:	1/10/12					
ADDRESS:	2500 W 8TH AV	/E		ID1:	COR000210161					
	DENVER CO 80	)204		ID2:						
	DENVER			STATUS:	VGN					
CONTACT:				PHONE:						
SOURCE:	EPA									

- GENERAL AUTOMOTIVE REPAIR

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR										
SEARCH ID:	35	DIST/DIR:	0.25 NE	ELEVATION:	5204	MAP ID:	68			
NAME:	AB DICK COMPANY			REV:	10/8/02					
ADDRESS:	2500 W 8TH AVE			ID1:	COR000204313					
	DENVER CO 80204			ID2:						
	DENVER			STATUS:	NLR					
CONTACT:	CARLA GORMAN			PHONE:	3035344848					
SOURCE:	EPA									

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

FINDS										
SEARCH ID:	56	DIST/DIR:	0.25 NE	ELEVATION:	5204	MAP ID:	68			
NAME: ADDRESS:	AB DICK COMPAI	NY		REV: ID1:	10/25/11 110022513537					
ADDRESS.	DENVER CO 8020 DENVER	)4		ID2: STATUS:	COM00000155 FRS	4				
CONTACT: SOURCE:	EPA			PHONE:	110					

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COR000204313 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:ECOMAPPROGRAM ID:COM000001554 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS										
SEARCH ID:	78	DIST/DIR:	0.25 NE	ELEVATION:	5204	MAP ID:	68			
NAME: ADDRESS:	MILWAUKEE E 2500 W 8TH AV DENVER CO 80 DENVER			REV: ID1: ID2: STATUS:	10/25/11 110020745096 COR000210161 FRS					
CONTACT: SOURCE:	EPA			PHONE:						

FACILITY REGISTRATION INFORMATION:

PROGRAM:RCRAINFOPROGRAM ID:COR000210161 FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION SIC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRANLR** 

PHONE:

**SEARCH ID:** 37 **DIST/DIR:** 0.25 NE **ELEVATION:** 5207 **MAP ID:** 69

 NAME:
 FLINT INK CORP
 REV:
 1/10/12

 ADDRESS:
 2600 W 8TH AVE
 ID1:
 COD007068430

DENVER CO 80204

DENVER STATUS: NLR

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: STEVE BARKER 2600 W 8TH AVE DENVER CO 80204

PHONE: 3134587500

OWNER NAME:EDGAR B FLINT PRESIDENT OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:2600 W 8TH AVE DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:04/13/2005

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

RCRANLR										
SEARCH ID:	37	DIST/DIR:	0.25 NE	ELEVATION:	5207	MAP ID:	69			
NAME: ADDRESS:	FLINT INK CORP 2600 W 8TH AVE DENVER CO 80204			REV: ID1: ID2:	1/10/12 COD007068430	)				
CONTACT: SOURCE:	DENVER EPA			STATUS: PHONE:	NLR					

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

FINDS									
SEARCH ID:	66	DIST/DIR:	0.25 NE	ELEVATION:	5207	MAP ID:	69		
NAME:	FLINT INK CORP			REV:					
ADDRESS:	2600 W 8TH AVE			ID1:	COD007068430				
	DENVER CO 80204			ID2:					
	DENVER			STATUS:					
CONTACT:				PHONE:					
SOURCE:									

DETAILS NOT AVAILABLE

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

FINDS									
SEARCH ID:	67	DIST/DIR:	0.25 NE	ELEVATION:	5207	MAP ID:	69		
NAME: ADDRESS:	FLINT INK CORP 2600 W 8TH AVE DENVER CO 80204 DENVER			REV: ID1: ID2: STATUS:	10/25/11 110001435448 0803100505 FRS				
CONTACT: SOURCE:	EPA			PHONE:					

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803100505 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:RCRAINFOPROGRAM ID:COD007068430 FEDERAL FACILITY: TRIBAL LAND:

SIC INFORMATION
NIAC INFORMATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** 156 DIST/DIR: 0.25 NE **ELEVATION:** 5207 MAP ID: 69 NAME: FLINT INK CORP REV: 04/24/12 ADDRESS: 2600 W 8TH AVE ID1: 10316 DENVER CO 80204 STATUS: DENVER PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 2305 OWNER NAME: FLINT INK CORP; OWNER ADDRESS: 25111 GLENDALE AVE REDFORD MI 48239

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 10000 TANK ID: 27932 TANK TAG: 10316-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 10000 TANK ID: 27933 TANK TAG: 10316-2

 $LINK: \ http://cost is.cdle.state.co.us/facility.asp?h\_id=10316$ 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**FINDS** 

**SEARCH ID:** 103 **DIST/DIR:** 0.25 SE **ELEVATION:** 5223 **MAP ID:** 70

 NAME:
 CALIFORNIA EXPANDED METALS CO
 REV:
 10/25/11

 ADDRESS:
 490 OSAGE ST
 ID1:
 110022448270

DENVER CO 80204 **ID2:** 80204CLFRN49SAG

DENVER STATUS: FRS
CONTACT: PHONE:

CONTACT: SOURCE: EPA

FACILITY REGISTRATION INFORMATION:

PROGRAM:AIRS/AFSPROGRAM ID:0803101941 FEDERAL FACILITY: TRIBAL LAND:

PROGRAM:TRISPROGRAM ID:80204CLFRN49SAG FEDERAL FACILITY: TRIBAL LAND:

NIAC INFORMATION
SIC INFORMATION

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**TRIS** 

ID2:

**SEARCH ID:** 130 DIST/DIR: 0.25 SE **ELEVATION:** 5223 MAP ID: 70

NAME: CALIFORNIA EXPANDED METALS CO

REV: 1/4/12 ADDRESS: 490 OSAGE ST ID1: 80204CLFRN49SAG

> DENVER CO 80204 DENVER

STATUS: PHONE:

CONTACT: SOURCE: EPA

SITE\_INFORMATION SIC INFORMATION

NA -3499

REPORTED INFORMATION

REPORTING YEAR:CONTACT PERSON:CONTACT PHONE:

2004TIM DEVOS8007752362

2005TIM DEVOS8007752362

YEARCHEMICALONE TIME RELEASE QTY(LBS)

2004LEAD

2005LEAD

OFF SITE TREATMENT LOCATION

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: 0.25 SE **ELEVATION:** MAP ID: 70 176 5223 NAME: CHAMPION FENCE CO REV: 04/24/12 ADDRESS: 490 OSAGE ST ID1: 12817 DENVER CO 80204 ID2: DENVER STATUS: PHONE: CONTACT: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 17701 OWNER NAME: UNKNOWN; OWNER ADDRESS: UNKNOWN ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=12817

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**UST SEARCH ID:** DIST/DIR: 0.25 SE **ELEVATION:** 5223 MAP ID: 70 185 NAME: SOUTHWEST PROPERTIES REV: ADDRESS: 490 OSAGE ST ID1: 6064 DENVER CO 80216 ID2: DENVER STATUS: CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 9999 OWNER NAME: UNKNOWN; OWNER ADDRESS: UNKNOWN ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	242	DIST/DIR:	0.25 SE	ELEVATION:	5223	MAP ID:	70		
NAME:	CHAMPION FE	NCE CO		REV:	04/24/12				
ADDRESS:	490 OSAGE ST			ID1:	1739				
	DENVER CO 80	204		ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 10/25/1991

**UST** 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

 SEARCH ID:
 160
 DIST/DIR:
 0.25 NW
 ELEVATION:
 5210
 MAP ID:

 NAME:
 L E RENNER SPORTS SURFACES
 REV:
 04/24/12

 ADDRESS:
 775 CANOSA CT
 ID1:
 1553

 775 CANOSA CT
 ID1:
 1553

 DENVER CO 80204
 ID2:

 DENVER
 STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 19070 OWNER NAME: OWNER ADDRESS: 775 CANOSA CT DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 10000 TANK ID: 4304 TANK TAG: 1553-1

TANK TYPE: UST TANK CONTENTS: 1 - Unleaded Regular (RUL) TANK CAPACITY: 10000 TANK ID: 4305 TANK TAG: 1553-2

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 12000 TANK ID: 4306 TANK TAG: 1553-3

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=1553

71

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	218	DIST/DIR:	0.25 NW	ELEVATION:	5210	MAP ID:	71		
NAME:	L E RENNER SP	ORTS SURFACES		REV:	04/24/12				
ADDRESS:	775 CANOSA C DENVER CO 80			ID1: ID2:	10965				
	DENVER			STATUS:	CLOSED				
CONTACT: SOURCE:	COSTIS			PHONE:					

LUST INFORMATION STATUS: Closed LOG DATE: 10/7/2009 1:10:42 PM

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**UST SEARCH ID:** 170 DIST/DIR: 0.25 NE **ELEVATION:** 5207 MAP ID: 72 NAME: HEB S SERVICE REV: 04/24/12 ADDRESS: 2214 W 8TH AVE ID1: 8102 DENVER CO 80204 STATUS: **DENVER** CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION OWNER ID NUMBER: 1941 OWNER NAME: PASTOR; DUANE OWNER ADDRESS: 2943 S VRAIN ST DENVER CO 80236

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 550 TANK ID: 21159 TANK TAG: 8102-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 550 TANK ID: 21160 TANK TAG: 8102-2

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 1000 TANK ID: 21161 TANK TAG: 8102-3

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 21162 TANK TAG: 8102-4

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=8102

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	213	DIST/DIR:	0.25 NE	ELEVATION:	5207	MAP ID:	72		
NAME: ADDRESS:	HEB S SERVICE 2214 W 8TH AVE DENVER CO 80204			REV: ID1: ID2:	04/24/12 2403				
CONTACT: SOURCE:	DENVER  COSTIS			STATUS: PHONE:	CLOSED				

LUST INFORMATION STATUS: Closed LOG DATE: 1/2/1990

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

LUST									
SEARCH ID:	192	DIST/DIR:	0.26 NW	ELEVATION:	5239	MAP ID:	73		
NAME:	8TH & FEDERAL			REV:	12/01/08				
ADDRESS:	8TH & FEDERAL			ID1:	LTT-90				
	DENVER CO			ID2:					
	DENVER			STATUS:	UNKNOWN				
CONTACT:				PHONE:					
SOURCE:	CDPHE								

LUST TRUST TANK SITES
SOURCE OF DATA: From an old CDPHE list of locations where tank leaks were suspected and LUST Trust funds were used in an effort to identify the source. Often, the source was found nearby and was entered in the LUST database (now COSTIS).
This listing not entered into COSTIS back when CDPHE transferred responsibility for tank leaks to OPS. Few people at OPS know of this old CDPHE list, and any associated files are thought to have been disposed of or misplaced.

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 255 DIST/DIR: 0.27 NE **ELEVATION:** 5226 MAP ID: 74 NAME: RTD REV: 04/24/12 ADDRESS: 655 MARIPOSA ST ID1: 1058 DENVER CO 80204 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 3/14/1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

SEARCH ID: 2 DIST/DIR: 0.28 SE ELEVATION: MAP ID: 75

 NAME:
 DENVER RADIUM SITE 94
 REV:
 10/08/08

 ADDRESS:
 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955L

 DENVER CO 80204
 ID2:
 0800247L

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

CONTACT:

SITE INFORMATION

EVENT TYPE SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION: CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006 FINAL DATE: 09/08/1983

CERCLIS DETAILS

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed04-15-200809-30-2008

risk/health assessmentEPA Fund-Financed04-12-200510-13-2005

prospective purchaser agreement assessmentFederal Enforcement11-26-200206-03-2005

forward planning activity/management assistanceEPA Fund-Financed09-15-200009-27-2000

preparation of cost document packageFederal Enforcement09-02-200010-19-2001

remedial design/remedial action negotiationsFederal Enforcement06-15-200010-10-2001

issue request letters (104e)Federal Enforcement03-28-200003-28-2000

national priorities list responsible party searchFederal Enforcement03-02-200003-28-2000 Primary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

NPL

REV:

ID1:

STATUS:

PHONE:

10/08/08

0800247L

3033126707

**FINAL** 

COD980716955L

SEARCH ID: 2 DIST/DIR: 0.28 SE ELEVATION: MAP ID: 75

NAME: DENVER RADIUM SITE 94
ADDRESS: VARIOUS PLACES IN DENVER

DENVER CO 80204 DENVER

CONTACT: JACK WHYTE

SOURCE: EPA

combined remedial investigation/feasibility studyEPA Fund-Financed11-15-199906-16-2000

five-year reviewEPA Fund-Financed06-10-199912-21-1999 Primary

preparation of cost document packageFederal Enforcement10-21-199812-15-1998

five-year reviewEPA Fund-Financed01-15-199809-30-2003 Primary

national priorities list responsible party searchFederal Enforcement03-08-199503-30-1995 Primary

preparation of cost document packageFederal Enforcement02-26-199407-11-1994

preparation of cost document packageFederal Enforcement12-31-199302-25-1994 Primary

potentially responsible party removalResponsible Party06-29-199308-27-1993 Cleaned upPrimary

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993 Primary

five-year reviewEPA Fund-Financed04-05-199309-12-1994 Primary

potentially responsible party remedial actionResponsible Party03-31-199306-16-2000 PrimaryOther Completion Anomaly

potentially responsible party remedial actionResponsible Party10-26-199206-29-1994 Higher priority for further assessmentPrimary

potentially responsible party remedial designResponsible Party06-07-199203-31-1993 Alternate

potentially responsible party remedial designResponsible Party06-07-199206-27-1996 Primary

remedial design/remedial action negotiationsFederal Enforcement01-28-199208-21-1992 Primary

preparation of cost document packageFederal Enforcement12-30-199102-11-1994 Primary

state support agency cooperative agreementState, Fund Financed07-25-199109-25-2000 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 06-26-199107-17-1991\ Search\ Complete,\ Viable\ PRPs$ 

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 06-26-199109-09-1991\ Search\ Complete,\ Viable\ PRPs$ 

national priorities list responsible party searchFederal Enforcement06-11-199108-08-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement05-24-199105-24-1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

REV:

ID1:

STATUS:

PHONE:

10/08/08

0800247L

3033126707

**FINAL** 

COD980716955L

SEARCH ID: 2 DIST/DIR: 0.28 SE ELEVATION: MAP ID: 75

NAME: DENVER RADIUM SITE 94
ADDRESS: VARIOUS PLACES IN DENVER

DENVER CO 80204 DENVER

CONTACT: JACK WHYTE

SOURCE: EPA

Primary

national priorities list responsible party searchFederal Enforcement01-09-199106-21-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement01-09-199105-29-1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement08-06-199009-29-1992 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 07-01-198809-12-1988$  Search Complete, Viable PRPs

state support agency cooperative agreementState, Fund Financed02-12-198807-20-1989 Primary

potentially responsible party remedial designResponsible Party12-11-198703-01-1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement08-03-198703-31-1988 Alternate

national priorities list responsible party searchFederal Enforcement07-22-198708-25-1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement04-30-198706-29-1987

national priorities list responsible party searchFederal Enforcement03-24-198706-02-1987

national priorities list responsible party searchFederal Enforcement09-12-198603-01-1990 Primary

national priorities list responsible party searchFederal Enforcement05-08-198601-16-1987

state support agency cooperative agreementState, Fund Financed04-10-198604-11-1991 Primary

national priorities list responsible party search Federal Enforcement<br/>01-16-198505-08-1986 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement01-16-198501-16-1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11-26-198401-16-1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed01-03-198401-03-1984 Primary

state support agency cooperative agreementState, Fund Financed08-19-198311-14-2000 Primary

remedial investigation/feasibility study workplan approval by hqState, Fund Financed12-31-198112-31-1981 Primary

notice letters issuedFederal Enforcement08-10-1982

notice letters issuedEPA Fund-Financed08-10-1982

hazard ranking system packageEPA Fund-Financed12-01-1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

VCP										
SEARCH ID:	262	DIST/DIR:	0.28 SE	ELEVATION:	5208	MAP ID:	76			
NAME: ADDRESS:	BRYANT STREE 2390 W 4TH AV			REV: ID1:	04/20/12 1000-76					
ADDRESS:	DENVER CO 80 DENVER			ID1: ID2: STATUS:	990720-1					
CONTACT: SOURCE:	CDPHE			PHONE:						

COLORADO VOLUNTARY CLEANUP AND REDEVELOPMENT ACT:

APPLICATION TYPE: BRYANT STREET QUAD APPLICATION NUMBER: VA-00184
APPLICATION TYPE: NAD FILE NUMBER: 990720-1
PARENT PROGRAM:
PARENT ID:
PARENT TYPE:
PROJECT MANAGER: MARK WALKER DATE RECEIVED: 7/20/1999
EXTENSION: Y
LENGTH OF EXTENSION-DAYS: 118
DATE DUE: 12/30/1999
DECISION: APPROVED
DATE OF DECISION: 12/20/1999

COVENANT: N

REMEDIATION START DATE:
REMEDIATION END DATE:
REVIEW COST: 1213.55
TAX CREDIT:
RESIDENCES CREATED:
JOBS CREATED:
CLEANUP ACRES: 10
OTHER ISSUES: Upgradient Source
MEDIA AFFECTED1: SOIL - Total Petroleum Hydrocarbons (TPH)
MEDIA AFFECTED2: GROUND WATER - Volatile Organic Compounds(VOCs)
MEDIA AFFECTED3:
LANDUSE RESTRICTION: INDUSTRIAL
RESTRICTION ID: 1

LINK: http://emaps.dphe.state.co.us/hmtrackreporter/VCRASingle.aspx?Acrnm=VCRA&SysID=VA-00184

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	212	DIST/DIR:	0.28 SW	ELEVATION:	5293	MAP ID:	77			
NAME:	GAS-A-CAR #54			REV:	04/24/12					
ADDRESS:	301 KNOX CT			ID1:	2457					
	DENVER CO 80219			ID2:	01.0055					
CONTACT	DENVER			STATUS:	CLOSED					
CONTACT: SOURCE:	COSTIS			PHONE:						

LUST INFORMATION STATUS: Closed LOG DATE: 12/16/1991

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	243	DIST/DIR:	0.29 SE	ELEVATION:	5222	MAP ID:	78		
NAME:	MURRAY DISTRI	IBUTING CO INC		REV:	04/24/12				
ADDRESS:	1505 W 3RD AV	Έ		ID1:	540				
	DENVER CO 80	223		ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 12/14/1990

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	201	DIST/DIR:	0.29 NE	ELEVATION:	5190	MAP ID:	79		
NAME:	CHEVRON USA INC	2		REV:	04/24/12				
ADDRESS:	2403 W 8TH AVE DENVER CO 80204			ID1: ID2:	1434				
CONTACT:	DENVER			STATUS: PHONE:	CLOSED				
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 5/27/1987

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	233	DIST/DIR:	0.29 SE	ELEVATION:	5204	MAP ID:	80			
NAME:	WYLACO SUPPI 295 VALLEJO	LY CO		REV: ID1:	04/24/12 1375					
ADDRESS:	DENVER CO 80	223		ID1: ID2:	13/3					
CONTACT:	DENVER			STATUS: PHONE:	CLOSED					
SOURCE:	COSTIS			FHONE:						

LUST INFORMATION STATUS: Closed LOG DATE: 8/27/1991

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	236	DIST/DIR:	0.30 SE	ELEVATION:	5219	MAP ID:	81			
NAME:	BP INVESTMENT			REV:	04/24/12					
ADDRESS:	330 QUIVAS ST DENVER CO 80223			ID1: ID2:	3071					
CONTACT:	DENVER			STATUS: PHONE:	CLOSED					
SOURCE:	COSTIS									

LUST INFORMATION STATUS: Closed LOG DATE: 2/12/1990

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**NPL** 

REV:

10/08/08

SEARCH ID: 3 DIST/DIR: 0.33 SE ELEVATION: MAP ID: 82

NAME: DENVER RADIUM SITE 95
ADDRESS: VARIOUS PLACES IN DENVER

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955M

 DENVER CO 80204
 ID2:
 0800247M

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

CONTACT:

SITE INFORMATION

EVENT TYPE SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006 FINAL DATE: 09/08/1983

CERCLIS DETAILS

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed04-15-200809-30-2008

risk/health assessmentEPA Fund-Financed04-12-200510-13-2005

prospective purchaser agreement assessmentFederal Enforcement11-26-200206-03-2005

forward planning activity/management assistanceEPA Fund-Financed09-15-200009-27-2000

preparation of cost document packageFederal Enforcement09-02-200010-19-2001

remedial design/remedial action negotiationsFederal Enforcement06-15-200010-10-2001

issue request letters (104e)Federal Enforcement03-28-200003-28-2000

national priorities list responsible party searchFederal Enforcement03-02-200003-28-2000 Primary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

REV:

10/08/08

**SEARCH ID:** 3 **DIST/DIR:** 0.33 SE **ELEVATION:** MAP ID: 82

NAME: DENVER RADIUM SITE 95
ADDRESS: VARIOUS PLACES IN DENVER

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955M

 DENVER CO 80204
 ID2:
 0800247M

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

CONTACT:

combined remedial investigation/feasibility studyEPA Fund-Financed11-15-199906-16-2000

five-year reviewEPA Fund-Financed06-10-199912-21-1999 Primary

preparation of cost document packageFederal Enforcement10-21-199812-15-1998

five-year reviewEPA Fund-Financed01-15-199809-30-2003

national priorities list responsible party searchFederal Enforcement03-08-199503-30-1995 Primary

preparation of cost document packageFederal Enforcement02-26-199407-11-1994

preparation of cost document packageFederal Enforcement12-31-199302-25-1994 Primary

potentially responsible party removalResponsible Party06-29-199308-27-1993 Cleaned upPrimary

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed04-05-199309-12-1994 Primary

potentially responsible party  $\,$  remedial actionResponsible Party03-31-199306-16-2000 PrimaryOther Completion Anomaly

potentially responsible party remedial actionResponsible Party10-26-199206-29-1994 Higher priority for further assessmentPrimary

potentially responsible party remedial designResponsible Party06-07-199203-31-1993

potentially responsible party remedial designResponsible Party06-07-199206-27-1996 Primary

remedial design/remedial action negotiationsFederal Enforcement01-28-199208-21-1992 Primary

preparation of cost document packageFederal Enforcement12-30-199102-11-1994 Primary

state support agency cooperative agreementState, Fund Financed07-25-199109-25-2000 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 06-26-199107-17-1991\ Search\ Complete,\ Viable\ PRPs$ 

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 06-26-199109-09-1991\ Search\ Complete,\ Viable\ PRPs$ 

national priorities list responsible party searchFederal Enforcement06-11-199108-08-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement05-24-199105-24-1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

REV:

10/08/08

SEARCH ID: 3 DIST/DIR: 0.33 SE ELEVATION: MAP ID: 82

NAME: DENVER RADIUM SITE 95
ADDRESS: VARIOUS PLACES IN DENVER

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955M

 DENVER CO 80204
 ID2:
 0800247M

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

 EPA

SOURCE:

Primary

CONTACT:

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 01-09-199106-21-1991\ Search\ Complete,\ Viable\ PRPs$ 

national priorities list responsible party searchFederal Enforcement01-09-199105-29-1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement08-06-199009-29-1992 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 07-01-198809-12-1988$  Search Complete, Viable PRPs

state support agency cooperative agreementState, Fund Financed02-12-198807-20-1989 Primary

potentially responsible party remedial designResponsible Party12-11-198703-01-1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement08-03-198703-31-1988

national priorities list responsible party searchFederal Enforcement07-22-198708-25-1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement04-30-198706-29-1987

national priorities list responsible party searchFederal Enforcement03-24-198706-02-1987 Search Complete. Viable PRPs

national priorities list responsible party searchFederal Enforcement09-12-198603-01-1990 Primary

national priorities list responsible party searchFederal Enforcement05-08-198601-16-1987

state support agency cooperative agreementState, Fund Financed04-10-198604-11-1991 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 01-16-198505-08-1986$  Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement01-16-198501-16-1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11-26-198401-16-1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed01-03-198401-03-1984 Primary

state support agency cooperative agreementState, Fund Financed08-19-198311-14-2000 Primary

remedial investigation/feasibility study workplan approval by hqState, Fund Financed12-31-198112-31-1981 Primary

notice letters issuedFederal Enforcement08-10-1982

notice letters issuedEPA Fund-Financed08-10-1982

hazard ranking system packageEPA Fund-Financed12-01-1982

- More Details Exist For This Site; Max Page Limit Reached -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**SWL** 

**ELEVATION:** MAP ID: 82 **SEARCH ID:** 144 DIST/DIR: 0.31 SE

NAME: KNOWN LANDFILL

REV: 12/01/08 ADDRESS: S BOUNDARIES APPROXIMATE: N; OF W. ID1: 132

00070-0000676 DENVER CO DENVER STATUS: HISTORIC PHONE:

CONTACT: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS STATUS: Denver CO Old Fill Sites

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES CONFIDENCE IN THIS INFO: LOW

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**CERCLIS** 

REV:

10/08/08

**SEARCH ID:** DIST/DIR: 0.33 SE **ELEVATION:** 5227 MAP ID: 83

NAME: **DENVER RADIUM SITE 94** ADDRESS: VARIOUS PLACES IN DENVER

ID1: COD980716955L DENVER CO 80204 0800247L **DENVER** STATUS: **FINAL** PHONE: 3033126707

CONTACT: JACK WHYTE

SOURCE: EPA

SITE INFORMATION

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006 FINAL DATE: 09/08/1983

**CERCLIS DETAILS** 

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed04-15-200809-30-2008

risk/health assessmentEPA Fund-Financed04-12-200510-13-2005

prospective purchaser agreement assessmentFederal Enforcement11-26-200206-03-2005

forward planning activity/management assistanceEPA Fund-Financed09-15-200009-27-2000

preparation of cost document packageFederal Enforcement09-02-200010-19-2001

remedial design/remedial action negotiationsFederal Enforcement06-15-200010-10-2001

issue request letters (104e)Federal Enforcement03-28-200003-28-2000

national priorities list responsible party searchFederal Enforcement03-02-200003-28-2000 Primary

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

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REV:

ID1:

STATUS:

10/08/08

0800247L

3033126707

**FINAL** 

COD980716955L

**SEARCH ID:** DIST/DIR: 0.33 SE **ELEVATION:** 5227 MAP ID: 83

**DENVER RADIUM SITE 94** NAME: ADDRESS: VARIOUS PLACES IN DENVER

DENVER CO 80204 **DENVER** 

CONTACT: JACK WHYTE

SOURCE: EPA PHONE:

combined remedial investigation/feasibility studyEPA Fund-Financed11-15-199906-16-2000

five-year reviewEPA Fund-Financed06-10-199912-21-1999 Primary

preparation of cost document packageFederal Enforcement10-21-199812-15-1998

five-year reviewEPA Fund-Financed01-15-199809-30-2003

national priorities list responsible party searchFederal Enforcement03-08-199503-30-1995

preparation of cost document packageFederal Enforcement02-26-199407-11-1994

preparation of cost document packageFederal Enforcement12-31-199302-25-1994

potentially responsible party removalResponsible Party06-29-199308-27-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed04-05-199309-12-1994

potentially responsible party remedial actionResponsible Party03-31-199306-16-2000 PrimaryOther Completion Anomaly

potentially responsible party remedial actionResponsible Party10-26-199206-29-1994 Higher priority for further assessmentPrimary

potentially responsible party remedial designResponsible Party06-07-199203-31-1993

potentially responsible party remedial designResponsible Party06-07-199206-27-1996

remedial design/remedial action negotiationsFederal Enforcement01-28-199208-21-1992

preparation of cost document packageFederal Enforcement12-30-199102-11-1994

state support agency cooperative agreementState, Fund Financed07-25-199109-25-2000

national priorities list responsible party searchFederal Enforcement06-26-199107-17-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement06-26-199109-09-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement06-11-199108-08-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement05-24-199105-24-1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**CERCLIS** 

**SEARCH ID:** 9 **DIST/DIR:** 0.33 SE **ELEVATION:** 5227 **MAP ID:** 83

NAME: DENVER RADIUM SITE 94
ADDRESS: VARIOUS PLACES IN DENVER

DENVER CO 80204
DENVER

CONTACT: JACK WHYTE

SOURCE: EPA

**REV:** 10/08/08 **ID1:** COD980716955L

 ID2:
 0800247L

 STATUS:
 FINAL

 PHONE:
 3033126707

Primary

national priorities list responsible party searchFederal Enforcement01-09-199106-21-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement01-09-199105-29-1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement08-06-199009-29-1992 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 07-01-198809-12-1988$  Search Complete, Viable PRPs

state support agency cooperative agreementState, Fund Financed02-12-198807-20-1989 Primary

potentially responsible party remedial designResponsible Party12-11-198703-01-1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement08-03-198703-31-1988 Alternate

national priorities list responsible party searchFederal Enforcement07-22-198708-25-1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement04-30-198706-29-1987

national priorities list responsible party searchFederal Enforcement03-24-198706-02-1987 Search Complete. Viable PRPs

national priorities list responsible party searchFederal Enforcement09-12-198603-01-1990 Primary

national priorities list responsible party searchFederal Enforcement05-08-198601-16-1987

state support agency cooperative agreementState, Fund Financed04-10-198604-11-1991 Primary

national priorities list responsible party search Federal Enforcement<br/>01-16-198505-08-1986 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>01-16-198501-16-1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11-26-198401-16-1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed01-03-198401-03-1984 Primary

state support agency cooperative agreementState, Fund Financed08-19-198311-14-2000 Primary

remedial investigation/feasibility study workplan approval by hqState, Fund Financed12-31-198112-31-1981 Primary

notice letters issuedFederal Enforcement08-10-1982

notice letters issuedEPA Fund-Financed08-10-1982

hazard ranking system packageEPA Fund-Financed12-01-1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	241	DIST/DIR:	0.33 SE	ELEVATION:	5224	MAP ID:	84		
NAME:	BOYD DISTRIBU	JTING CO		REV:	04/24/12				
ADDRESS:	350 OSAGE ST			ID1:	140				
	DENVER CO 80	)223		ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 12/30/1991

**SWL** 

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

 SEARCH ID:
 135
 DIST/DIR:
 0.33 SE
 ELEVATION:
 MAP ID:
 85

 NAME:
 KNOWN LANDFILL
 REV:
 12/01/08

 ADDRESS:
 APPROXIMATE: N: W. 3RD AVE.; E: S.
 ID1:
 135

DENVER CO

DENVER

DEN

COLORADO HISTORIC LANDFILLS

CDPHE/COUNTY

CONTACT:

SOURCE:

STATUS : Denver CO Old Fill Sites

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES CONFIDENCE IN THIS INFO: LOW

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	214	DIST/DIR:	0.33 SE	ELEVATION:	5206	MAP ID:	86			
NAME: ADDRESS:	HIGHLAND SAL			REV: ID1:	04/24/12 3225					
, BBN200.	DENVER CO 80			ID2: STATUS:	CLOSED					
CONTACT: SOURCE:	COSTIS			PHONE:	CLOSED					

LUST INFORMATION STATUS: Closed LOG DATE: 1/5/1990

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 239 DIST/DIR: 0.35 SE **ELEVATION:** MAP ID: 87 5210 WASTEWATER MANAGEMENT FACILITY NAME: REV: 04/24/12 ADDRESS: 2000 W 3RD AVE ID1: 3635 DENVER CO 80223 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 4/26/1991

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	249	DIST/DIR:	0.35 SE	ELEVATION:	5226	MAP ID:	88			
NAME: ADDRESS:	BOYD DISTRIBU 340 NAVAJO ST DENVER CO 80	Т		REV: ID1: ID2:	04/24/12 6994					
CONTACT: SOURCE:	DENVER COSTIS			STATUS: PHONE:	CLOSED					

LUST INFORMATION STATUS: Closed LOG DATE: 10/18/1991

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**CERCLIS** 

REV:

10/08/08

**SEARCH ID:** 10 DIST/DIR: 0.36 SE **ELEVATION:** 5229 MAP ID: 89

NAME: **DENVER RADIUM SITE 95** ADDRESS:

VARIOUS PLACES IN DENVER ID1: COD980716955M DENVER CO 80204 0800247M **DENVER** STATUS: **FINAL** 

CONTACT: JACK WHYTE PHONE: 3033126707

SOURCE: EPA

SITE INFORMATION

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006 FINAL DATE: 09/08/1983

**CERCLIS DETAILS** 

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed04-15-200809-30-2008

risk/health assessmentEPA Fund-Financed04-12-200510-13-2005

prospective purchaser agreement assessmentFederal Enforcement11-26-200206-03-2005

forward planning activity/management assistanceEPA Fund-Financed09-15-200009-27-2000

preparation of cost document packageFederal Enforcement09-02-200010-19-2001

remedial design/remedial action negotiationsFederal Enforcement06-15-200010-10-2001

issue request letters (104e)Federal Enforcement03-28-200003-28-2000

national priorities list responsible party searchFederal Enforcement03-02-200003-28-2000 Primary

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

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**SEARCH ID:** 10 DIST/DIR: 0.36 SE **ELEVATION:** 5229 MAP ID: 89

**DENVER RADIUM SITE 95** NAME: ADDRESS:

VARIOUS PLACES IN DENVER DENVER CO 80204

**DENVER** JACK WHYTE

CONTACT: SOURCE: EPA REV: 10/08/08

ID1: COD980716955M 0800247M STATUS: **FINAL** PHONE:

3033126707

combined remedial investigation/feasibility studyEPA Fund-Financed11-15-199906-16-2000

five-year reviewEPA Fund-Financed06-10-199912-21-1999 Primary

preparation of cost document packageFederal Enforcement10-21-199812-15-1998

five-year reviewEPA Fund-Financed01-15-199809-30-2003

national priorities list responsible party searchFederal Enforcement03-08-199503-30-1995

preparation of cost document packageFederal Enforcement02-26-199407-11-1994

preparation of cost document packageFederal Enforcement12-31-199302-25-1994

potentially responsible party removalResponsible Party06-29-199308-27-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed04-05-199309-12-1994

potentially responsible party remedial actionResponsible Party03-31-199306-16-2000 PrimaryOther Completion Anomaly

potentially responsible party remedial actionResponsible Party10-26-199206-29-1994 Higher priority for further assessmentPrimary

potentially responsible party remedial designResponsible Party06-07-199203-31-1993

potentially responsible party remedial designResponsible Party06-07-199206-27-1996

remedial design/remedial action negotiationsFederal Enforcement01-28-199208-21-1992

preparation of cost document packageFederal Enforcement12-30-199102-11-1994

state support agency cooperative agreementState, Fund Financed07-25-199109-25-2000

national priorities list responsible party searchFederal Enforcement06-26-199107-17-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement06-26-199109-09-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement06-11-199108-08-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement05-24-199105-24-1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

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REV:

10/08/08

**SEARCH ID:** 10 **DIST/DIR:** 0.36 SE **ELEVATION:** 5229 **MAP ID:** 89

NAME: DENVER RADIUM SITE 95
ADDRESS: VARIOUS PLACES IN DENVER

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955M

 DENVER CO 80204
 ID2:
 0800247M

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

Primary

CONTACT:

national priorities list responsible party searchFederal Enforcement01-09-199106-21-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement01-09-199105-29-1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement08-06-199009-29-1992 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 07-01-198809-12-1988$  Search Complete, Viable PRPs

state support agency cooperative agreementState, Fund Financed02-12-198807-20-1989 Primary

potentially responsible party remedial designResponsible Party12-11-198703-01-1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement08-03-198703-31-1988 Alternate

national priorities list responsible party searchFederal Enforcement07-22-198708-25-1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement04-30-198706-29-1987

national priorities list responsible party searchFederal Enforcement03-24-198706-02-1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement09-12-198603-01-1990 Primary

national priorities list responsible party searchFederal Enforcement05-08-198601-16-1987

state support agency cooperative agreementState, Fund Financed04-10-198604-11-1991 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 01-16-198505-08-1986$  Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>01-16-198501-16-1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11-26-198401-16-1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed01-03-198401-03-1984 Primary

state support agency cooperative agreementState, Fund Financed08-19-198311-14-2000 Primary

remedial investigation/feasibility study workplan approval by hqState, Fund Financed12-31-198112-31-1981 Primary

notice letters issuedFederal Enforcement08-10-1982

notice letters issuedEPA Fund-Financed08-10-1982

hazard ranking system packageEPA Fund-Financed12-01-1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	200	DIST/DIR:	0.36 NW	ELEVATION:	5226	MAP ID:	90		
NAME:	CGF SIGN INC	dba gordon sign c	CO	REV:	04/24/12				
ADDRESS:	2930 W 9TH AV	Έ		ID1:	2994				
	DENVER CO 80	204		ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 4/25/1997

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SWL** 

**SEARCH ID:** 136 **DIST/DIR:** 0.36 SE **ELEVATION: MAP ID:** 91

 NAME:
 KNOWN LANDFILL
 REV:
 12/01/08

 ADDRESS:
 W BOUNDARIES APPROXIMATE: S: W. 1S
 ID1:
 136

DENVER CO
DENVER

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS : Denver CO Old Fill Sites

METHANE PRESENT: NO CONFIDENCE IN THIS INFO: LOW

FIII- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES

CONFIDENCE IN THIS INFO: NOT REPORTED

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

SWL									
SEARCH ID:	145	DIST/DIR:	0.36 NE	ELEVATION:	5232	MAP ID:	92		
NAME:	STAFAB			REV:	12/01/08				
ADDRESS:	860 NAVAJO			ID1:	016-REC-001				
	DENVER CO 80204			ID2:					
	DENVER			STATUS:					
CONTACT:				PHONE:					
SOURCE:	CDPHE								

STATUS : Per CDPHE:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	226	DIST/DIR:	0.36 NW	ELEVATION:	5337	MAP ID:	93		
NAME:	REID PROPERTY			REV:	04/24/12				
ADDRESS:	600 PERRY ST			ID1:	4725				
	DENVER CO 80204			ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 9/23/1994

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	256	DIST/DIR:	0.37 NE	ELEVATION:	5231	MAP ID:	94		
NAME:	STOUT STREET	FOUNDATION		REV:	04/24/12				
ADDRESS:	875 NAVAJO S	Γ		ID1:	3161				
	DENVER CO 80	204		ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 4/3/1996

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST										
SEARCH ID:	252	DIST/DIR:	0.37 NE	ELEVATION:	5230	MAP ID:	95			
NAME: ADDRESS:	JEBCO HEATIN 666 LIPAN ST DENVER CO 80	IG & AIR CONDITIONIN	NG	REV: ID1: ID2:	04/24/12 8929					
CONTACT: SOURCE:	DENVER CO SO DENVER COSTIS	207		STATUS: PHONE:	CLOSED					

LUST INFORMATION STATUS: Closed LOG DATE: 5/20/2002 8:52:47 AM

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	254	DIST/DIR:	0.37 SE	ELEVATION:	5230	MAP ID:	96		
NAME:	MASTERS STUDIO			REV:	04/24/12				
ADDRESS:	1140 W 5TH AVE DENVER CO 80204			ID1: ID2:	4740				
CONTACT:	DENVER			STATUS: PHONE:	CLOSED				
SOURCE:	COSTIS			THORE.					

LUST INFORMATION STATUS: Closed LOG DATE: 4/15/1994

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	203	DIST/DIR:	0.38 NW	ELEVATION:	5210	MAP ID:	97		
NAME:	DENVER #2			REV:	04/24/12				
ADDRESS:	899 DECATUR ST			ID1:	9183				
	DENVER CO 80204			ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 4/24/2003 4:22:52 PM

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST									
SEARCH ID:	196	DIST/DIR:	0.38 NE	ELEVATION:	5203	MAP ID:	98		
NAME:	BOYS & GIRLS (	CLUB OF DENVER		REV:	04/24/12				
ADDRESS:	901 TEJON ST			ID1:	1515				
	DENVER CO 80	204		ID2:					
	DENVER			STATUS:	CLOSED				
CONTACT:				PHONE:					
SOURCE:	COSTIS								

LUST INFORMATION STATUS: Closed LOG DATE: 12/4/1996

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

	LUST										
SEARCH ID:	248	DIST/DIR:	0.38 NE	ELEVATION:	5230	MAP ID:	99				
NAME:	BELCON MECH	INICAL		REV:	04/24/12						
ADDRESS:	630 LIPAN DENVER CO 80	204		ID1: ID2:	3218						
CONTACT:	DENVER			STATUS: PHONE:	CLOSED						
SOURCE:	COSTIS										

LUST INFORMATION STATUS: Closed LOG DATE: 2/14/1992

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**NPL** 

**SEARCH ID:** DIST/DIR: 0.39 NE **ELEVATION:** MAP ID: 100 1

REV: NAME: DENVER RADIUM SITE 2/1/12

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955

DENVER CO 80204 0800247 STATUS: **FINAL** 

CONTACT: JACK WHYTE PHONE: 3033126707 SOURCE: EPA

SITE INFORMATION

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

CONSTRUCTION COMPLETED DATE: 09/27/2006

PARTIALY DELETED DATE: 11/08/2010

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

FINAL DATE: 9/27/2006

**CERCLIS DETAILS** 

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed4/15/20089/30/2008

risk/health assessmentEPA Fund-Financed4/12/200510/13/2005

prospective purchaser agreement assessmentFederal Enforcement11/26/20026/3/2005

forward planning activity/management assistanceEPA Fund-Financed9/15/20009/27/2000

preparation of cost document packageFederal Enforcement9/2/200010/19/2001

remedial design/remedial action negotiationsFederal Enforcement6/15/200010/10/2001

issue request letters (104e)Federal Enforcement3/28/20003/28/2000

national priorities list responsible party searchFederal Enforcement3/2/20003/28/2000 Primary

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

				NPL		
SEARCH ID:	1	DIST/DIR:	0.39 NE	ELEVATION:	MAP ID:	100
NAME: ADDRESS:	DENVER RAD VARIOUS PLA DENVER CO 8	CES IN DENVER		REV: ID1: ID2: STATUS:	2/1/12 COD980716955 0800247 FINAL	
CONTACT: SOURCE:	JACK WHYTE			PHONE:	3033126707	

preparation of cost document packageFederal Enforcement11/29/19991/25/2000

combined remedial investigation/feasibility studyEPA Fund-Financed11/15/19996/16/2000

five-year reviewEPA Fund-Financed6/10/199912/21/1999

preparation of cost document packageFederal Enforcement10/21/199812/15/1998

five-year reviewEPA Fund-Financed1/15/19989/30/2003 Primary

national priorities list responsible party searchFederal Enforcement3/8/19953/30/1995

preparation of cost document packageFederal Enforcement2/26/19947/11/1994

preparation of cost document packageFederal Enforcement12/31/19932/25/1994 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993

five-year reviewEPA Fund-Financed4/5/19939/12/1994 Primary

potentially responsible party  $\,$  remedial actionResponsible Party3/31/19936/16/2000 PrimaryOther Completion Anomaly

potentially responsible party remedial action Responsible Party 10/26/19926/29/1994 Higher priority for further assessment Primary

potentially responsible party remedial designResponsible Party6/7/19923/31/1993

potentially responsible party remedial designResponsible Party6/7/19926/27/1996 Primary

remedial design/remedial action negotiationsFederal Enforcement1/28/19928/21/1992 Primary

preparation of cost document package Federal Enforcement<br/>12/30/19912/11/1994 Primary

state support agency cooperative agreement State, Fund Financed 7/25/19919/25/2000  $\,$  Primary

national priorities list responsible party search Federal Enforcement<br/>6/26/19917/17/1991 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>6/26/19919/9/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/11/19918/8/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement5/24/19915/24/1991

preparation of cost document packageFederal Enforcement3/30/19919/30/1991 Primary

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

REV:

2/1/12

SEARCH ID: 1 DIST/DIR: 0.39 NE ELEVATION: MAP ID: 100

NAME: DENVER RADIUM SITE

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955

DENVER CO 80204 ID2: 0800247

STATUS: FINAL

CONTACT: JACK WHYTE PHONE: 3033126707 SOURCE: EPA

national priorities list responsible party searchFederal Enforcement1/9/19916/21/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement1/9/19915/29/1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement8/6/19909/29/1992 Primary

national priorities list responsible party searchFederal Enforcement7/1/19889/12/1988 Search Complete, Viable PRPs

state support agency cooperative agreement State, Fund Financed 2/12/19887/20/1989 Primary

potentially responsible party remedial designResponsible Party12/11/19873/1/1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement8/3/19873/31/1988 Alternate

national priorities list responsible party searchFederal Enforcement7/22/19878/25/1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement4/30/19876/29/1987 Primary

national priorities list responsible party searchFederal Enforcement3/24/19876/2/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement9/12/19863/1/1990

national priorities list responsible party searchFederal Enforcement5/8/19861/16/1987

state support agency cooperative agreement State, Fund Financed 4/10/19864/11/1991 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 1/16/19855/8/1986\ Search\ Complete,\ Viable\ PRPs$ 

national priorities list responsible party search Federal Enforcement<br/>1/16/19851/16/1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement 11/26/1984 1/16/1985 Search Complete, Viable PRPs

 $remedial\ investigation/feasibility\ study\ workplan\ approval\ by\ hqEPA\ Fund-Financed 1/3/19841/3/1984$  Primary

state support agency cooperative agreement State, Fund Financed 8/19/198311/14/2000 Primary

 $remedial\ investigation/feasibility\ study\ workplan\ approval\ by\ hq\ State,\ Fund\ Financed\ 12/31/198112/31/1981$  Primary

notice letters issuedFederal Enforcement8/10/1982

notice letters issuedEPA Fund-Financed8/10/1982

hazard ranking system packageEPA Fund-Financed12/1/1982

proposal to national priorities listEPA Fund-Financed12/30/1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	231	DIST/DIR:	0.39 SE	ELEVATION:	5207	MAP ID:	101
NAME: ADDRESS:	SLATTERY & CO 181 VALLEJO ST			REV: ID1:	04/24/12 6078		
ADDRESS.	DENVER CO 80223 DENVER			ID2: STATUS:	CLOSED		
CONTACT: SOURCE:	COSTIS			PHONE:			

LUST INFORMATION STATUS: Closed LOG DATE: 12/5/1997

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	193	DIST/DIR:	0.39 SW	ELEVATION:	5259	MAP ID:	102
NAME:	ALBERT WEDELL			REV:	04/24/12		
ADDRESS:	168 FEDERAL BLVD			ID1:	555		
	DENVER CO 80219			ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 2/20/1990

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	225	DIST/DIR:	0.39 NW	ELEVATION:	5343	MAP ID:	103
NAME:	NUCRISP			REV:	04/24/12		
ADDRESS:	601 PERRY ST			ID1:	4172		
	DENVER CO 80204			ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 10/24/1996

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	250	DIST/DIR:	0.39 NE	ELEVATION:	5237	MAP ID:	104
NAME:	CRAIG & ASSOC			REV:	04/24/12		
ADDRESS:	745 LIPAN ST			ID1:	4355		
	DENVER CO 80204			ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 1/16/1997

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 223 DIST/DIR: 0.40 SE **ELEVATION:** 5208 MAP ID: 105 NAME: NEUSTETER PROPERTY REV: 04/24/12 ADDRESS: 2450 W 2ND AVE ID1: 1825 DENVER CO 80223 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 6/18/1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 194 DIST/DIR: 0.41 SE **ELEVATION:** 5208 MAP ID: 106 NAME: ALVIN KRUTSCH PROPERTY REV: 04/24/12 ADDRESS: 146 YUMA ST ID1: 2084 DENVER CO 80223 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 1/17/1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**VCP SEARCH ID:** 263 DIST/DIR: 0.43 NE **ELEVATION:** 5230 MAP ID: 107 NAME: 10TH AND OSAGE PROPERTIES REV: 04/20/12 ADDRESS: 944 OSAGE ST ID1: 080509-2 DENVER CO 80204 080509-2 STATUS: **DENVER** PHONE: CONTACT: SOURCE: CDPHE

COLORADO VOLUNTARY CLEANUP AND REDEVELOPMENT ACT:

APPLICATION TYPE:
APPLICATION NUMBER:
APPLICATION TYPE: NAD
FILE NUMBER: 080509-2
PARENT PROGRAM:
PARENT ID:
PARENT TYPE:
PROJECT MANAGER:
DATE RECEIVED:
EXTENSION:
LENGTH OF EXTENSION-DAYS:
DATE DUE:
DECISION:
DATE OF DECISION:

REMEDIATION START DATE:
REMEDIATION END DATE:
REVIEW COST:
TAX CREDIT:
RESIDENCES CREATED:
JOBS CREATED:
CLEANUP ACRES:
OTHER ISSUES:
MEDIA AFFECTED1:
MEDIA AFFECTED2:
MEDIA AFFECTED3:
LANDUSE RESTRICTION:
RESTRICTION ID:
COVENANT:

LINK: http://emaps.dphe.state.co.us/hmtrackreporter/VCRASingle.aspx?Acrnm=VCRA&SysID=

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRATSD SEARCH ID:** 13 DIST/DIR: 0.44 NE **ELEVATION:** 5202 MAP ID: 108 NAME: KATZSON BROTHERS INC REV: 6/8/02 ADDRESS: 960 VALLEJO ST ID1: COD031992225 DENVER CO 80204 ID2: DENVER STATUS: TSD RICHARD-H RIGHT PHONE: CONTACT: 3038933535 SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: RICHARD-H RIGHT

960 VALLEJO ST DENVER CO 80204 PHONE: 3038933535

UNIVERSE NAME:

DF: LAND DISPOSAL FACILITY INCINERATOR TSDS SUBJECT TO CORRECTIVE ACT SUBJECT TO CEI ST: STORAGE AND TREATMENT SUBJECT TO CORRECTIVE ACTION

SIC INFORMATION:

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

PHONE:

**SEARCH ID:** DIST/DIR: **ELEVATION:** 5202 MAP ID: 108 16 0.44 NE

REV: NAME: KATZSON BROTHERS INC. 1/10/12 ADDRESS: 960 VALLEJO ST ID1: COD031992225

DENVER CO 80204

**DENVER** STATUS: CA

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: RICHARD-H RIGHT 960 VALLEJO ST DENVER CO 80204

PHONE: 3038933535

OWNER NAME:KATZSON BROTHERS INC OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR:
MAILING ADDRESS:960 VALLEJO ST DENVER, CO 80204

UNIVERSE INFORMATION:

RECEIVED DATE:02/15/1994

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----

CLOSURE WORKLOAD:--

CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:Y - CORRECTIVE ACTION WORKLOAD
GENERATOR STATUS:CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:+GW CONTROLS: LAND TYPE:SHORT TERM GEN:N

TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

			F	RCRACOR			
SEARCH ID:	16	DIST/DIR:	0.44 NE	ELEVATION:	5202	MAP ID:	108
NAME:	KATZSON BRC	OTHERS INC		REV:	1/10/12		
ADDRESS:	960 VALLEJO S			ID1:	COD031992225	5	
	DENVER CO 80	0204		ID2:			
	DENVER			STATUS:	CA		
CONTACT:				PHONE:			
SOURCE:	EPA						

- OTHER MISCELLANEOUS NONDURABLE GOODS WHOLESALERS

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

CORRECTIVE ACTION INFORMATION

CA EVENT:92/07/1992 CA070YE - DETERMINATION OF NEED FOR AN RFI - RFI IS NECESSARY

CA EVENT:92/03/1992 CA060 - NOTICE OF CONTAMINATION

CA EVENT:92/07/1992 CA075ME - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A MEDIUM CORRECTIVE ACTION PRIORITY

CA EVENT:92/07/1992 CA100 - RFI IMPOSITION

CA EVENT:92/03/1992 CA006AC

CA EVENT:93/11/1993 CA150 - RFI WORKPLAN APPROVED

CA EVENT:93/18/1993 CA120 - RFI WORKPLAN MODIFICATION REQUESTED BY AGENCY

CA EVENT:93/11/1993 CA110 - RFI WORKPLAN RECEIVED
CA EVENT:93/17/1993 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:93/27/1993 CA120 - RFI WORKPLAN MODIFICATION REQUESTED BY AGENCY

CA EVENT:93/17/1993 CA190 - RFI REPORT RECEIVED
CA EVENT:93/18/1993 CA150 - RFI WORKPLAN APPROVED

CA EVENT:93/15/1993 CA180 - RFI IMPLEMENTATION BEGUN

CA EVENT:94/09/1994 CA195 - RFI PROGRESS REPORTS RECEIVED

CA EVENT:94/26/1994 CA195 - RFI PROGRESS REPORTS RECEIVED

CA EVENT:94/14/1994 CA195 - RFI PROGRESS REPORTS RECEIVED

CA EVENT:95/01/1995 CA225YE - STABILIZATION MEASURES EVALUATION - FACILITY IS AMENABLE TO STABILIZATION ACTIVITY

CA EVENT:95/01/1995 CA725YE - CURRENT HUMAN EXPOSURES UNDER CONTROL - UNDER CONTROL

CA EVENT:96/23/1996 CA110 - RFI WORKPLAN RECEIVED

HAZARDOUS WASTE INFORMATION:

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	216	DIST/DIR:	0.44 NE	ELEVATION:	5202	MAP ID:	108
NAME:	KATZSON BRO	THERS INC		REV:	04/24/12		
ADDRESS:	960 VALLEJO S	Т		ID1:	2378		
	DENVER CO 80	204		ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 12/17/1992

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	253	DIST/DIR:	0.44 SE	ELEVATION:	5239	MAP ID:	109
NAME:	KALAMATH AS	SOCIATES PROPERTY		REV:	04/24/12		
ADDRESS:	570 KALAMATH	H ST		ID1:	623		
	DENVER CO 80	204		ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 9/9/1996

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SWL** 

SEARCH ID: 141 DIST/DIR: 0.45 NW ELEVATION: MAP ID: 110

NAME:KNOWN LANDFILLREV:12/01/08ADDRESS:N BOUNDARIES APPROXIMATE: EXTENDSID1:116

 DENVER CO
 ID2:
 00070-0000661

 DENVER
 STATUS:
 HISTORIC

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS : Denver CO Old Fill Sites

NO METHANE FOUND CONFIDENCE IN THIS INFO: LOW

FIII- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 217 DIST/DIR: 0.45 SE **ELEVATION:** MAP ID: 5210 111 NAME: KING SOOPERS GARAGE / FLEET MAINTENANCE REV: 04/24/12 ADDRESS: 95 TEJON ST ID1: 8703 DENVER CO 80223 ID2: DENVER STATUS: CLOSED CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 8/14/2001

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**NPL** 

**SEARCH ID:** DIST/DIR: **ELEVATION:** MAP ID: 8 0.46 NE 112

REV: NAME: DENVER RADIUM SITE-OU 9A 2/1/12

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955H

DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** JACK WHYTE PHONE: 3033126707

SOURCE: EPA

SITE INFORMATION

CONTACT:

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

CONSTRUCTION COMPLETED DATE: 09/27/2006

PARTIALY DELETED DATE: 11/08/2010

SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

FINAL DATE: 9/27/2006

**CERCLIS DETAILS** 

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed4/15/20089/30/2008

risk/health assessmentEPA Fund-Financed4/12/200510/13/2005

prospective purchaser agreement assessmentFederal Enforcement11/26/20026/3/2005

forward planning activity/management assistanceEPA Fund-Financed9/15/20009/27/2000

preparation of cost document packageFederal Enforcement9/2/200010/19/2001

remedial design/remedial action negotiationsFederal Enforcement6/15/200010/10/2001

issue request letters (104e)Federal Enforcement3/28/20003/28/2000

national priorities list responsible party searchFederal Enforcement3/2/20003/28/2000 Primary

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

SEARCH ID: 8 DIST/DIR: 0.46 NE ELEVATION: MAP ID: 112

NAME: DENVER RADIUM SITE-OU 9A REV: 2/1/12

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955H

DENVER CO 80204

DENVER

DENVER

DENVER

STATUS:

FINAL

JACK WHYTE

PHONE:

3033126707

EPA

preparation of cost document packageFederal Enforcement11/29/19991/25/2000

combined remedial investigation/feasibility studyEPA Fund-Financed11/15/19996/16/2000

five-year reviewEPA Fund-Financed6/10/199912/21/1999

CONTACT:

SOURCE:

preparation of cost document packageFederal Enforcement10/21/199812/15/1998

five-year reviewEPA Fund-Financed1/15/19989/30/2003

national priorities list responsible party searchFederal Enforcement3/8/19953/30/1995

preparation of cost document packageFederal Enforcement2/26/19947/11/1994

preparation of cost document packageFederal Enforcement12/31/19932/25/1994 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993

five-year reviewEPA Fund-Financed4/5/19939/12/1994 Primary

potentially responsible party  $\,$  remedial actionResponsible Party3/31/19936/16/2000 PrimaryOther Completion Anomaly

potentially responsible party remedial action Responsible Party 10/26/19926/29/1994 Higher priority for further assessment Primary

potentially responsible party  $\,$  remedial designResponsible Party6/7/19923/31/1993 Alternate

potentially responsible party remedial designResponsible Party6/7/19926/27/1996 Primary

remedial design/remedial action negotiationsFederal Enforcement1/28/19928/21/1992 Primary

preparation of cost document package Federal Enforcement 12/30/19912/11/1994 Primary

state support agency cooperative agreement State, Fund Financed 7/25/19919/25/2000  $\,$  Primary

national priorities list responsible party search Federal Enforcement<br/>6/26/19917/17/1991 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>6/26/19919/9/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/11/19918/8/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement5/24/19915/24/1991

preparation of cost document package Federal Enforcement<br/>3/30/19919/30/1991 Primary

- Continued on next page -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

2/1/12

SEARCH ID: 8 DIST/DIR: 0.46 NE ELEVATION: MAP ID: 112

NAME: DENVER RADIUM SITE-OU 9A REV:

VARIOUS PLACES IN DENVER ID1: COD980716955H

DENVER CO 80204 ID2: 0800247

DENVER STATUS: FINAL

JACK WHYTE PHONE: 3033126707

EPA

national priorities list responsible party searchFederal Enforcement1/9/19916/21/1991 Search Complete, Viable PRPs

ADDRESS:

CONTACT:

SOURCE:

national priorities list responsible party searchFederal Enforcement1/9/19915/29/1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement8/6/19909/29/1992

national priorities list responsible party search Federal Enforcement<br/>7/1/19889/12/1988 Search Complete, Viable PRPs

state support agency cooperative agreement State, Fund Financed 2/12/19887/20/1989

potentially responsible party remedial designResponsible Party12/11/19873/1/1990

remedial investigation/feasibility study negotiationsFederal Enforcement8/3/19873/31/1988

national priorities list responsible party searchFederal Enforcement7/22/19878/25/1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement4/30/19876/29/1987

national priorities list responsible party searchFederal Enforcement3/24/19876/2/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement9/12/19863/1/1990

national priorities list responsible party searchFederal Enforcement5/8/19861/16/1987

state support agency cooperative agreement State, Fund Financed 4/10/19864/11/1991 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 1/16/19855/8/1986\ Search\ Complete,\ Viable\ PRPs$ 

national priorities list responsible party search Federal Enforcement<br/>1/16/19851/16/1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11/26/19841/16/1985 Search Complete, Viable PRPs

 $remedial\ investigation/feasibility\ study\ workplan\ approval\ by\ hqEPA\ Fund-Financed 1/3/19841/3/1984$  Primary

state support agency cooperative agreement State, Fund Financed 8/19/198311/14/2000 Primary

 $remedial\ investigation/feasibility\ study\ workplan\ approval\ by\ hq\ State,\ Fund\ Financed\ 12/31/198112/31/1981$  Primary

notice letters issuedEPA Fund-Financed8/10/1982

notice letters issuedFederal Enforcement8/10/1982

hazard ranking system packageEPA Fund-Financed12/1/1982

proposal to national priorities listEPA Fund-Financed12/30/1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**SWL** 

SEARCH ID: 140 DIST/DIR: 0.46 NW ELEVATION: MAP ID: 112

 NAME:
 KNOWN LANDFILL
 REV:
 12/01/08

 ADDRESS:
 BOUNDARIES APPROXIMATE: BETWEEN QU
 ID1:
 122

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS STATUS : Denver CO Old Fill Sites

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO LIQUIDS: NO HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO UNKNOWN: YES CONFIDENCE IN THIS INFO: LOW

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	219	DIST/DIR:	0.46 NE	ELEVATION:	5200	MAP ID:	113
NAME:	LOOMIS			REV:	04/24/12		
ADDRESS:	974 YUMA ST			ID1:	10678		
	DENVER CO 80204			ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 8/14/2008 7:39:16 AM

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

				LUST			
SEARCH ID:	247	DIST/DIR:	0.46 NE	ELEVATION:	5242	MAP ID:	114
NAME:	ADCO GENERA	AL CORPORATION PRO	OPERTY	REV:	04/24/12		
ADDRESS:	1021 W 8TH AV	Έ		ID1:	7236		
	DENVER CO 80	218		ID2:			
	DENVER			STATUS:	CLOSED		
CONTACT:				PHONE:			
SOURCE:	COSTIS						

LUST INFORMATION STATUS: Closed LOG DATE: 2/3/1999

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

				RCRATSD			
SEARCH ID:	12	DIST/DIR:	0.47 NE	ELEVATION:	5200	MAP ID:	115
NAME: ADDRESS:	999 VALLEJO S DENVER CO 80			REV: ID1: ID2:	6/8/02 COD9837894	47	
CONTACT: SOURCE:	DENVER EPA			STATUS: PHONE:	TSD		

SITE INFORMATION

UNIVERSE NAME:

INCINERATOR ST: STORAGE AND TREATMENT SUBJECT TO CEI DF: LAND DISPOSAL FACILITY TSDS SUBJECT TO CORRECTIVE ACT SUBJECT TO CORRECTIVE ACTION

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRACOR** 

PHONE:

**SEARCH ID:** 15 **DIST/DIR:** 0.47 NE **ELEVATION:** 5200 **MAP ID:** 115

 NAME:
 G&K SERVICE INCORPORATED
 REV:
 1/10/12

 ADDRESS:
 999 VALLEJO ST
 ID1:
 COD983789447

DENVER CO 80204

DENVER STATUS: CA

CONTACT:

SOURCE: EPA

SITE INFORMATION

OWNER NAME: OWNER TYPE: OPERATOR: OPERATOR\_TYPE: MAILING ADDRESS:

UNIVERSE INFORMATION:

RECEIVED DATE:08/22/1990

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---POST CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:----CORRECTIVE ACTION WORKLOAD:Y - CORRECTIVE ACTION WORKLOAD
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:+GW CONTROLS:N-NO LAND TYPE:P-PRIVATESHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

- Continued on next page -

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

			F	RCRACOR			
SEARCH ID:	15	DIST/DIR:	0.47 NE	ELEVATION:	5200	MAP ID:	115
NAME: ADDRESS: CONTACT: SOURCE:	G&K SERVICE I 999 VALLEJO S DENVER CO 80 DENVER			REV: ID1: ID2: STATUS: PHONE:	1/10/12 COD9837894 CA	447	
CORRECTIVE A	ACTION INFORM	ATION					
	17/1990 CA006						
CA EVENT:90/1	17/1990 CA060	- NOTICE OF CONTAM	IINATION				
		- RFI IMPOSITION					
		- RFI WORKPLAN RECE	IVED				
CA EVENT:90/2	28/1990 CA150	- RFI WORKPLAN APPR	OVED				
CA EVENT:92/0	02/1992 CA190	- RFI REPORT RECEIVE					
CA EVENT:92/2	27/1992 CA195	- RFI PROGRESS REPOR	RTS RECEIVED				
CA EVENT:93/1	11/1993 CA120	- RFI WORKPLAN MOD	IFICATION REQUEST	ED BY AGENCY			
CA EVENT:93/0	09/1993 CA180	- RFI IMPLEMENTATIOI	N BEGUN				
CA EVENT:93/1	13/1993 CA110	- RFI WORKPLAN RECE	IVED				
CA EVENT:93/0	03/1993 CA195	- RFI PROGRESS REPOR	RTS RECEIVED				
CA EVENT:93/1	13/1993 CA150	- RFI WORKPLAN APPR	OVED				
CA EVENT:95/1	11/1995 CA075I	ME - CA PRIORITIZATIO	N - FACILITY OR ARE	EA WAS ASSIGNED A MEDIL	JM CORRECTIVE A	ACTION PRIORITY	
CA EVENT:95/0	01/1995 CA225I	N - STABILIZATION ME	ASURES EVALUATIO	N - FACILITY IS NOT AMEN	ABLE TO STABILIZ	ATION ACTIVITY (I	LACK OF DATA)
CA EVENT:95/0	01/1995 CA725	YE - CURRENT HUMAN	EXPOSURES UNDER	CONTROL - UNDER CONTR	ROL		
CA EVENT:02/2	21/2002 CA190	- RFI REPORT RECEIVE					
CA EVENT:03/0	04/2003 CA250	- CMS IMPOSITION					
CA EVENT:03/0	04/2003 CA200	- RFI APPROVED					
CA EVENT:06/3	30/2006 CA200	- RFI APPROVED					
CA EVENT:06/1	16/2006 CA190	- RFI REPORT RECEIVED					
CA EVENT:06/1	16/2006 CA260	- CMS WORKPLAN REC	EIVED				
CA EVENT:06/3	30/2006 CA270	- CMS WORKPLAN MO	DIFICATION REQUES	STED BY AGENCY			
CA EVENT:10/0	06/2010 CA8110	OM					

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 222 DIST/DIR: 0.48 SE **ELEVATION:** 5227 MAP ID: 116 NAME: MIRAMAR PARTNERSHIP REV: 04/24/12 ADDRESS: 2490 W 2ND AVE ID1: 5072 DENVER CO 80223 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 3/18/1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 221 DIST/DIR: 0.48 SE **ELEVATION:** MAP ID: 5210 117 NAME: MCCAFFREY FACILITY REV: 04/24/12 ADDRESS: 110 YUMA ST ID1: 9308 DENVER CO 80223 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 8/19/2003 10:04:43 AM

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST								
SEARCH ID:	251	DIST/DIR:	0.48 NE	ELEVATION:	5241	MAP ID:	118	
NAME:	DICK LESNICK			REV:	04/24/12			
ADDRESS:	866 LIPAN			ID1:	1616			
	DENVER CO 80204			ID2:				
	DENVER			STATUS:	CLOSED			
CONTACT:				PHONE:				
SOURCE:	COSTIS							

LUST INFORMATION STATUS: Closed LOG DATE: 12/9/1991

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST								
SEARCH ID:	259	DIST/DIR:	0.49 NE	ELEVATION:	5243	MAP ID:	119	
NAME:	SIXTH & SANTA FE CAR WASH			REV:	04/24/12			
ADDRESS:	603 SANTA FE	DR		ID1:	6587			
	DENVER CO 80	204		ID2:				
	DENVER			STATUS:	CLOSED			
CONTACT:				PHONE:				
SOURCE:	COSTIS							

LUST INFORMATION STATUS: Closed LOG DATE: 6/2/1998

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

LUST **SEARCH ID:** 257 DIST/DIR: 0.49 SE **ELEVATION:** 5230 MAP ID: 120 NAME: WASTE WATER MGMT REV: 04/24/12 ADDRESS: 3RD AVE & S PLATTE RIVER DR ID1: 4990 DENVER CO 80223 ID2: DENVER STATUS: CLOSED PHONE: CONTACT: SOURCE: COSTIS

LUST INFORMATION STATUS: Closed LOG DATE: 5/22/1991

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST								
SEARCH ID:	187	DIST/DIR:	0.50 SW	ELEVATION:	5280	MAP ID:	121	
NAME:	7-ELEVEN #1825-23603			REV:	04/24/12			
ADDRESS:	105 KNOX CT			ID1:	564			
	DENVER CO 80	)219		ID2:				
	DENVER			STATUS:	CLOSED			
CONTACT:				PHONE:				
SOURCE:	COSTIS							

LUST INFORMATION STATUS: Closed LOG DATE: 8/2/1990

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

LUST								
SEARCH ID:	188	DIST/DIR:	0.50 SW	ELEVATION:	5280	MAP ID:	121	
NAME: ADDRESS:	7-ELEVEN #23603 105 KNOX CT DENVER CO 80219			REV: ID1: ID2:	8108 4857			
CONTACT: SOURCE:	DENVER			STATUS: PHONE:				

IS LUST ACTIVE (Y/N)? N

TANK INFORMATION

TANK STATUS: Currently In Use TANK INSTALLED DATE: TANK CAPACITY: 12000 GALLONS TANK CONTENTS: Gasoline
TANK MATERIAL OF CONSTRUCTION: Cathodically Protected Steel
PIPE MATERIAL OF CONSTRUCTION: Fiberglass Reinforced Plastic

TANK STATUS: Currently In Use
TANK INSTALLED DATE:
TANK CAPACITY: 12000 GALLONS
TANK CONTENTS: Gasoline
TANK MATERIAL OF CONSTRUCTION: Cathodically Protected Steel
PIPE MATERIAL OF CONSTRUCTION: Fiberglass Reinforced Plastic

TANK STATUS: Currently In Use
TANK INSTALLED DATE:
TANK CAPACITY: 12000 GALLONS
TANK CONTENTS: Gasoline
TANK MATERIAL OF CONSTRUCTION: Cathodically Protected Steel
PIPE MATERIAL OF CONSTRUCTION: Fiberglass Reinforced Plastic

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST								
SEARCH ID:	189	DIST/DIR:	0.50 SW	ELEVATION:	5280	MAP ID:	121	
NAME:	7-ELEVEN #23603			REV:	04/24/12			
ADDRESS:	105 KNOX CT DENVER CO 80219			ID1: ID2:	10870			
	DENVER			STATUS:	OPEN			
CONTACT: SOURCE:	COSTIS			PHONE:				

LUST INFORMATION STATUS: Open LOG DATE: 6/23/2009 9:49:53 AM

Target Property: JOB: 6TH AVE DENVER, CO 80219 US 6

LUST								
SEARCH ID:	258	DIST/DIR:	0.50 SE	ELEVATION:	5243	MAP ID:	122	
NAME: ADDRESS:	CONOCO SS 571 SANTA FE DR			REV: ID1:	04/24/12 5808			
CONTACT:	DENVER CO 80204 DENVER			ID2: STATUS: PHONE:	CLOSED			
SOURCE:	COSTIS							

LUST INFORMATION STATUS: Closed LOG DATE: 3/5/1997

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

**SEARCH ID:** 20 DIST/DIR: 0.58 SE **ELEVATION:** MAP ID: 123 5243

REV: NAME: ALERT POLISHING AND PLATING 1/10/12 ADDRESS: 345 SANTA FE DR ID1: COR000016204

DENVER CO 80223

**DENVER** STATUS: CA

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: CHRIS A WILLBANKS SANTA FE DR DENVER CO 80223

PHONE: 3038253561

OWNER NAME:ROY WILLBANKS OWNER TYPE:P-PRIVATE OPERATOR: ALERT POLISHING AND PLATING OPERATOR TYPE: P-PRIVATE MAILING ADDRESS: 345 SANTA FE DR DENVER, CO 80 UNIVERSE INFORMATION:

RECEIVED DATE:11/02/2010

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO LAND TYPE:P-PRIVATESHORT TERM GEN:N

TRANS FACILITY:NREC WASTE FROM OFF SITE:N IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

REV:

PHONE:

1/10/12

**SEARCH ID:** 20 DIST/DIR: 0.58 SE **ELEVATION:** 5243 MAP ID: 123

NAME: ALERT POLISHING AND PLATING

ADDRESS: 345 SANTA FE DR ID1: COR000016204

DENVER CO 80223

**DENVER** STATUS: CA

CONTACT:

SOURCE: EPA

**ENFORCEMENT INFORMATION:** 

AGENCY: STATEDATE: 07/23/2007 TYPE: COMPLIANCE ADVISORY

AGENCY: STATEDATE: 07/17/2007 TYPE: FINAL 3008(A) COMPLIANCE ORDER

VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 07/23/2007DETERMINED BY: S - STATE CITATION: RESOLVED: 07/17/2007
TYPE: GENERATORS - GENERAL

CORRECTIVE ACTION INFORMATION

CA EVENT:07/14/2007 CA150 - RFI WORKPLAN APPROVED

CA EVENT:07/10/2007 CA070YE - DETERMINATION OF NEED FOR AN RFI - RFI IS NECESSARY

CA EVENT:07/10/2007 CA100 - RFI IMPOSITION

CA EVENT:07/07/2007 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:07/05/2007 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:07/10/2007 CA075LO - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A LOW CORRECTIVE ACTION PRIORITY

CA EVENT:07/03/2007 CA150 - RFI WORKPLAN APPROVED

CA EVENT:08/20/2008 CA190 - RFI REPORT RECEIVED

CA EVENT:08/21/2008 CA200 - RFI APPROVED

CA EVENT:08/21/2008 CA370 - PETITION FOR NO FURTHER ACTION RECEIPT DATE

CA EVENT:08/21/2008 CA375 - DECISION ON PETITION FOR NO FURTHER ACTION

CA EVENT:08/21/2008 CA550NR - REMEDY CONSTRUCTION - NO REMEDY CONSTRUCTED

CA EVENT:08/21/2008 CA999NF - CORRECTIVE ACTION PROCESS TERMINATED - NO FURTHER ACTION

HAZARDOUS WASTE INFORMATION:

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

REV:

10/08/08

SEARCH ID: 4 DIST/DIR: 0.61 SE ELEVATION: MAP ID: 124

NAME: DENVER RADIUM SITE 97
ADDRESS: VARIOUS PLACES IN DENVER

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955N

 DENVER CO 80204
 ID2:
 0800247N

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

CONTACT:

SITE INFORMATION

EVENT TYPE SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006 FINAL DATE: 09/08/1983

CERCLIS DETAILS

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed04-15-200809-30-2008

risk/health assessmentEPA Fund-Financed04-12-200510-13-2005

prospective purchaser agreement assessmentFederal Enforcement11-26-200206-03-2005

forward planning activity/management assistanceEPA Fund-Financed09-15-200009-27-2000

preparation of cost document packageFederal Enforcement09-02-200010-19-2001

remedial design/remedial action negotiationsFederal Enforcement06-15-200010-10-2001

issue request letters (104e)Federal Enforcement03-28-200003-28-2000

national priorities list responsible party searchFederal Enforcement03-02-200003-28-2000 Primary

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**NPL** 

**SEARCH ID:** DIST/DIR: 0.61 SE **ELEVATION:** MAP ID: 124

NAME: **DENVER RADIUM SITE 97** ADDRESS: VARIOUS PLACES IN DENVER

DENVER CO 80204 **DENVER** 

CONTACT: JACK WHYTE

SOURCE: EPA ID1: COD980716955N

REV:

0800247N STATUS: **FINAL** PHONE: 3033126707

10/08/08

combined remedial investigation/feasibility studyEPA Fund-Financed11-15-199906-16-2000

five-year reviewEPA Fund-Financed06-10-199912-21-1999 Primary

preparation of cost document packageFederal Enforcement10-21-199812-15-1998

five-year reviewEPA Fund-Financed01-15-199809-30-2003

national priorities list responsible party searchFederal Enforcement03-08-199503-30-1995

preparation of cost document packageFederal Enforcement02-26-199407-11-1994

preparation of cost document packageFederal Enforcement12-31-199302-25-1994

potentially responsible party removalResponsible Party06-29-199308-27-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed06-01-199309-30-1993

five-year reviewEPA Fund-Financed04-05-199309-12-1994

potentially responsible party remedial actionResponsible Party03-31-199306-16-2000 PrimaryOther Completion Anomaly

potentially responsible party remedial actionResponsible Party10-26-199206-29-1994 Higher priority for further assessmentPrimary

potentially responsible party remedial designResponsible Party06-07-199203-31-1993

potentially responsible party remedial designResponsible Party06-07-199206-27-1996

remedial design/remedial action negotiationsFederal Enforcement01-28-199208-21-1992

preparation of cost document packageFederal Enforcement12-30-199102-11-1994

state support agency cooperative agreementState, Fund Financed07-25-199109-25-2000

national priorities list responsible party searchFederal Enforcement06-26-199107-17-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement06-26-199109-09-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement06-11-199108-08-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement05-24-199105-24-1991

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL** 

REV:

10/08/08

SEARCH ID: 4 DIST/DIR: 0.61 SE ELEVATION: MAP ID: 124

NAME: DENVER RADIUM SITE 97
ADDRESS: VARIOUS PLACES IN DENVER

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955N

 DENVER CO 80204
 ID2:
 0800247N

 DENVER
 STATUS:
 FINAL

 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

Primary

CONTACT:

national priorities list responsible party searchFederal Enforcement01-09-199106-21-1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement01-09-199105-29-1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement08-06-199009-29-1992 Primary

 $national\ priorities\ list\ responsible\ party\ search Federal\ Enforcement 07-01-198809-12-1988$  Search Complete, Viable PRPs

state support agency cooperative agreementState, Fund Financed02-12-198807-20-1989 Primary

potentially responsible party remedial designResponsible Party12-11-198703-01-1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement08-03-198703-31-1988 Alternate

national priorities list responsible party searchFederal Enforcement07-22-198708-25-1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement04-30-198706-29-1987

national priorities list responsible party searchFederal Enforcement03-24-198706-02-1987 Search Complete. Viable PRPs

national priorities list responsible party searchFederal Enforcement09-12-198603-01-1990 Primary

national priorities list responsible party searchFederal Enforcement05-08-198601-16-1987

state support agency cooperative agreementState, Fund Financed04-10-198604-11-1991 Primary

national priorities list responsible party search Federal Enforcement<br/>01-16-198505-08-1986 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>01-16-198501-16-1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11-26-198401-16-1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed01-03-198401-03-1984 Primary

state support agency cooperative agreementState, Fund Financed08-19-198311-14-2000 Primary

remedial investigation/feasibility study workplan approval by hqState, Fund Financed12-31-198112-31-1981 Primary

notice letters issuedFederal Enforcement08-10-1982

notice letters issuedEPA Fund-Financed08-10-1982

hazard ranking system packageEPA Fund-Financed12-01-1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**NPL** 

**SEARCH ID:** 5 DIST/DIR: **ELEVATION:** MAP ID: 124 0.64 NE

REV: NAME: **DENVER RADIUM SITE-OU 10** 2/1/12

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955I

DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** JACK WHYTE PHONE: 3033126707 EPA

SITE INFORMATION

CONTACT:

SOURCE:

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

CONSTRUCTION COMPLETED DATE: 09/27/2006 PARTIALY DELETED DATE: 11/08/2010 FINAL DATE: 9/27/2006

#### SITE DESCRIPTION

THREATENED:

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

#### **CERCLIS DETAILS**

#### ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed4/15/20089/30/2008

risk/health assessmentEPA Fund-Financed4/12/200510/13/2005

prospective purchaser agreement assessmentFederal Enforcement11/26/20026/3/2005

forward planning activity/management assistanceEPA Fund-Financed9/15/20009/27/2000

preparation of cost document packageFederal Enforcement9/2/200010/19/2001

remedial design/remedial action negotiationsFederal Enforcement6/15/200010/10/2001

issue request letters (104e)Federal Enforcement3/28/20003/28/2000

national priorities list responsible party searchFederal Enforcement3/2/20003/28/2000 Primary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

NPL							
SEARCH ID:	5	DIST/DIR:	0.64 NE	ELEVATION:	MAP ID:	124	
NAME:	DENVER RAD	IUM SITE-OU 10		REV:	2/1/12		
ADDRESS:	VARIOUS PLACES IN DENVER		ID1:	COD980716955I			
	DENVER CO	80204		ID2:	0800247		
	DENVER			STATUS:	FINAL		

PHONE:

3033126707

preparation of cost document packageFederal Enforcement11/29/19991/25/2000

combined remedial investigation/feasibility studyEPA Fund-Financed11/15/19996/16/2000

five-year reviewEPA Fund-Financed6/10/199912/21/1999

JACK WHYTE

EPA

CONTACT:

SOURCE:

preparation of cost document packageFederal Enforcement10/21/199812/15/1998

five-year reviewEPA Fund-Financed1/15/19989/30/2003 Primary

national priorities list responsible party searchFederal Enforcement3/8/19953/30/1995

preparation of cost document packageFederal Enforcement2/26/19947/11/1994

preparation of cost document packageFederal Enforcement12/31/19932/25/1994

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed4/5/19939/12/1994 Primary

potentially responsible party  $\,$  remedial actionResponsible Party3/31/19936/16/2000 PrimaryOther Completion Anomaly

potentially responsible party remedial action Responsible Party 10/26/19926/29/1994 Higher priority for further assessment Primary

potentially responsible party remedial designResponsible Party6/7/19923/31/1993 Alternate

potentially responsible party remedial designResponsible Party6/7/19926/27/1996 Primary

remedial design/remedial action negotiationsFederal Enforcement1/28/19928/21/1992 Primary

preparation of cost document package Federal Enforcement<br/>12/30/19912/11/1994 Primary

state support agency cooperative agreement State, Fund Financed 7/25/19919/25/2000  $\,$  Primary

national priorities list responsible party search Federal Enforcement<br/>6/26/19917/17/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/26/19919/9/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/11/19918/8/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement5/24/19915/24/1991

preparation of cost document packageFederal Enforcement3/30/19919/30/1991 Primary

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**NPL** 

REV:

2/1/12

**SEARCH ID:** 5 DIST/DIR: **ELEVATION:** MAP ID: 124 0.64 NE

NAME: **DENVER RADIUM SITE-OU 10** 

EPA

CONTACT:

SOURCE:

ADDRESS: VARIOUS PLACES IN DENVER ID1:

COD980716955I DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** JACK WHYTE PHONE: 3033126707

national priorities list responsible party searchFederal Enforcement1/9/19916/21/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement1/9/19915/29/1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement8/6/19909/29/1992

national priorities list responsible party searchFederal Enforcement7/1/19889/12/1988 Search Complete, Viable PRPs

state support agency cooperative agreement State, Fund Financed 2/12/19887/20/1989

potentially responsible party remedial designResponsible Party12/11/19873/1/1990

remedial investigation/feasibility study negotiationsFederal Enforcement8/3/19873/31/1988

national priorities list responsible party searchFederal Enforcement7/22/19878/25/1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement4/30/19876/29/1987

national priorities list responsible party searchFederal Enforcement3/24/19876/2/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement9/12/19863/1/1990

national priorities list responsible party searchFederal Enforcement5/8/19861/16/1987

state support agency cooperative agreement State, Fund Financed 4/10/19864/11/1991 Primary

national priorities list responsible party searchFederal Enforcement1/16/19855/8/1986 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement1/16/19851/16/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement11/26/19841/16/1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed1/3/19841/3/1984 Primary

state support agency cooperative agreement State, Fund Financed 8/19/198311/14/2000 Primary

remedial investigation/feasibility study workplan approval by hq State, Fund Financed 12/31/198112/31/1981 Primary

notice letters issuedFederal Enforcement8/10/1982

notice letters issuedEPA Fund-Financed8/10/1982

hazard ranking system packageEPA Fund-Financed12/1/1982

proposal to national priorities listEPA Fund-Financed12/30/1982

- More Details Exist For This Site; Max Page Limit Reached -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**NPL** 

2/1/12

**SEARCH ID:** DIST/DIR: 0.72 NE **ELEVATION:** MAP ID: 124

REV: NAME: DENVER RADIUM SITE-OU 7B

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955E

DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** JACK WHYTE PHONE: 3033126707

SITE INFORMATION

CONTACT:

SOURCE:

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION:

EPA

CONTAMINATED: SOILS, DEBRIS

THREATENED:

CONSTRUCTION COMPLETED DATE: 09/27/2006

PARTIALY DELETED DATE: 11/08/2010

SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

FINAL DATE: 9/27/2006

**CERCLIS DETAILS** 

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed4/15/20089/30/2008

risk/health assessmentEPA Fund-Financed4/12/200510/13/2005

prospective purchaser agreement assessmentFederal Enforcement11/26/20026/3/2005

forward planning activity/management assistanceEPA Fund-Financed9/15/20009/27/2000

preparation of cost document packageFederal Enforcement9/2/200010/19/2001

remedial design/remedial action negotiationsFederal Enforcement6/15/200010/10/2001

issue request letters (104e)Federal Enforcement3/28/20003/28/2000

national priorities list responsible party searchFederal Enforcement3/2/20003/28/2000 Primary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**NPL SEARCH ID:** DIST/DIR: 0.72 NE **ELEVATION:** MAP ID: 124 6 DENVER RADIUM SITE-OU 7B REV: NAME: 2/1/12 ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955E DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** CONTACT: JACK WHYTE PHONE: 3033126707 SOURCE: EPA

preparation of cost document packageFederal Enforcement11/29/19991/25/2000

combined remedial investigation/feasibility studyEPA Fund-Financed11/15/19996/16/2000

five-year reviewEPA Fund-Financed6/10/199912/21/1999

preparation of cost document packageFederal Enforcement10/21/199812/15/1998

five-year reviewEPA Fund-Financed1/15/19989/30/2003 Primary

national priorities list responsible party searchFederal Enforcement3/8/19953/30/1995

preparation of cost document packageFederal Enforcement2/26/19947/11/1994

preparation of cost document packageFederal Enforcement12/31/19932/25/1994 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed4/5/19939/12/1994 Primary

potentially responsible party  $\,$  remedial actionResponsible Party3/31/19936/16/2000 PrimaryOther Completion Anomaly

potentially responsible party remedial action Responsible Party 10/26/19926/29/1994 Higher priority for further assessment Primary

potentially responsible party  $\,$  remedial designResponsible Party6/7/19923/31/1993 Alternate

potentially responsible party remedial designResponsible Party6/7/19926/27/1996 Primary

remedial design/remedial action negotiationsFederal Enforcement1/28/19928/21/1992 Primary

preparation of cost document package Federal Enforcement<br/>12/30/19912/11/1994 Primary

state support agency cooperative agreement State, Fund Financed 7/25/19919/25/2000  $\,$  Primary

national priorities list responsible party search Federal Enforcement<br/>6/26/19917/17/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/26/19919/9/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/11/19918/8/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement5/24/19915/24/1991

preparation of cost document package Federal Enforcement<br/>3/30/19919/30/1991 Primary

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**NPL** 

REV:

2/1/12

**SEARCH ID:** DIST/DIR: 0.72 NE **ELEVATION:** MAP ID: 124 6

NAME: **DENVER RADIUM SITE-OU 7B** 

CONTACT:

SOURCE:

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955E

DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** JACK WHYTE PHONE: 3033126707 EPA

national priorities list responsible party searchFederal Enforcement1/9/19916/21/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement1/9/19915/29/1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement8/6/19909/29/1992

national priorities list responsible party searchFederal Enforcement7/1/19889/12/1988 Search Complete, Viable PRPs

state support agency cooperative agreement State, Fund Financed 2/12/19887/20/1989

potentially responsible party remedial designResponsible Party12/11/19873/1/1990

remedial investigation/feasibility study negotiationsFederal Enforcement8/3/19873/31/1988

national priorities list responsible party searchFederal Enforcement7/22/19878/25/1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement4/30/19876/29/1987

national priorities list responsible party searchFederal Enforcement3/24/19876/2/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement9/12/19863/1/1990

national priorities list responsible party searchFederal Enforcement5/8/19861/16/1987

state support agency cooperative agreement State, Fund Financed 4/10/19864/11/1991 Primary

national priorities list responsible party searchFederal Enforcement1/16/19855/8/1986 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement1/16/19851/16/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement11/26/19841/16/1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed1/3/19841/3/1984 Primary

state support agency cooperative agreement State, Fund Financed 8/19/198311/14/2000 Primary

remedial investigation/feasibility study workplan approval by hq State, Fund Financed 12/31/198112/31/1981 Primary

notice letters issuedEPA Fund-Financed8/10/1982

notice letters issuedFederal Enforcement8/10/1982

hazard ranking system packageEPA Fund-Financed12/1/1982

proposal to national priorities listEPA Fund-Financed12/30/1982

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: JOB: **6TH AVE** US 6

DENVER, CO 80219

**NPL** 

**SEARCH ID:** 7 DIST/DIR: **ELEVATION:** MAP ID: 124 0.65 NE

REV: NAME: DENVER RADIUM SITE-OU 7C 2/1/12

> VARIOUS PLACES IN DENVER ID1: COD980716955F

DENVER CO 80204 0800247 **DENVER** STATUS: **FINAL** JACK WHYTE PHONE: 3033126707 EPA

SITE INFORMATION

ADDRESS:

CONTACT:

SOURCE:

SITE DISCOVERY BY: EPADISCOVERY DATE: 03-01-79 SITE PROPOSED BY: EPAPROPOSED DATE: 10-23-81 FINAL LIST BY: EPAFINAL LIST DATE: 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS THREATENED:

CONSTRUCTION COMPLETED DATE: 09/27/2006

PARTIALY DELETED DATE: 11/08/2010

SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

FINAL DATE: 9/27/2006

**CERCLIS DETAILS** 

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year reviewEPA Fund-Financed4/15/20089/30/2008

risk/health assessmentEPA Fund-Financed4/12/200510/13/2005

prospective purchaser agreement assessmentFederal Enforcement11/26/20026/3/2005

forward planning activity/management assistanceEPA Fund-Financed9/15/20009/27/2000

preparation of cost document packageFederal Enforcement9/2/200010/19/2001

remedial design/remedial action negotiationsFederal Enforcement6/15/200010/10/2001

issue request letters (104e)Federal Enforcement3/28/20003/28/2000

national priorities list responsible party searchFederal Enforcement3/2/20003/28/2000 Primary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

NPL							
SEARCH ID:	7	DIST/DIR:	0.65 NE	ELEVATION:	<b>MAP ID:</b> 124		
NAME: ADDRESS:		IUM SITE-OU 7C CES IN DENVER 80204		REV: ID1: ID2:	2/1/12 COD980716955F 0800247		

DENVER STATUS: FINAL
JACK WHYTE PHONE: 3033126707
EPA

preparation of cost document packageFederal Enforcement11/29/19991/25/2000

combined remedial investigation/feasibility studyEPA Fund-Financed11/15/19996/16/2000

five-year reviewEPA Fund-Financed6/10/199912/21/1999

CONTACT:

SOURCE:

preparation of cost document packageFederal Enforcement10/21/199812/15/1998

five-year reviewEPA Fund-Financed1/15/19989/30/2003 Primary

national priorities list responsible party searchFederal Enforcement3/8/19953/30/1995

preparation of cost document packageFederal Enforcement2/26/19947/11/1994 Primary

preparation of cost document packageFederal Enforcement12/31/19932/25/1994 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993 Primary

five-year reviewEPA Fund-Financed6/1/19939/30/1993

five-year reviewEPA Fund-Financed4/5/19939/12/1994 Primary

potentially responsible party  $\,$  remedial actionResponsible Party3/31/19936/16/2000 PrimaryOther Completion Anomaly

potentially responsible party remedial action Responsible Party 10/26/19926/29/1994 Higher priority for further assessment Primary

potentially responsible party remedial designResponsible Party6/7/19923/31/1993 Alternate

potentially responsible party remedial designResponsible Party6/7/19926/27/1996 Primary

remedial design/remedial action negotiationsFederal Enforcement1/28/19928/21/1992 Primary

preparation of cost document package Federal Enforcement<br/>12/30/19912/11/1994 Primary

state support agency cooperative agreement State, Fund Financed 7/25/19919/25/2000  $\,$  Primary

national priorities list responsible party search Federal Enforcement<br/>6/26/19917/17/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/26/19919/9/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement6/11/19918/8/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement5/24/19915/24/1991

preparation of cost document packageFederal Enforcement3/30/19919/30/1991 Primary

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

NPL							
SEARCH ID:	7	DIST/DIR:	0.65 NE	ELEVATION:	<b>MAP ID:</b> 124		
NAME:		IUM SITE-OU 7C		REV:	2/1/12		
ADDRESS:	VARIOUS PLACES IN DENVER DENVER CO 80204		ID1: ID2:	COD980716955F 0800247			
CONTACT: SOURCE:	DENVER JACK WHYTE EPA			STATUS: PHONE:	FINAL 3033126707		

national priorities list responsible party searchFederal Enforcement1/9/19916/21/1991 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement1/9/19915/29/1992 Search Complete, Viable PRPs

state support agency cooperative agreementFederal Enforcement8/6/19909/29/1992 Primary

national priorities list responsible party search Federal Enforcement<br/>7/1/19889/12/1988 Search Complete, Viable PRPs

state support agency cooperative agreement State, Fund Financed 2/12/19887/20/1989 Primary

potentially responsible party remedial designResponsible Party12/11/19873/1/1990 Primary

remedial investigation/feasibility study negotiationsFederal Enforcement8/3/19873/31/1988 Alternate

national priorities list responsible party searchFederal Enforcement7/22/19878/25/1987 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqFederal Enforcement4/30/19876/29/1987 Primary

national priorities list responsible party searchFederal Enforcement3/24/19876/2/1987 Search Complete, Viable PRPs

national priorities list responsible party searchFederal Enforcement9/12/19863/1/1990

national priorities list responsible party searchFederal Enforcement5/8/19861/16/1987

state support agency cooperative agreement State, Fund Financed 4/10/19864/11/1991 Primary

national priorities list responsible party search Federal Enforcement<br/>1/16/19855/8/1986 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>1/16/19851/16/1987 Search Complete, Viable PRPs

national priorities list responsible party search Federal Enforcement<br/>11/26/19841/16/1985 Search Complete, Viable PRPs

remedial investigation/feasibility study workplan approval by hqEPA Fund-Financed1/3/19841/3/1984 Primary

state support agency cooperative agreement State, Fund Financed 8/19/198311/14/2000 Primary

 $remedial\ investigation/feasibility\ study\ workplan\ approval\ by\ hq\ State,\ Fund\ Financed\ 12/31/198112/31/1981$  Primary

notice letters issuedEPA Fund-Financed8/10/1982

notice letters issuedFederal Enforcement8/10/1982

hazard ranking system packageEPA Fund-Financed12/1/1982

proposal to national priorities listEPA Fund-Financed12/30/1982

- More Details Exist For This Site; Max Page Limit Reached -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

PHONE:

**SEARCH ID:** 19 DIST/DIR: 0.75 SE **ELEVATION:** MAP ID: 125 5210

REV: NAME: SAFETY-KLEEN SYSTEMS INC 1/10/12 ADDRESS: 1345 W BAYAUD AVE ID1: COD980954101

DENVER CO 80223

**DENVER** STATUS: CA

CONTACT: SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: SCOTT DAVIS 8795 FOLSOM BLVD., SUITE 108 SACRAMENTO CA 95826

PHONE: 9163876063

OWNER NAME:DIRT MAGNET,INC. OWNER TYPE:P-PRIVATE OPERATOR:
OPERATOR TYPE:
MAILING ADDRESS:6000 88TH ST SACRAMENTO, CA 95826

UNIVERSE INFORMATION:

RECEIVED DATE:09/10/2001

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:Y - SUBJECT TO CORRECTIVE ACTION SUBJCA TSD 3004:N - NO SUBJCA NON TSD:N - NO SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----CORRECTIVE ACTION WORKLOAD:---
CORRECTIVE ACTION WORKLOAD:N - NO GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:+GW CONTROLS:+LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:Y

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:Y - YESUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

Target Property: 6TH AVE JOB: US 6

**DENVER, CO 80219** 

**RCRACOR** 

PHONE:

**SEARCH ID:** 19 **DIST/DIR:** 0.75 SE **ELEVATION:** 5210 **MAP ID:** 125

 NAME:
 SAFETY-KLEEN SYSTEMS INC
 REV:
 1/10/12

 ADDRESS:
 1345 W BAYAUD AVE
 ID1:
 COD980954101

DENVER CO 80223

DENVER STATUS: CA

CONTACT: SOURCE: EPA

- ALL OTHER BUSINESS SUPPORT SERVICES 333319 - OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING 44131 - AUTOMOTIVE PARTS AND ACCESSORIES STORES

#### **ENFORCEMENT INFORMATION:**

AGENCY: STATEDATE: 88/24/1988 TYPE: WRITTEN INFORMAL

AGENCY: STATEDATE: 89/06/1989 TYPE: INITIAL 3008(A) COMPLIANCE

AGENCY: STATEDATE: 89/27/1989 TYPE: FINAL 3008(A) COMPLIANCE ORDER

AGENCY: STATEDATE: 91/08/1991 TYPE: WRITTEN INFORMAL

AGENCY: STATEDATE: 95/29/1995 TYPE: NOTICE OF VIOLATION

AGENCY: STATEDATE: 96/18/1996 TYPE: FINAL 3008(A) COMPLIANCE ORDER

AGENCY: STATEDATE: 97/14/1997 TYPE: V3 Conversion Compliance Advisory

#### VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 88/24/1988DETERMINED BY: S - STATE CITATION: RESOLVED: 88/09/1988 TYPE: TSD - GENERAL

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 88/06/1988DETERMINED BY: S - STATE CITATION: RESOLVED: 89/27/1989 TYPE: TSD - GENERAL

VIOLATION NUMBER: 3RESPONSIBLE: S - STATE DETERMINED: 88/04/1988DETERMINED BY: S - STATE CITATION: RESOLVED: 89/07/1989 TYPE: TSD - FINANCIAL REQUIREMENTS

VIOLATION NUMBER: 4RESPONSIBLE: S - STATE DETERMINED: 91/22/1991DETERMINED BY: S - STATE CITATION: RESOLVED: 91/26/1991 TYPE: TSD - FINANCIAL REQUIREMENTS

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

**SEARCH ID:** 19 DIST/DIR: 0.75 SE **ELEVATION:** MAP ID: 125 5210

SAFETY-KLEEN SYSTEMS INC REV: NAME: 1/10/12 ADDRESS: 1345 W BAYAUD AVE ID1: COD980954101

DENVER CO 80223

**DENVER** STATUS: CA

CONTACT: PHONE:

SOURCE: EPA

VIOLATION NUMBER: 5RESPONSIBLE: S - STATE DETERMINED: 95/11/1995DETERMINED BY: S - STATE CITATION: RESOLVED: 96/16/1996

TYPE: TSD - FINANCIAL REQUIREMENTS

VIOLATION NUMBER: 6RESPONSIBLE: S - STATE DETERMINED: 94/02/1994DETERMINED BY: S - STATE CITATION: RESOLVED: 96/14/1996 TYPE: TSD - FINANCIAL REQUIREMENTS

VIOLATION NUMBER: 7RESPONSIBLE: S - STATE DETERMINED: 94/02/1994DETERMINED BY: S - STATE CITATION: RESOLVED: 96/14/1996 TYPE: TSD - FINANCIAL REQUIREMENTS

VIOLATION NUMBER: 8RESPONSIBLE: S - STATE DETERMINED: 97/13/1997DETERMINED BY: S - STATE CITATION: RESOLVED: 97/19/1997

TYPE: TSD - FINANCIAL REQUIREMENTS

CORRECTIVE ACTION INFORMATION

CA EVENT:89/06/1989 CA055

CA EVENT:89/06/1989 CA070YE - DETERMINATION OF NEED FOR AN RFI - RFI IS NECESSARY

CA EVENT:91/17/1991 CA006AC

CA EVENT:91/17/1991 CA100 - RFI IMPOSITION

CA EVENT:91/03/1991 CA180 - RFI IMPLEMENTATION BEGUN

CA EVENT:91/17/1991 CA150 - RFI WORKPLAN APPROVED

CA EVENT:92/09/1992 CA195 - RFI PROGRESS REPORTS RECEIVED

CA EVENT:92/03/1992 CA260 - CMS WORKPLAN RECEIVED

CA EVENT:92/09/1992 CA060 - NOTICE OF CONTAMINATION

CA EVENT:93/06/1993 CA330 - CMS IMPLEMENTATION BEGUN

CA EVENT:93/08/1993 CA195 - RFI PROGRESS REPORTS RECEIVED

CA EVENT:93/17/1993 CA300 - CMS WORKPLAN APPROVED

CA EVENT:94/04/1994 CA340 - CMS REPORT RECEIVED

- More Details Exist For This Site; Max Page Limit Reached -

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

**SEARCH ID:** 18 DIST/DIR: 0.79 SE **ELEVATION:** MAP ID: 5212 126

REV: NAME: MALLOW PLATING WORKS INC 1/10/12 ADDRESS: 118 S PECOS ST ID1: COD007076813

DENVER CO 80223

**DENVER** STATUS: CA

CONTACT: PHONE:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: MERLE KORTE 118 S PECOS ST

DENVER CO 80223 PHONE: 3037780444

OWNER NAME:MALLOW PLATING WORKS INC OWNER TYPE:P-PRIVATE OPERATOR: MALLOW PLATING WORKS INC OPERATOR\_TYPE:P-PRIVATE MAILING ADDRESS:118 S PECOS ST

DENVER, UNIVERSE INFORMATION:

RECEIVED DATE:08/28/1980

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO SUBJCA TSD 3004:N - NO SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED SIGNIFICANT NON-COMPLIANCE(SNC):N - NO BEGINNING OF THE YEAR SNC: PERMIT WORKLOAD:----CLOSURE WORKLOAD:----POST CLOSURE WORKLOAD:---PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:+GW CONTROLS:+ LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRACOR** 

**SEARCH ID:** 18 **DIST/DIR:** 0.79 SE **ELEVATION:** 5212 **MAP ID:** 126

 NAME:
 MALLOW PLATING WORKS INC
 REV:
 1/10/12

 ADDRESS:
 118 S PECOS ST
 ID1:
 COD007076813

DENVER CO 80223 ID2:

DENVER STATUS: CA

CONTACT: PHONE:

ENFORCEMENT INFORMATION:

EPA

SOURCE:

AGENCY: STATEDATE: 92/20/1992

TYPE: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY

VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 92/24/1992DETERMINED BY: S - STATE CITATION: RESOLVED: 94/22/1994

TYPE: GENERATORS - GENERAL

CORRECTIVE ACTION INFORMATION

CA EVENT:92/14/1992 CA300 - CMS WORKPLAN APPROVED

CA EVENT:92/14/1992 CA500 - CMI WORKPLAN APPROVED

CA EVENT:92/01/1992 CA600SR - STABILIZATION MEASURES IMPLEMENTED - SOURCE REMOVAL AND/OR TREATMENT

CA EVENT:92/21/1992 CA180 - RFI IMPLEMENTATION BEGUN
CA EVENT:92/14/1992 CA150 - RFI WORKPLAN APPROVED
CA EVENT:92/24/1992 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:92/20/1992 CA100 - RFI IMPOSITION

CA EVENT:92/20/1992 CA250 - CMS IMPOSITION
CA EVENT:93/01/1993 CA190 - RFI REPORT RECEIVED

CA EVENT:94/30/1994 CA195 - RFI PROGRESS REPORTS RECEIVED
CA EVENT:94/15/1994 CA195 - RFI PROGRESS REPORTS RECEIVED

CA EVENT:94/25/1994 CA999 - CORRECTIVE ACTION PROCESS TERMINATED

CA EVENT:95/20/1995 CA006AC

CA EVENT:95/01/1995 CA225YE - STABILIZATION MEASURES EVALUATION - FACILITY IS AMENABLE TO STABILIZATION ACTIVITY
CA EVENT:95/11/1995 CA075LO - CA PRIORITIZATION - FACILITY OR AREA WAS ASSIGNED A LOW CORRECTIVE ACTION PRIORITY

CA EVENT:95/01/1995 CA725YE - CURRENT HUMAN EXPOSURES UNDER CONTROL - UNDER CONTROL

**Target Property:** JOB: US 6 **6TH AVE** 

DENVER, CO 80219

**RCRACOR** 

REV:

1/10/12

DIST/DIR: **SEARCH ID:** 18 0.79 SE **ELEVATION:** 5212 MAP ID: 126

NAME: MALLOW PLATING WORKS INC

ADDRESS: 118 S PECOS ST ID1: COD007076813

DENVER CO 80223

STATUS: **DENVER** CA

CONTACT: PHONE:

SOURCE: EPA

CA EVENT:95/01/1995 CA750YE - GROUNDWATER RELEASES CONTROLLED DETERMINATION - MIGRATION OF CONTAMINATED GW IS UNDER CONTROL

HAZARDOUS WASTE INFORMATION:

F006 - Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007 - Spent cyanide plating bath solutions from electroplating operations.
F008 - Plating bath residues from the bottom of plating baths from electroplating operations in which cyanides are used in the process.

Target Property: 6TH AVE JOB: US 6

DENVER, CO 80219

**RCRACOR** 

PHONE:

**SEARCH ID:** 21 **DIST/DIR:** 0.90 SE **ELEVATION:** 5239 **MAP ID:** 127

 NAME:
 PSCO - BARTERS LOT C
 REV:
 1/10/12

 ADDRESS:
 701 W BAYAUD AVE
 ID1:
 COD982584526

DENVER CO 80223

DENVER STATUS: CA

CONTACT:

SOURCE: EPA

SITE INFORMATION

CONTACT INFORMATION: MINDY TRAUTMAN P O BOX 840 SSP 2000 ENV SVCS DENVER CO 80201

PHONE: 3032948926

OWNER NAME:PUBLIC SERVICE CO OF COLORADO OWNER TYPE:P-PRIVATE OPERATOR: OPERATOR TYPE: MAILING ADDRESS: P O BOX 840 SSP 2000 ENV SVCS DENVER, CO 80201 UNIVERSE INFORMATION:

RECEIVED DATE:08/03/2004

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:Y - NON TSDFS WHERE CORRECTIVE ACTION HAS BEEN IMPOSED SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:---CLOSURE WORKLOAD:---POST CLOSURE WORKLOAD:---PERMITING /CLOSURE/POST-CLOSURE PROGRESS:---CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:N

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N HUMAN EXPOSURE:+GW CONTROLS:+ LAND TYPE:O-OTHERSHORT TERM GEN:N TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO USED OIL REFINER:N - NOUSED OIL FURL BURNER:N - NO UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

**Target Property:** JOB: **6TH AVE** US 6

DENVER, CO 80219

**RCRACOR** 

PHONE:

**SEARCH ID:** 21 DIST/DIR: 0.90 SE **ELEVATION:** 5239 MAP ID: 127

PSCO - BARTERS LOT C REV: NAME: 1/10/12 ADDRESS: 701 W BAYAUD AVE ID1: COD982584526

DENVER CO 80223

**DENVER** STATUS: CA

CONTACT: SOURCE: EPA

**ENFORCEMENT INFORMATION:** 

AGENCY: STATEDATE: 93/24/1993 TYPE: FINAL 3008(H) I.S. CA ORDER

AGENCY: STATEDATE: 96/30/1996 TYPE: WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 1RESPONSIBLE: S - STATE DETERMINED: 93/26/1993DETERMINED BY: S - STATE CITATION: RESOLVED: 93/24/1993 TYPE: GENERATORS - GENERAL

VIOLATION NUMBER: 2RESPONSIBLE: S - STATE DETERMINED: 96/01/1996DETERMINED BY: S - STATE CITATION: RESOLVED: 96/20/1996

TYPE: GENERATORS - GENERAL

CORRECTIVE ACTION INFORMATION

CA EVENT:92/01/1992 CA600SR - STABILIZATION MEASURES IMPLEMENTED - SOURCE REMOVAL AND/OR TREATMENT

CA EVENT:93/05/1993 CA100 - RFI IMPOSITION

CA EVENT:93/19/1993 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:93/24/1993 CA250 - CMS IMPOSITION

CA EVENT:93/05/1993 CA120 - RFI WORKPLAN MODIFICATION REQUESTED BY AGENCY

CA EVENT:93/01/1993 CA150 - RFI WORKPLAN APPROVED CA EVENT:93/01/1993 CA180 - RFI IMPLEMENTATION BEGUN

CA EVENT:93/11/1993 CA110 - RFI WORKPLAN RECEIVED

CA EVENT:93/11/1993 CA006AC

CA EVENT:93/11/1993 CA070

CA EVENT:93/11/1993 CA060 - NOTICE OF CONTAMINATION CA EVENT:94/26/1994 CA260 - CMS WORKPLAN RECEIVED

CA EVENT:94/02/1994 CA500 - CMI WORKPLAN APPROVED

Target Property: 6TH AVE DENVER, CO 80219 JOB: US 6

RCRACOR									
SEARCH ID:	21	DIST/DIR:	0.90 SE	ELEVATION:	5239	MAP ID:	127		
NAME: ADDRESS: CONTACT: SOURCE:				REV: ID1: ID2: STATUS: PHONE:	1/10/12 COD98258452 CA	26			
300RCL.	EPA								
	02/1994 CA450 - CC			VED					
	CA EVENT:94/02/1994 CA400 - CA400-REMEDY DECISION								
	CA EVENT:94/02/1994 CA300 - CMS WORKPLAN APPROVED								
	CA EVENT:95/22/1995 CA190 - RFI REPORT RECEIVED								
	28/1995 CA190 - RFI								
				ea was assigned a low c	ORRECTIVE ACTIC	N PRIORITY			
	CA EVENT:95/01/1995 CA190 - RFI REPORT RECEIVED								
	11/1995 CA999 - CC								
	17/1995 CA999 - CC								
				R CONTROL - UNDER CONTR	OL				
	CA EVENT:95/11/1995 CA999 - CORRECTIVE ACTION PROCESS TERMINATED								
CA EVENT:95/1	CA EVENT:95/12/1995 CA999 - CORRECTIVE ACTION PROCESS TERMINATED								
CA EVENT:95/0	CA EVENT:95/01/1995 CA225YE - STABILIZATION MEASURES EVALUATION - FACILITY IS AMENABLE TO STABILIZATION ACTIVITY								
CA EVENT:95/0	01/1995 CA750YE - (	GROUNDWATER RE	ELEASES CONTROL	LED DETERMINATION - MIGR	ATION OF CONTA	AMINATED GW IS	S UNDER CONTROL		
CA EVENT:01/2	CA EVENT:01/20/2001 CA841TS								
CA EVENT:01/06/2001 CA510 - DETERMINATION OF TECHNICAL IMPRACTICABILITY									
HAZARDOUS WASTE INFORMATION:									

#### **Environmental FirstSearch Descriptions**

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.FINAL - Currently on the Final NPLPROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.DELISTED - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.PART OF NPL- Site is part of NPL siteDELETED - Deleted from the Final NPLFINAL - Currently on the Final NPLNOT PROPOSED - Not on the NPLNOT VALID - Not Valid Site or IncidentPROPOSED - Proposed for NPLREMOVED - Removed from Proposed NPLSCAN PLAN - Pre-proposal SiteWITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.NFRAP – No Further Remedial Action PlanP - Site is part of NPL siteD - Deleted from the Final NPLF - Currently on the Final NPLN - Not on the NPLO - Not Valid Site or IncidentP - Proposed for NPLR - Removed from Proposed NPLS - Pre-proposal SiteW – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. Facilities that generate or transport hazardous waste or meet other RCRA requirements. LGN - Large Quantity Generators SGN - Small Quantity Generators VGN - Conditionally Exempt Generator. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities. CONNECTICUT HAZARDOUS WASTE MANIFEST - Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records. MASSACHUSETTES HAZARDOUS WASTE GENERATOR - database of generators that are regulated under the MA DEP. VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil. SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil. LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification: Failure to report in a timely matter. No longer in business. No longer in business at the listed address. No longer generating hazardous waste materials in quantities which require reporting.

Fed Brownfield: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs./n CLEANUPS IN MY COMMUNITY (subset) - Sites, facilities and properties that have been contaminated by hazardous materials and are being, or have been, cleaned up under EPA's brownfield's program.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: CDPHE CO SPL - Colorado does not have an official State Priority List (SPL). However, there are a number of sites that the state seems to place in this sort of category. Some are officially a Natural Resource Damages Site (NRDS) or Private Cleanup Site (Non-Superfund), but they're listed on the state's web page of Superfund sites (www.cdphe.state.co.us/hm/sf\_sites.htm). Others are UMTRA (Uranium Mill Tailing Remedial Action) mill tailing cleanup

sites (www.cdphe.state.co.us/hm/umsites.htm). Thousands of UMTRA "vicinity properties" have also been identified where mill tailings were used as sand in concrete, roadbase, trenches, bricks, etc. Such properties have been remediated in Durango, Grand Junction, Fruita, Palisade, Gunnison, Maybell, Naturita and Rifle, but some unidentified tailings may still remain in and around these communities. CDPHE's list of vicinity properties is not publicly available and was not searched for this report. Property-specific information is available through the CDPHE Grand Junction office. See www.cdphe.state.co.us/hm/rptailng.htm.

State Spills 90: CDPHE ENVIRONMENTAL RELEASE AND INCIDENT DATABASE - This is a database of reported spills in Colorado.

State/Tribal SWL: CDPHE DATABASE OF ACTIVE SOLID WASTE MANAGEMENT FACILITIES - Listing of Active solid waste facilities and transfer stations.DATABASE OF ACTIVE SOLID WASTE MANAGEMENT FACILITIES - Listing of Active solid waste facilities and transfer stations.CO Historic Landfills - This proprietary database represents a compilation of eleven local, regional and state agency sources. The agencies generated these lists on a one-time basis and do not expect to update them. A more detailed description of the applicable source is included with any findings reported from this database. The eleven sources are:1. Adams County CO Old Landfills2. Arapahoe County CO Old Landfills3. Douglas County CO Old Landfills. Weld County CO Old Landfills5. Boulder County CO Old Landfills6. Jefferson County CO Old Landfills7. Denver CO Methane Study8. CO Methane Study9. DRCOG Methane Study10. Denver CO Old Fil Sites11. CO Old Waste Sites

State/Tribal LUST: COSTIS DATABASE OF LEAKING UNDERGROUND STORAGE TANKS - Colorado Department of Labor and Employment's Colorado Storage Tank Information System (COSTIS) provides this data.LUST Trust Tanks - This is an old list of locations where tank leaks were suspected and LUST (Leaking Underground Storage Tank) Trust funds were used in an effort to identify the source. Often, the facility responsible for the leak was found nearby, and that facility was then entered into the LUST database. In other cases, however, the source was never identified, and nothing was ever entered into the LUST database. When responsibility for the tank program was transferred from CDPHE (Colorado Department of Public Health & Environment) to CDLE (Colorado Department of Labor & Employment) in the '90s, this old LUST Trust list was never entered into the new COSTIS database (Colorado Storage Tank Information System). Few people at CDLE are aware of this old list, and any files associated with the listings have apparently been discarded or misplaced.

State/Tribal UST/AST: COSTIS DATABASE OF UNDERGROUND STORAGE TANKS - Colorado Department of Labor and Employment's Colorado Storage Tank Information System (COSTIS) provides this data.

State/Tribal EC: CDPHE ENVIRONMENTAL COVENANTS - Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is adequately protective of human health and the environment.

State/Tribal VCP: CDPHE THE VOLUNTARY CLEANUP AND REDEVELOPMENT PROGRAM PROGRAM - The Voluntary Cleanup and Redevelopment program was created in 1994. The objective of the program is to facilitate the redevelopment and transfer of contaminated properties. Cleanup decisions are based on existing standards and the proposed use of the property. The actual cleanup and verification is the owner's responsibility.

Receptors: US DOC SENSITIVE RECEPTORS - 2005 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System) database of schools and hospitals. List of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

NPDES: EPA THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM - Database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

FINDS: EPA FACILITY INDEX SYSTEM(FINDS)/FACILITY REGISTRY SYSTEM(FRS) - The index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. A Facility Registry System site has an FRS in the status field.

TRIS: EPA TOXIC RELEASE INVENTORY SYSTEM (TRIS)— Database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990.

HMIRS: US DOT HAZARDOUS MATERIALS INCIDENT RESPONSE SYSTEM - Database of information regarding materials, packaging, and a description of events for tracked incidents.

NCDB: EPA NATIONAL COMPLIANCE DATA BASE SYSTEM - Database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts and inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

PADS: EPA DATABASE OF PCB HANDLERS - Database of PolyChlorinatedBiPhenol generators, transporters, storers and/or disposers that are required to register with the EPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

RADON: NTIS NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

AIRS: EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS) – database of detailed information pertaining to sites which submit air emissions reports. Developed under the Clean Air Act, this database also maintains data on compliance status and enforcement actions.

DOCKET: EPA INTERGRATED COMPLIANCE INFORMATION SYSTEM (ICIS) - database of federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act (CAA), the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313, the Toxic Substances Control Act (TSCA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), the Safe Drinking Water Act (SDWA), and the Marine Protection, Research, and Sanctuaries Act (MPRSA).

Nuclear Permits: EPA/NRC PERMITTED NUCLEAR FACILITIES - This database is a comprehensive listing of all facilities which have been issued permits for the handling of radioactive materials, in addition it also contains a complete listing of all licensed and active nuclear power plants located within the United States.THE RADINFO DATABASE - Database of basic information about facilities that are permitted and regulated for their use and handling of radioactive materials.

Federal Other: EPA SECTION SEVEN TRACKING SYSTEM (SSTS) – database of registration and production data for facilities which manufacture pesticides.VAPOR INTRUSION DATABASE – database that records the migration of volatile chemicals from the subsurface into overlying buildings. Volatile chemicals in contaminated soil or groundwater can emit

vapors that may migrate through soil and into indoor air spaces.

SETS PRP: EPA POTENTIALLY RESPONSIBLE PARTIES (PRP) – database of parties identified by the EPA as being potential responsible for contamination at a CERCLIS or NPL site.

Federal IC / EC: EPA FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated. RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES (RCRA) – RCRA site the have institutional controls.

Meth Labs: US DOJ NATIONAL CLANDESTINE LABORATORY REGISTER - Database of addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

Vapor Intrusion: EPA VAPOR INTRUSION DATABASE - This database contains site-specific measurements of vapor attenuation, or the reduction in vapor concentrations as volatile contaminants move from soil and groundwater into indoor air.

#### **Environmental FirstSearch Database Sources**

NPL: EPA Environmental Protection Agency Updated quarterly NPL DELISTED: EPA Environmental Protection Agency Updated quarterly CERCLIS: EPA Environmental Protection Agency Updated quarterly NFRAP: EPA Environmental Protection Agency. Updated quarterly RCRA COR ACT: EPA Environmental Protection Agency. Updated quarterly RCRA TSD: EPA Environmental Protection Agency. Updated quarterly RCRA GEN: EPA/MA DEP/CT DEP Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection Updated quarterly RCRA NLR: EPA Environmental Protection Agency Updated quarterly Fed Brownfield: EPA Environmental Protection Agency Updated quarterly ERNS: EPA/NRC Environmental Protection AgencyNational Response Center. Updated annually Tribal Lands: DOI/BIA United States Department of the InteriorBureau of Indian Affairs Updated annually

State/Tribal Sites: CDPHE The Colorado Department of Public Health and Environment Hazardous Materials and Waste Management Division

Updated annually

State Spills 90: CDPHE CDPHE Hazardous Materials and Waste Management Division

Updated annually

State/Tribal SWL: CDPHE The Colorado Department of Public Health and Environment Hazardous Materials and Waste Management DivisionPublic Safety

Updated annually

State/Tribal LUST: COSTIS The Colorado Department of Labor and Employment/Division of Oil and Public Safety

Updated semi-annually

State/Tribal UST/AST: COSTIS The Colorado Department of Labor and Employment/Division of Oil and Public Safety

Updated semi-annually

State/Tribal EC: CDPHE rado Department of Public Health and Environment Hazardous Materials and Waste Management Division

Updated annually

State/Tribal VCP: CDPHE The Colorado Department of Public Health and Environment Hazardous Materials and Waste Management Division

Updated annually

Receptors: US DOC US Department of Commerce, Census Bureau

Updated periodically

NPDES: EPA Environmental Protection Agency

Updated quarterly

FINDS: EPA Environmental Protection Agency

Updated annually

TRIS: EPA Environmental Protection Agency.

Updated quarterly

HMIRS: US DOT US Department of Transportation

Updated quarterly

NCDB: EPA Environmental Protection Agency

Updated quarterly

PADS: EPA Environmental Protection Agency

Updated quarterly

RADON: NTIS Environmental Protection Agency, National Technical Information Services

Updated periodically

AIRS: EPA Environmental Protection Agency

Updated quarterly

DOCKET: EPA Environmental Protection Agency

Updated when available

Nuclear Permits: EPA/NRC Nuclear Regulatory CommissionEnvironmental Protection Agency.

Updated periodically

Federal Other: EPA Environmental Protection Agency

Updated quarterly

SETS PRP: EPA Environmental Protection Agency, National Technical Information Services

Updated when available

Federal IC / EC: EPA Environmental Protection Agency

Updated quarterly

Meth Labs: US DOJ U.S. Department of Justice

Updated when available

Vapor Intrusion: EPA Environmental Protection Agency

Updated when available

# Environmental FirstSearch Street Name Report for Streets within .25 Mile(s) of Target Property

**Target Property:** 6TH AVE DENVER, CO 80219 JOB: US 6

Street Name	Dist/Dir	Street Name	Dist/Dir
6TH AVE	0.00		
Alcott St	0.02 NE		
Alley	0.03 SE		
Bryant St	0.00		
Canosa Ct	0.03 NE		
Dale Ct	0.03 NE 0.07 NW		
Decatur St	0.07 NW 0.11 SW		
Eliot St	0.11 3VV 0.04 NW		
Federal Blvd	0.04 111		
	0.00 0.23 SW		
Grove St			
Hazel Ct	0.17 NW		
Hooker St	0.09 NW		
1 25	0.00		
Irving St	0.05 NW		
Julian St	0.03 NW		
King St	0.07 SW		
Knox Ct	0.00		
Lowell Blvd	0.13 NW		
Meade St	0.2 SW		
N Seminole Rd	0.13 NE		
Osage St	0.12 SE		
Quivas St	0.06 SE		
Ramp	0.00		
Raritan Way	0.03 SE		
Seminole Rd	0.13 NE		
State Hwy 88	0.00		
Tejon St	0.24 NE		
Umatilla St	0.12 NE		
US Hwy 6	0.00		
US Hwy 85	0.00		
US Hwy 87	0.00		
Vallejo St	0.13 NE		
W 4th Ave	0.18 SW		
W 5th Ave	0.06 SW		
W 5th Pl	0.03 SE		
W 6th Ave	0.02 NE		
W 6th Avenue Frontage S	0.13 NW		
W 6th Avenue Fwy	0.00		
W 7th Ave	0.12 NE		
W 8th Ave	0.18 NE		
W 8th Byp	0.03 NW		
W Severn Pl	0.19 NW		
W Short Pl	0.17 SW		
Walkway	0.14 NE		
Wyandot St	0.24 SE		
Yuma St	0.11 SE		
	···· · · · ·		

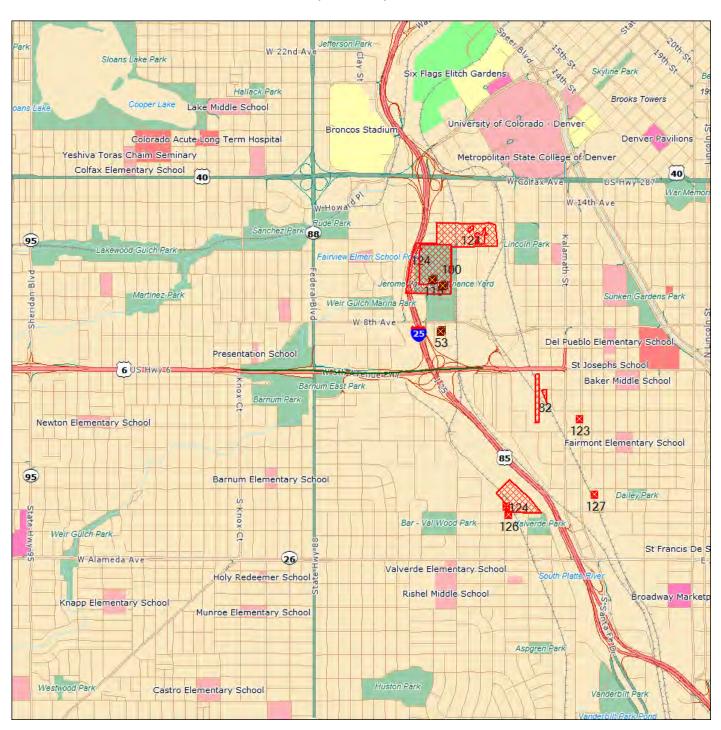


#### Environmental FirstSearch

1 Mile Radius from Line ASTM Map: NPL, RCRACOR, STATE Sites



6TH AVE, DENVER, CO 80219



#### Source: Tele Atlas

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

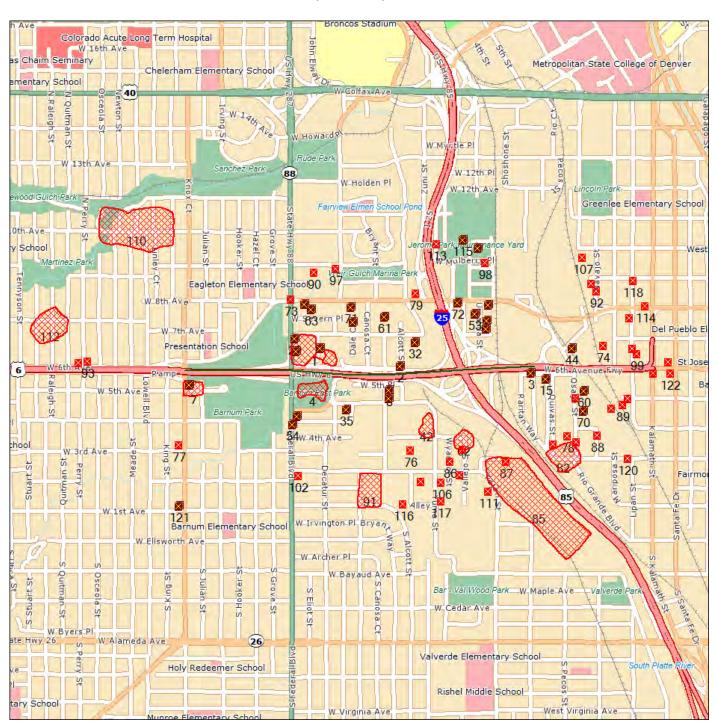


#### Environmental FirstSearch

.5 Mile Radius from Line ASTM Map: CERCLIS, RCRATSD, LUST, SWL



6TH AVE, DENVER, CO 80219



#### Source: Tele Atlas



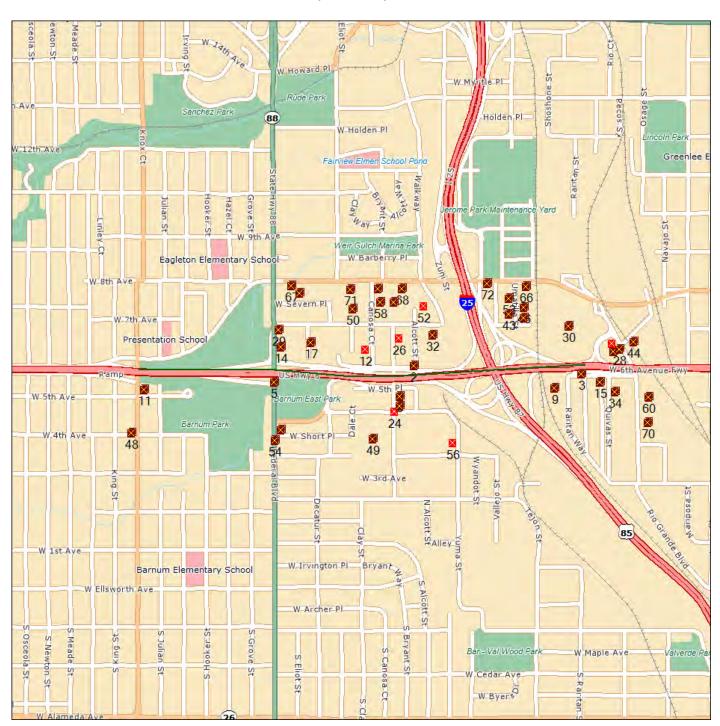
# W E

#### **Environmental FirstSearch**

.25 Mile Radius from Line ASTM Map: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS



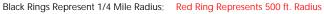
6TH AVE, DENVER, CO 80219



#### Source: Tele Atlas







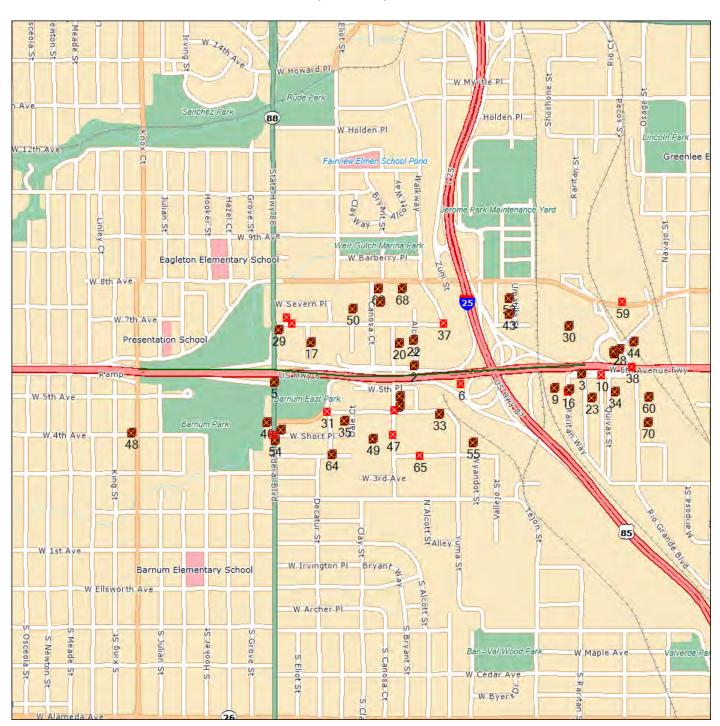


#### **Environmental FirstSearch**

.25 Mile Radius from Line Non-ASTM Map: Multiple Databases



6TH AVE, DENVER, CO 80219





# **APPENDIX B**

**Photo Log** 



Photo 1 (438 Federal Boulevard) – View of monitoring wells located in alley behind Conoco gas station

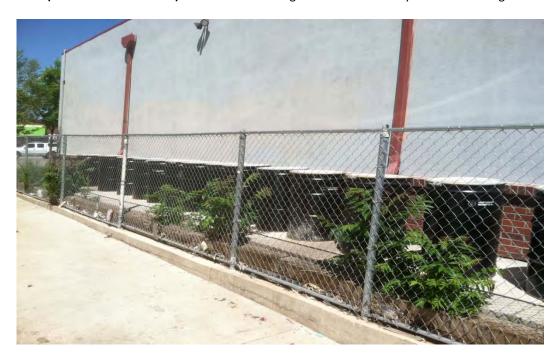


Photo 2 (438 Federal Boulevard) – View of 55-gallon drums located behind Conoco gas station building

# **APPENDIX C**

# **Limited Subsurface Investigation**

February 2012



February 14, 2012

Marvinetta Hartwig Hartwig & Associates 188 Inverness Drive West, Suite 675 Englewood, CO 80112

RE: Limited Subsurface Investigation and Temporary Groundwater Monitoring Well Installation, U.S. Highway 6 Bridges at Interstate 25, Denver, Colorado Olsson Associates Project #011-2359

Dear Ms. Hartwig,

The letter presents the observations and results from a limited subsurface investigation and temporary monitoring well construction performed in December 2011 and a groundwater sampling event performed in January 2012 conducted per Olsson Associate's July 2011 proposal and cost estimate. These activities were conducted in connection with the preconstruction and redevelopment of the U.S. Highway 6 Bridges between Interstate Highway 25 and Federal Boulevard in the City and County of Denver. All six of the temporary monitoring wells were located within the Colorado Department of Transportation (CDOT) right-of-way.

#### **Limited Subsurface Investigation**

The limited subsurface investigation was conducted on December 7, 9, 12, and 20, 2011 and coincided with the installation of the retaining wall geotechnical borings RW1-2, RW2-1, RW3-2, RW5-1, RW6-1, and RW7-1 as shown on Figure 1. The drilling of the retaining wall borings were overseen and logged by Rocksol, and the work was performed by Dakota Drilling, of Denver, Colorado. Olsson personnel also logged the borings to record the lithologies encountered and any evidence of petroleum hydrocarbon impact, evidence of chemical impacts, and the depth to groundwater.

Olsson personnel oversaw the installation and completion of the temporary groundwater monitoring wells in each of the retaining wall borings which were selected based on their location and expected depth that Rocksol needed to complete the geotechnical investigation. Soils collected for the geotechnical investigation were examined for evidence of staining or odor, and were screened using a photoionization detector (PID) to assess the presence of petroleum hydrocarbons. No evidence of significant petroleum hydrocarbon or chemical impacts was observed in any of the soil borings.

Soil samples were collected from the interval at or slightly above the groundwater table and also from the bottom of each boring. These were placed into laboratory provided glass sample jars and were submitted to ALS Laboratories in Houston, Texas for the analysis of the petroleum hydrocarbon constituents, benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Method SW 8260, total concentrations of the eight Resource Conservation and Recovery Act (RCRA) Metals by SW 6020/SW 7471A, and percent moisture by SW 3550. The sample jars were labeled with the date, time, analytical parameters, and were placed into plastic coolers and stored on ice. The soil samples were shipped to ALS Laboratories in Houston, Texas following chain-of-custody protocols and custody seals.

### **Soil Analytical Results**

The laboratory analytical results indicated that BTEX compound concentrations were not detected above the laboratory reporting limit in any of the soil samples, and with one exception were not detected above the method detection limit in the soil samples. Toluene was reported at an estimated concentration of 0.0097 mg/kg in the RW7-1 at 30 feet below ground surface (bgs). This toluene result is qualified with a "J" indicating that it was reported above the method detection limit, but is less than the laboratory reporting limit, and is well below the state regulatory limits for toluene in soils.

The BTEX and percent moisture results are shown on Table 1 and are compared to the Colorado Soil Evaluation Values (CSEV) established by the Colorado Department of Public Health and Environment (CDPHE) as soil cleanup standards (July 2011) as part of the Voluntary Cleanup Program. The most stringent soil cleanup standards are usually the residential soil standards which are based on toxicology data and potential routes of exposure.

The soil samples were also submitted for total metal concentrations of the eight RCRA metals. The results indicated that arsenic was detected in concentrations that exceed the residential soil standard in 9 of the 12 soil samples submitted. These arsenic concentrations may be due to naturally occurring arsenic in the soils. Estimated concentrations above the method detection limit (MDL) and at or slightly below the CSEV residential standard of 0.39 milligrams per kilogram (mg/kg) were reported in three of the samples. The highest arsenic concentration was 2.27 mg/kg in boring RW3-2 at 16 feet to 18 feet below ground surface (bgs).

The laboratory reported that concentrations of barium were detected in all 12 soil samples, but none of the concentrations exceed the residential soil standard of 15,000 mg/kg. The total barium results ranged from 6.5 mg/kg (RW2-1 at 21.5 to 22 ft) to 113 mg/kg (RW3-2 16 to 18 ft) Cadmium concentrations were reported above the MDL, but below the laboratory reporting limit in 9 of the 12 soil samples, and are qualified with a "J" as an estimated value. The laboratory reported that cadmium was not detected above the MDL in the three remaining soil samples, and all of the cadmium results are well below the CSEV residential soil standard of 70 mg/kg.

The laboratory reported that concentrations of chromium were detected in all 12 of the soil samples submitted from the six retaining wall/temporary monitoring well borings. The chromium concentrations ranged from 0.654 mg/kg (RW2-1 at 29 to 30 ft) to 8.20 mg/kg (RW7-1 at 30 ft), and are well below the CSEV residential soil limit of 120,000 mg/kg.

The laboratory reported that lead concentrations were detected in all 12 of the soil samples. The lead concentrations ranged from 1.17 mg/kg (RW2-1 at 29 to 30 ft) to 8.23 mg/kg (RW7-1 at 30 ft). The total lead concentrations are all well below the CSEV residential soil standard of 400 mg/kg.

The laboratory reported that total mercury was not detected in 8 of the 12 soil samples, and reported that mercury concentrations were estimated above the MDL in two of the soil samples. The concentrations that were reported above the laboratory reporting limit were 0.00505 mg/kg (RW3-2 at 16 to 18 ft) and 0.00824 mg/kg (RW7-1 at 30 ft), and are well below the CSEV residential soil standard for mercury of 13 mg/kg.

The laboratory reported concentrations of selenium were not detected in three of the soil samples and estimated values above the MDL, but below the reporting limit, were reported in three other soil samples. The laboratory reported that the remaining six soil samples had selenium concentrations that ranged from 0.486 mg/kg (RW2-1 21.5 to 22 ft) to 2.33 mg/kg (RW3-2 16 to 18 ft). These concentrations are all well below the CSEV residential soil standard for selenium of 390 mg/kg.

The laboratory reported that concentrations of silver were not detected in any of the 12 soil samples submitted. Therefore, silver does not appear to be an issue with any of the soils, and the laboratory reporting limit of approximately 0.5 mg/kg is well below the CSEV residential soil standard of 390 mg/kg.

#### **Temporary Groundwater Monitoring Well Installation**

Six temporary groundwater monitoring wells were installed in retaining wall geotechnical borings RW1-2, RW2-1, RW3-2, RW5-1, RW6-1, and RW7-1. The monitoring wells were constructed by Dakota Drilling with oversight from Olsson Associates. The temporary monitoring wells were constructed in accordance with the Colorado State Engineer's Office requirements.

A notice of intent was supposed to be filed with the Colorado State Engineer's Office three days prior to the drilling; however, this was not done due to an oversight. Olsson personnel did submit copies of the Well Construction and Test Reports to the Colorado State Engineer's Office after the fact.

The six borings were constructed as temporary groundwater monitoring wells, using 2-inch diameter schedule 40 polyvinyl chloride (PVC), 0.010-inch factory slotted screen, and 2-inch diameter schedule 40 PVC blank pipe casing. The total depths ranged from 25 feet bgs to 35 feet bgs. Approximately 15 feet to 20 feet of screen were used in each well. A threaded bottom cap was installed at the base of the screen section. The annulus around the screen from the bottom of the boring was filled with 10-20 Colorado Silica Sand.

The sand pack was brought up to two feet above the top of the well screen. The remaining annular space in the wells around the blank PVC pipe casing was filled with 3/8-diameter bentonite crumbles up to approximately one foot bgs. Potable water was used to hydrate the bentonite to form a seal in the well annulus. The PVC casing was capped with a locking, expandable J-plug. The top of each well was completed with a flush-mounted, traffic rated well box with a removable bolted cover. The well flush-mounted well box was grouted in place using quick setting concrete.

### **Groundwater Sampling**

Grab groundwater samples were collected from the six temporary monitoring wells on January 4, 2012. Prior to groundwater sampling, the depth to groundwater was measured using a water level indicator in each of the monitoring wells relative to the north side top of the PVC well casing. The depth to groundwater ranged from 17.01 feet bgs (RW2-1) to 29.71 ft bgs (RW5-1) Field parameters including temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential were measured in each of the wells. In accordance with Olsson's July 2011 proposal the monitoring wells were not developed, nor was groundwater purged from the wells, prior to sampling. Groundwater flow is expected to be directed toward and parallel the flow in the South Platte River, i.e. to the north-northeast.

The grab groundwater samples were collected using dedicated, disposable bailers and nylon rope. The samples were placed into laboratory provided containers and were shipped on ice to ALS Laboratories in Houston, Texas following chain-of-custody protocols and custody seals. The groundwater samples were submitted for laboratory analysis of BTEX by SW 8260, Oil & Grease E 1664, total concentrations of the 8 RCRA metals SW 6020/SW 7471A, pH by E150.1, Total Suspended Solids (TSS) M2540D, and E.Coli by SM 9221F. The E.Coli samples were analyzed by Industrial Laboratories in Wheat Ridge, Colorado.

#### **Groundwater Analytical Results**

The groundwater analytical results show that concentrations of the BTEX compounds were not detected above the MDL in any of the six groundwater samples. Concentrations of oil & grease were not detected above the MDL in two samples, but were estimated above the MDL in four of the six samples ranging from 0.0638 milligrams per liter (mg/L) (RW1-2) to 1.69 mg/L (RW2-1). All four of these results are qualified with a "J" value which indicates that they were detected above the MDL, but not the laboratory reporting limit. The Colorado Basic Standards for Groundwater have a limit of 10 mg/L for Oil & Grease.

The laboratory reported total metal concentrations arsenic, barium, chromium, lead, and selenium that exceed the Colorado Basic Groundwater Quality Standards in all 6 of the samples. The laboratory reported concentrations of cadmium in 3 of the 6 samples that exceed the Colorado Basic Groundwater Quality Standard of 0.005 mg/L. Concentrations of mercury were detected, but did not exceed the Colorado Basic Groundwater Quality Standard of 0.002 mg/L. Concentrations of silver were estimated above the MDL in 5 of the groundwater samples and were reported at 0.0112 mg/L in the sample from RW1-2. The concentrations of silver did not exceed the Colorado Basic Groundwater Quality Standard of 0.05 mg/L silver.

The pH readings were all qualified with an "H" meaning that they were analyzed outside of holding time since pH has an instantaneous holding time, and was also measured in the field. The pH results ranged from 6.38 (RW1-2) to 6.54 (RW2-1). Concentrations of TSS ranged from 10,800 mg/L (RW3-2) to 48,200 mg/L (RW7-1).

Industrial Laboratories reported concentrations of E.Coli bacteria in the "most probable number per milliliter" (MPN/ml). The laboratory report states that the analysis conforms to EPA 40CFR 136. The results in three of the samples were "Non-Detect" reported at < 2 MPN/ml (RW1-2, RW5-1, and RW6-1), two of the sample results were 4 MPN/ml (RW2-1 and RW3-1), and the highest count was 7 MPN/ml (RW7-1). These results are below CDPHE WQCD 5 CCR 1002-38 regulation for E. Coli which has limits of 126/100 ml.

#### Conclusions

The soil analytical results did not exceed the CSEV residential cleanup goals for any of the analytes except for arsenic. According to *Elements in North American Soils – Second Edition* (Dragun and Cherkiri, 2005) background arsenic in Colorado soils range from 1.3 part per million (ppm) to 16 ppm, and mean of 6.1 ppm. Colorado surface horizon soils ranged from 1.2 ppm to 24 ppm, with a mean of 5.4 ppm. One ppm is approximately equivalent to 1 mg/kg. Therefore, the arsenic concentrations appear to be within the range of natural background.

The groundwater results for BTEX compounds show that groundwater samples were not impacted. Concentrations of oil & grease were estimated above the MDL, but were below the laboratory reporting limit, and were well below 10 mg/L.

Total concentrations of the RCRA metals, arsenic, barium, cadmium, chromium, lead, and selenium, exceed the Colorado Basic Groundwater Standards in several or all six of the monitoring well samples. The wells were not developed or purged prior to sampling and were likely very turbid, which may have resulted in the elevated metals concentrations. The groundwater samples were not filtered. The TSS numbers are also very high which indicates that the groundwater sample turbidity was also high.

The highest results for several of the parameters were collected from monitoring wells RW7-1 and RW3-2 which were the two wells closest to the South Platte River. These wells were also completed into the top of bedrock (Denver Formation); whereas the other four wells were completed entirely within the South Platte alluvium. Developing the wells to remove sediment and then allowing a minimum of 24-hours before re-sampling could result in lower total metals concentrations, or filtering the samples in the field may be another option.

The elevated total metals concentrations could pose a problem for disposal if groundwater is encounter during excavation, and if excavation dewatering is required. The CDPHE WQCD may require that the water be treated prior to discharge if the water will go to the South Platte River. If no longer needed the temporary monitoring wells should be properly abandoned and well abandonment forms should be submitted to the Colorado State Engineer's Office.

Olsson appreciates this opportunity to be of service in performing this limited subsurface investigation and groundwater monitoring for Hartwig and Associates. Please contact me at (303) 237-2072 if you have any questions.

Sincerely,

**Olsson Associates** 

James W. Hix

James W. Hix Senior Geologist

Attachments

# TABLES

Soil Analytical Results - Volatiles U.S. 6 Bridges at I-25 and Bryant Street Denver, Colorado

Table 1

Sample ID and	Date	Benzene	Toluene	Ethylbenzene	Total	Percent
depth (feet)	Sampled	(mg/kg)	(mg/kg)	(mg/kg)	Xylenes	Moisture
					(mg/kg)	(wt%)
CSEV Table residential		1.2	4700	6	710	N/A
CSEV Table worker		1.6	24000	7.8	1000	N/A
CSEV Table GW Protection		0.17	50	100	75	N/A
RW1-2 @ 19ft	12/9/11	< 0.005	< 0.005	< 0.005	< 0.015	3.04
RW1-2 @ 25 ft	12/9/11	< 0.005	< 0.005	< 0.005	< 0.015	14.4
RW2-1 @ 21.5-22 ft	12/7/11	< 0.005	< 0.005	< 0.005	< 0.015	6.71
RW2-1 @ 29-30 ft	12/7/11	< 0.005	< 0.005	< 0.005	< 0.015	17.8
RW3-2 @ 16-18 ft	12/7/11	< 0.005	< 0.005	< 0.005	< 0.015	20.2
RW3-2 @ 20-21.5 ft	12/7/11	< 0.005	< 0.005	< 0.005	< 0.015	14.4
RW5-1 @ 26 ft	12/9/11	< 0.005	< 0.005	< 0.005	< 0.015	3.26
RW5-1 @ 35.5 ft	12/9/11	< 0.005	< 0.005	< 0.005	< 0.015	13.1
RW6-1 @ 26 ft	12/12/11	< 0.005	< 0.005	< 0.005	< 0.015	13.4
RW6-1 @ 31.5 ft	12/12/11	< 0.005	< 0.005	< 0.005	< 0.015	NR
RW7-1 @ 18 ft	12/20/11	< 0.005	< 0.005	< 0.005	< 0.015	3.86
RW7-1 @ 30 ft	12/20/11	< 0.005	0.0097 J	< 0.005	< 0.015	18.8

Notes: CSEV - Colorado Soil Evaluation Values, Colorado Department of Public Health and Environment (CDPHE) Soil Cleanup Standards (July 2011) mg/kg - milligrams per kilogram

< - Analyte not detected above the method detection limit (MDL)

N/A – not applicable
NR – not reported
Percent Moisture in Weight Percent (wt %)

Table 2

### Soil Analytical Results – Total RCRA Metals U.S. 6 Bridges at I-25 and Bryant Street Denver, Colorado

				· · · · · · · · · · · · · · · · · · ·			ı	T	
Sample ID and	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
depth (feet)	Sampled	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
CSEV Table		0.39	15000	70 120000		400	13	390	390
residential									
CSEV Table worker		1.6	160000	770	1500000	800	160	5100	5100
CSEV Table		0.22	44	0.11	2.2	1.1	0.025	0.44	1.1
leachate (mg/L)									
RW1-2 @ 19ft	12/9/11	0.683	22.0	0.0755 J	1.48	3.03	< 0.00358	0.545	< 0.463
RW1-2 @ 25 ft	12/9/11	0.551	14.9	0.0762 J	1.34	1.89	< 0.00351	0.575	< 0.469
RW2-1 @ 21.5-22 ft	12/7/11	0.345 J	6.50	0.0660 J	0.936	1.49	< 0.00343	0.486	< 0.442
RW2-1 @ 29-30 ft	12/7/11	0.509	14.2	0.0680 J	0.654	1.17	< 0.0034	0.299 J	< 0.437
RW3-2 @ 16-18 ft	12/7/11	2.27	113	0.169 J	8.20	6.15	0.00505	2.33	< 0.443
RW3-2 @ 20-21.5 ft	12/7/11	0.987	27.3	0.0859 J	2.50	4.04	0.00292 J	0.592	< 0.459
RW5-1 @ 26 ft	12/9/11	0.334 J	10.5	0.0753 J	1.13	1.91	< 0.00358	0.637	< 0.480
RW5-1 @ 35.5 ft	12/9/11	0.400 J	10.9	0.0707 J	1.02	1.36	< 0.00358	0.423 J	< 0.465
RW6-1 @ 26 ft	12/12/11	0.916	16.0	< 0.491	1.12	1.51	< 0.00345	0.304 J	< 0.491
RW6-1 @ 31.5 ft	12/12/11	0.547	12.2	< 0.469	1.82	1.59	0.000423 J	< 0.469	< 0.469
RW7-1 @ 18 ft	12/20/11	0.879	15.4	< 0.480	1.38	1.87	< 0.00345	< 0.480	< 0.480
RW7-1 @ 30 ft	12/20/11	0.900	93.5	0.0960 J	3.34	8.23	0.00824	< 0.463	< 0.463

Notes: CSEV - Colorado Soil Evaluation Values, Colorado Department of Public Health and Environment (CDPHE) Soil Cleanup Standards (July 2011)

Values in bold exceed the residential soil standard for arsenic.

mg/kg - milligrams per kilogram

mg/L - milligrams per liter (Leachate Value) (Total metal concentrations reported )

J - Estimated concentration reported above the method detection limit (MDL) but below the reporting limit (RL)

<sup>&</sup>lt; - Analyte not detected above the method detection limit (MDL)

Table 3

### Groundwater Analytical Results - Field Parameters U.S. 6 Bridges at I-25 and Bryant Street Denver, Colorado

Sample	Date	Depth to	Measuring	Approximate	Temper-	Dissolved	рН	Specific	ORP
ID	Sampled	Water	Point	Groundwater	ature (°C)	Oxygen	(s.u.)	Conductance	
		(ft-bgs)	Elevation (ft)	Elevation (ft)		(mg/L)		(mg/cm <sup>3</sup> )	
RW 1-2	01/04/2012	22.00	5214.27	5192.27	16.43	0.54	6.6	1.405	- 25.5
RW 2-1	01/04/2012	17.01	5209.19	5192.18	17.27	0.44	6.3	1.617	8.4
RW 3-2	01/04/2012	14.52	5208.11	5193.59	15.43	0.22	5.6	1.269	187.5
RW 5-1	01/04/2012	29.71	5222.43	5192.72	17.67	0.43	6.2	1.524	11.2
RW 6-1	01/04/2012	25.50	5218.23	5192.73	17.32	0.60	6.4	1.423	26.5
RW 7-1	01/04/2012	20.50	5214.10	5193.60	16.07	0.40	6.8	1.372	337.2

#### Notes:

Groundwater level measurements were taken using an oil/water interface probe. The groundwater elevations were calculated from survey elevation data provided by the Lund Partnership and Rocksol. Field parameter data was collected using a downhole YSI model 556 water quality meter.

Ft-bgs: Feet below ground surface (°C) – Temperature in degrees centigrade

Mg/L - milligrams per liter

s.u. – standard units of pH mg/cm³ - milligrams per cubic centimeter ORP – oxidation reduction potential

Table 4

### Groundwater Analytical Results – Petroleum Constituents U.S. 6 Bridges at I-25 and Bryant Street

#### Denver, Colorado

Sample ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Oil & Grease
	Sampled	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
5 CCR 1002-41 Regulation 41		0.005	1.0	0.70	10.0	N/A
5 CCR 1002-62 Regulation 62		N/A	N/A	N/A	N/A	10
CSEV 2011		0.005	0.56	0.70	1.4	N/A
RW 1-2	01/04/2012	< 0.005	< 0.005	< 0.005	< 0.015	0.638 J
RW 2-1	01/04/2012	< 0.005	< 0.005	< 0.005	< 0.015	1.69 J
RW 3-2	01/04/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 2.00
RW 5-1	01/04/2012	< 0.005	< 0.005	< 0.005	< 0.015	0.652 J
RW 6-1	01/04/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 2.00
RW 7-1	01/04/2012	< 0.005	< 0.005	< 0.005	< 0.015	0.682 J

#### Notes

5 CCR 1002-41 (Regulation 41) Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission - The Basic Standards for Groundwater, Amended October 2009, and 5 CCR 1002-62 (Regulation 62) Regulations for Effluent Limitations Amended February 2008 CSEV - Colorado Soil Evaluation Values, CDPHE July 2011

J – Estimated concentration of analyte above the method detection limit (MDL) but below the laboratory reporting limit (RL). N/A – Not Applicable

mg/L- milligrams per liter

<sup>&</sup>lt; - Analyte not detected above the method detection limit (MDL)

#### Table 5

# Groundwater Analytical Results – Total RCRA Metals U.S. 6 Bridges at I-25 and Bryant Street

#### Denver, Colorado

Sample	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
ID	Sampled	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
5 CCR 1002-41 Regulation 41		0.01	2.0	0.005	0.1	0.05	0.002	0.05	0.05
5 CCR 1002-38 Regulation 38		0.0002 (ch) 0.340 (ac)	2.0	0.005	0.050	0.05	0.01 (total)	0.05	0.05
CSEV 2011		0.01	2.0	0.005	0.1	0.05	0.0011	0.02	0.05
RW 1-2	01/04/2012	0.0994	11.4	0.00640	0.753	2.07	0.000833	0.0984	0.0112
RW 2-1	01/04/2012	0.0512	2.66	0.00329	0.282	0.348	0.000465	0.0312	0.00127 J
RW 3-2	01/04/2012	0.0784	4.25	0.00615	0.241	0.628	0.00137	0.0352	0.00194 J
RW 5-1	01/04/2012	0.0755	6.61	0.00377	0.293	0.576	0.000980	0.0652	0.00358 J
RW 6-1	01/04/2012	0.143	4.20	0.0093	0.549	0.425	0.00178	0.0708	0.00232 J
RW 7-1	01/04/2012	0.112	4.85	0.00486	0.270	0.360	0.00117	0.0518	0.00176 J

#### Notes

Colorado Department of Public Health and Environment (CDPHE) 5 CCR 1002-41 (Regulation 41) Water Quality Control Commission – The Basic Standards for Groundwater Amended. October 2009

CDPHE 5 CCR 1002-38 (Regulation 38) Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Amended June 13, 2011. The values are for the Upper South Platte River Basin, Stream Segment 14 – Main stem of the South Platte River from the outlet of Chatfield Reservoir to the Burlington Ditch diversion in Denver, Colorado. Arsenic (acute) = 0.340 mg/L (dissolved), Arsenic chronic = 0.0002 mg/L (total recoverable)\* CSEV – Colorado Soil Evaluation Values, Water Standard CDPHE - Water Standards (July 2011)

Values in bold exceed one or more of the Groundwater Standards. Therefore, if groundwater is encountered in excavations and results in dewatering, the groundwater may require treatment prior to discharge to surface waters to meet the standards. The depth to groundwater was approximately 20 feet below ground surface as measured in the six wells.

mg/L - milligrams per liter (Total metal concentrations were reported . These samples are grab samples without prior well development or sample filtration.)

J - Estimated concentration reported above the method detection limit (MDL) but below the reporting limit (RL)

< - Analyte not detected above the method detection limit (MDL)

(ac) acute (1-day)

(ch) chronic (30-day)

Trec - total recoverable metal concentration

\*The Colorado Department of Transporation (CDOT), the Regional Transportation District (RTD), and the City and County of Denver requested an emergency adoption of a revision to the water + fish arsenic standard for Segment 14 of the Upper South Platte River Basin in order to facilitate the issuance of Colorado Discharge Permit System (CDPS) permits to segment 14 with chronic arsenic effluent limitations that are achievable with current and reasonable treatment capabilities. The Commission found that he revision was necessary since achieving arsenic discharge permit limitation sthat result from the current arsenic standard appear to be technologically unachievable. CDOT, RTD, and the City and County of Denver have expended significant public funds for multiple projects attempting to comply with the limits. Therefore, the Commission adopted the emergency temporary modification for the chronic arsenic standard for Segment 14.

It is possible that the treatment used to achieve the arsenic limit would also result in lowering the concentrations of the other metals that exceed limits. Since the samples represent unfiltered grab samples from undeveloped monitoring wells, Olsson recommends that the wells be re-sampled and filtered for dissolved metal concentrations or that the wells be developed and re-sampled for total metal concentrations.

#### Table 6

# Groundwater Analytical Results – pH, TSS, and E. Coli U.S. 6 Bridges at I-25 and Bryant Street Denver, Colorado

Sample ID	Date	pH (s.u.)	Total Suspended Solids (mg/L)	E. Coli (MPN/ml)
	Sampled			
5 CCR 1002-41 Regulation 41		6.5 to 9.0	N/A	N/A
5 CCR 1002-38 Regulation 38		6.5 to 9.0	N/A	126/100 ml
5 CCR 1002-62 Regulation 62		6.0 to 9.0	45 mg/L (7-day) 30 mg/L (30-day)	N/A
CSEV 2011		N/A	N/A	N/A
RW 1-2	01/04/2012	6.38 (H)	38,100	< 2
RW 2-1	01/04/2012	6.54 (H)	14,700	4
RW 3-2	01/04/2012	6.50 (H)	10,800	4
RW 5-1	01/04/2012	6.36 (H)	19,200	< 2
RW 6-1	01/04/2012	6.33 (H)	30,400	< 2
RW 7-1	01/04/2012	6.39 (H)	48,200	7

#### Notes:

5 CCR 1002-41 (Regulation 41) Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission - The Basic Standards for Groundwater, Amended October 2009, and 5 CCR 1002-62 (Regulation 62) Regulations for Effluent Limitations Amended February 2008

CDPHE 5 CCR 1002-38 (Regulation 38) Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River

CDPHE 5 CCR 1002-38 (Regulation 38) Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Amended June 13, 2011. The values are for the Upper South Platte River Basin, Stream Segment 14 – Main stem of the South Platte River from the outlet of Chatfield Reservoir to the Burlington Ditch diversion in Denver, Colorado.

CDPHE 5 CCR 1002-62 (Regulation 62) Regulations for Effluent Limitations Amended February 2008

CSEV - Colorado Soil Evaluation Values, CDPHE July 2011

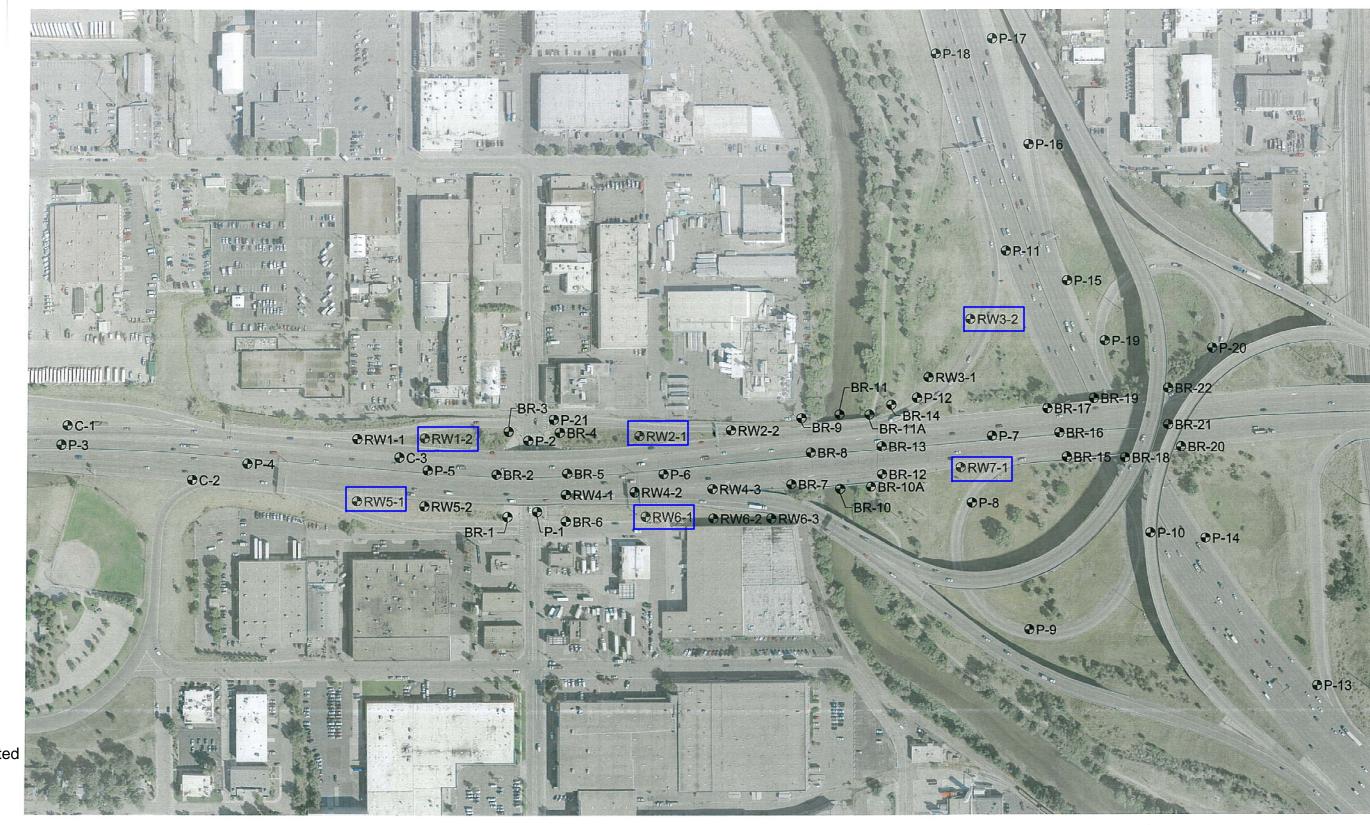
mg/L- milligrams per liter

N/A – Not Applicable E. Coli – Escherichia coli bacteria

MPN/ml – most probable number per milliliter

- < Analyte not detected above the method detection limit (MDL)
- J Analyte estimated concentration above the method detection limit (MDL) but below the laboratory reporting limit (RL).
- (H) Analyte was run outside of holding time. Since pH is temperature dependent, pH has an immediate sample hold time and should be measured in the field.

# FIGURE



# LEGEND: Geotech Boring Location

RW1-2

Retaining Wall Geotech Boring Location Completed as a Temporary Monitoring Well

# TEMPORARY GROUNDWATER MONITORING WELL LOCATIONS

PROJECT NO: 011-2359

DRAWN BY: JWH

DATE: 02/09/2012

U.S. Highway 6 Bridges Denver, Colorado



4690 Table Mountain Drive #200 Golden, CO 80403 TEL 303.237.2072 EXHIBIT 4

# ATTACHMENT A SOIL SAMPLE ANALYTICAL REPORTS



27-Dec-2011

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

Tel: (303) 237-3139 Fax: (303) 374-3139

Re: CDOT Highway 6 Bridge Work Order: 1112365

Dear James,

ALS Environmental received 9 samples on 10-Dec-2011 10:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 24.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Mary K. Knowles

atricia L. Lynch

Patricia L. Lynch Project Manager



ALS Environmental

Date: 49-Dec-11

Client: Olsson Associates

Project: CDOT Highway 6 Bridge Work Order Sample Summary

Work Order: 1112365

Lab Samp II	Client Sample ID	<u>Matrix</u>	Tag Number	<b>Collection Date</b>	Date Received Hold
1112365-01	RW3-2 @ 16-18ft	Soil		12/7/2011 10:45	12/10/2011 10:50
1112365-02	RW3-2 @ 20-21.5ft	Soil		12/7/2011 11:02	12/10/2011 10:50
1112365-03	RW2-1 @ 21.5-22ft	Soil		12/7/2011 13:30	12/10/2011 10:50
1112365-04	RW2-1 @ 29-30ft	Soil		12/7/2011 14:00	12/10/2011 10:50
1112365-05	RW1-2 @ 19ft	Soil		12/9/2011 09:50	12/10/2011 10:50
1112365-06	RW1-2 @ 25ft	Soil		12/9/2011 10:50	12/10/2011 10:50
1112365-07	RW5-1 @ 26ft	Soil		12/9/2011 12:35	12/10/2011 10:50
1112365-08	RW5-1 @ 35.5ft	Soil		12/9/2011 12:45	12/10/2011 10:50
1112365-09	Trip Blank 111411-28			12/9/2011 14:12	12/10/2011 10:50

ALS Environmental

Date: 27-Dec-11

Client: Olsson Associates

Project: CDOT Highway 6 Bridge Case Narrative

**Work Order:** 1112365

Batch 57604 Mercury, Sample 1112336-11A: MS/MSD is for an unrelated sample.

Batch 57637 Metals, Sample 1112412-21A: MS/MSD and DUP are for an unrelated sample.

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge
 Work Order:
 1112365

 Sample ID:
 RW3-2 @ 16-18ft
 Lab ID:
 1112365-01

 Collection Date:
 12/7/2011 10:45 AM
 Matrix:
 SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	A	Prep Date: 12/	14/2011 Analyst: JCJ
Mercury	5.05		3.59	μg/Kg	1	12/14/2011 07:09 PM
METALS			SW6020		Prep Date: 12/	15/2011 Analyst: IGF
Arsenic	2.27		0.443	mg/Kg	1	12/16/2011 06:03 AM
Barium	113		0.443	mg/Kg	1	12/16/2011 06:03 AM
Cadmium	0.169	J	0.443	mg/Kg	1	12/16/2011 06:03 AM
Chromium	8.20		0.443	mg/Kg	1	12/16/2011 06:03 AM
Lead	6.15		0.443	mg/Kg	1	12/16/2011 06:03 AM
Selenium	2.33		0.443	mg/Kg	1	12/16/2011 06:03 AM
Silver	U		0.443	mg/Kg	1	12/16/2011 06:03 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 11:22 AM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 11:22 AM
Toluene	U		5.0	μg/Kg	1	12/14/2011 11:22 AM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 11:22 AM
Surr: 1,2-Dichloroethane-d4	79.2		70-128	%REC	1	12/14/2011 11:22 AM
Surr: 4-Bromofluorobenzene	93.5		73-126	%REC	1	12/14/2011 11:22 AM
Surr: Dibromofluoromethane	84.5		71-128	%REC	1	12/14/2011 11:22 AM
Surr: Toluene-d8	93.9		73-127	%REC	1	12/14/2011 11:22 AM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	20.2		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge
 Work Order:
 1112365

 Sample ID:
 RW3-2 @ 20-21.5ft
 Lab ID:
 1112365-02

 Collection Date:
 12/7/2011 11:02 AM
 Matrix:
 SOIL

Analyses	Result	Qual	Report Limit 1	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	4	Prep Date: <b>12/</b> 1	<b>4/2011</b> Analyst: <b>JCJ</b>
Mercury	2.92	J	3.47	μg/Kg	1	12/14/2011 07:11 PM
METALS			SW6020		Prep Date: <b>12/1</b>	5/2011 Analyst: IGF
Arsenic	0.987		0.459	mg/Kg	1	12/16/2011 06:10 AM
Barium	27.3		0.459	mg/Kg	1	12/16/2011 06:10 AM
Cadmium	0.0859	J	0.459	mg/Kg	1	12/16/2011 06:10 AM
Chromium	2.50		0.459	mg/Kg	1	12/16/2011 06:10 AM
Lead	4.04		0.459	mg/Kg	1	12/16/2011 06:10 AM
Selenium	0.592		0.459	mg/Kg	1	12/16/2011 06:10 AM
Silver	U		0.459	mg/Kg	1	12/16/2011 06:10 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 11:49 AM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 11:49 AM
Toluene	U		5.0	μg/Kg	1	12/14/2011 11:49 AM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 11:49 AM
Surr: 1,2-Dichloroethane-d4	81.1		70-128	%REC	1	12/14/2011 11:49 AM
Surr: 4-Bromofluorobenzene	94.4		73-126	%REC	1	12/14/2011 11:49 AM
Surr: Dibromofluoromethane	91.8		71-128	%REC	1	12/14/2011 11:49 AM
Surr: Toluene-d8	96.6		73-127	%REC	1	12/14/2011 11:49 AM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	14.4		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge
 Work Order:
 1112365

 Sample ID:
 RW2-1 @ 21.5-22ft
 Lab ID:
 1112365-03

 Collection Date:
 12/7/2011 01:30 PM
 Matrix:
 SOIL

Analyses	Result	Qual	Report Limit U	U <b>nits</b>	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471A	\	Prep Date: <b>12/1</b>	<b>4/2011</b> Analyst: <b>JCJ</b>
Mercury	U		3.43	μg/Kg	1	12/14/2011 07:13 PM
METALS			SW6020		Prep Date: <b>12/1</b>	<b>5/2011</b> Analyst: <b>IGF</b>
Arsenic	0.345	J	0.442	mg/Kg	. 1	12/16/2011 06:45 AM
Barium	6.50		0.442	mg/Kg	1	12/16/2011 06:45 AM
Cadmium	0.0660	J	0.442	mg/Kg	1	12/16/2011 06:45 AM
Chromium	0.936		0.442	mg/Kg	1	12/16/2011 06:45 AM
Lead	1.49		0.442	mg/Kg	1	12/16/2011 06:45 AM
Selenium	0.486		0.442	mg/Kg	1	12/16/2011 06:45 AM
Silver	U		0.442	mg/Kg	1	12/16/2011 06:45 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 01:40 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 01:40 PM
Toluene	U		5.0	μg/Kg	1	12/14/2011 01:40 PM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 01:40 PM
Surr: 1,2-Dichloroethane-d4	81.5		70-128	%REC	1	12/14/2011 01:40 PM
Surr: 4-Bromofluorobenzene	95.4		73-126	%REC	1	12/14/2011 01:40 PM
Surr: Dibromofluoromethane	85.6		71-128	%REC	1	12/14/2011 01:40 PM
Surr: Toluene-d8	98.1		73-127	%REC	1	12/14/2011 01:40 PM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	6.71		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge
 Work Order:
 1112365

 Sample ID:
 RW2-1 @ 29-30ft
 Lab ID:
 1112365-04

 Collection Date:
 12/7/2011 02:00 PM
 Matrix:
 SOIL

Report Dilution Analyses Result **Date Analyzed** Limit Qual Units **Factor** Prep Date: 12/14/2011 **MERCURY - SW7471B** SW7471A Analyst: JCJ 12/14/2011 07:15 PM Mercury U 3.40 µg/Kg **METALS** SW6020 Prep Date: 12/15/2011 Analyst: IGF Arsenic 0.509 12/16/2011 06:52 AM 0.437 mg/Kg 1 **Barium** 14.2 0.437 mg/Kg 12/16/2011 06:52 AM Cadmium 0.0680 1 12/16/2011 06:52 AM J 0.437 mg/Kg Chromium mg/Kg 1 12/16/2011 06:52 AM 0.654 0.437 Lead 1.17 0.437 mg/Kg 1 12/16/2011 06:52 AM Selenium 0.299 0.437 mg/Kg 1 12/16/2011 06:52 AM Silver U 0.437 mg/Kg 1 12/16/2011 06:52 AM **VOLATILES** SW8260 Analyst: WLR U 1 Benzene 5.0 μg/Kg 12/14/2011 02:08 PM 5.0 Ethylbenzene U μg/Kg 1 12/14/2011 02:08 PM Toluene U 5.0 μg/Kg 1 12/14/2011 02:08 PM Xylenes, Total U 15 μg/Kg 1 12/14/2011 02:08 PM Surr: 1,2-Dichloroethane-d4 77.5 70-128 %REC 1 12/14/2011 02:08 PM Surr: 4-Bromofluorobenzene 98.8 73-126 %REC 1 12/14/2011 02:08 PM Surr: Dibromofluoromethane 87.3 71-128 %REC 12/14/2011 02:08 PM Surr: Toluene-d8 %REC 12/14/2011 02:08 PM 102 73-127 **MOISTURE** SW3550 Analyst: KAH **Percent Moisture** 17.8 0.0100 wt% 1 12/15/2011 03:20 PM

Date: 27-Dec-11

**Client:** Olsson Associates

**Project:** CDOT Highway 6 Bridge **Work Order:** 1112365

**Sample ID:** RW1-2 @ 19ft **Lab ID:** 1112365-05

Collection Date: 12/9/2011 09:50 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	4	Prep Date: <b>12/</b> 1	<b>4/2011</b> Analyst: <b>JCJ</b>
Mercury	U		3.58	μg/Kg	1	12/14/2011 07:17 PM
METALS			SW6020		Prep Date: <b>12/</b> 1	1 <b>5/2011</b> Analyst: <b>IGF</b>
Arsenic	0.683		0.463	mg/Kg	1	12/16/2011 06:58 AM
Barium	22.0		0.463	mg/Kg	1	12/16/2011 06:58 AM
Cadmium	0.0755	J	0.463	mg/Kg	1	12/16/2011 06:58 AM
Chromium	1.48		0.463	mg/Kg	1	12/16/2011 06:58 AM
Lead	3.03		0.463	mg/Kg	1	12/16/2011 06:58 AM
Selenium	0.545		0.463	mg/Kg	1	12/16/2011 06:58 AM
Silver	U		0.463	mg/Kg	1	12/16/2011 06:58 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 02:36 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 02:36 PM
Toluene	U		5.0	μg/Kg	1	12/14/2011 02:36 PM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 02:36 PM
Surr: 1,2-Dichloroethane-d4	80.1		70-128	%REC	1	12/14/2011 02:36 PM
Surr: 4-Bromofluorobenzene	96.3		73-126	%REC	1	12/14/2011 02:36 PM
Surr: Dibromofluoromethane	80.0		71-128	%REC	1	12/14/2011 02:36 PM
Surr: Toluene-d8	96.8		73-127	%REC	1	12/14/2011 02:36 PM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	3.04		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

**Project:** CDOT Highway 6 Bridge **Work Order:** 1112365

**Sample ID:** RW1-2 @ 25ft **Lab ID:** 1112365-06

Collection Date: 12/9/2011 10:50 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	A	Prep Date: <b>12/</b>	14/2011 Analyst: JCJ
Mercury	U		3.51	μg/Kg	1	12/14/2011 07:19 PM
METALS			SW6020		Prep Date: 12/	15/2011 Analyst: IGF
Arsenic	0.551		0.469	mg/Kg	. 1	12/16/2011 07:04 AM
Barium	14.9		0.469	mg/Kg	1	12/16/2011 07:04 AM
Cadmium	0.0762	J	0.469	mg/Kg	1	12/16/2011 07:04 AM
Chromium	1.34		0.469	mg/Kg	1	12/16/2011 07:04 AM
Lead	1.89		0.469	mg/Kg	1	12/16/2011 07:04 AM
Selenium	0.575		0.469	mg/Kg	1	12/16/2011 07:04 AM
Silver	U		0.469	mg/Kg	1	12/16/2011 07:04 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 03:04 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 03:04 PM
Toluene	U		5.0	μg/Kg	1	12/14/2011 03:04 PM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 03:04 PM
Surr: 1,2-Dichloroethane-d4	79.9		70-128		1	12/14/2011 03:04 PM
Surr: 4-Bromofluorobenzene	96.8		73-126	%REC	1	12/14/2011 03:04 PM
Surr: Dibromofluoromethane	92.5		71-128	%REC	1	12/14/2011 03:04 PM
Surr: Toluene-d8	98.2		73-127	%REC	1	12/14/2011 03:04 PM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	14.4		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge
 Work Order:
 1112365

 Sample ID:
 RW5-1 @ 26ft
 Lab ID:
 1112365-07

Collection Date: 12/9/2011 12:35 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	4	Prep Date: <b>12/</b> 1	14/2011 Analyst: JCJ
Mercury	U		3.58	μg/Kg	1	12/14/2011 07:21 PM
METALS			SW6020		Prep Date: <b>12/</b> 1	15/2011 Analyst: IGF
Arsenic	0.334	J	0.480	mg/Kg	. 1	12/16/2011 07:10 AM
Barium	10.5		0.480	mg/Kg	1	12/16/2011 07:10 AM
Cadmium	0.0753	J	0.480	mg/Kg	1	12/16/2011 07:10 AM
Chromium	1.13		0.480	mg/Kg	1	12/16/2011 07:10 AM
Lead	1.91		0.480	mg/Kg	1	12/16/2011 07:10 AM
Selenium	0.637		0.480	mg/Kg	1	12/16/2011 07:10 AM
Silver	U		0.480	mg/Kg	1	12/16/2011 07:10 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 03:31 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 03:31 PM
Toluene	U		5.0	μg/Kg	1	12/14/2011 03:31 PM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 03:31 PM
Surr: 1,2-Dichloroethane-d4	80.1		70-128	%REC	1	12/14/2011 03:31 PM
Surr: 4-Bromofluorobenzene	97.4		73-126	%REC	1	12/14/2011 03:31 PM
Surr: Dibromofluoromethane	91.2		71-128	%REC	1	12/14/2011 03:31 PM
Surr: Toluene-d8	97.4		73-127	%REC	1	12/14/2011 03:31 PM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	3.26		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge
 Work Order:
 1112365

 Sample ID:
 RW5-1 @ 35.5ft
 Lab ID:
 1112365-08

Collection Date: 12/9/2011 12:45 PM Matrix: SOIL

Analyses	Result	Qual	Report al Limit Units		Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	4	Prep Date: <b>12/1</b> 4	1/2011 Analyst: JCJ
Mercury	U		3.58	μg/Kg	1	12/14/2011 07:23 PM
METALS			SW6020		Prep Date: 12/15	5/2011 Analyst: IGF
Arsenic	0.400	J	0.465	mg/Kg	1	12/16/2011 07:16 AM
Barium	10.9		0.465	mg/Kg	1	12/16/2011 07:16 AM
Cadmium	0.0707	J	0.465	mg/Kg	1	12/16/2011 07:16 AM
Chromium	1.02		0.465	mg/Kg	1	12/16/2011 07:16 AM
Lead	1.36		0.465	mg/Kg	1	12/16/2011 07:16 AM
Selenium	0.423	J	0.465	mg/Kg	1	12/16/2011 07:16 AM
Silver	U		0.465	mg/Kg	1	12/16/2011 07:16 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/14/2011 03:59 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/14/2011 03:59 PM
Toluene	U		5.0	μg/Kg	1	12/14/2011 03:59 PM
Xylenes, Total	U		15	μg/Kg	1	12/14/2011 03:59 PM
Surr: 1,2-Dichloroethane-d4	80.9		70-128	%REC	1	12/14/2011 03:59 PM
Surr: 4-Bromofluorobenzene	98.8		73-126	%REC	1	12/14/2011 03:59 PM
Surr: Dibromofluoromethane	87.1		71-128	%REC	1	12/14/2011 03:59 PM
Surr: Toluene-d8	98.0		73-127	%REC	1	12/14/2011 03:59 PM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	13.1		0.0100	wt%	1	12/15/2011 03:20 PM

**Date:** 27-Dec-11

**Client:** Olsson Associates

**Project:** CDOT Highway 6 Bridge
 Work Order:
 1112365

 **Sample ID:** Trip Blank 111411-28
 **Lab ID:** 1112365-09

Collection Date: 12/9/2011 02:12 PM Matrix:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	12/16/2011 06:52 PM
Ethylbenzene	U		5.0	μg/L	1	12/16/2011 06:52 PM
Toluene	U		5.0	μg/L	1	12/16/2011 06:52 PM
Xylenes, Total	U		15	μg/L	1	12/16/2011 06:52 PM
Surr: 1,2-Dichloroethane-d4	89.1		70-125	%REC	1	12/16/2011 06:52 PM
Surr: 4-Bromofluorobenzene	90.7		72-125	%REC	1	12/16/2011 06:52 PM
Surr: Dibromofluoromethane	92.8		71-125	%REC	1	12/16/2011 06:52 PM
Surr: Toluene-d8	96.8		75-125	%REC	1	12/16/2011 06:52 PM

**Date:** 27-Dec-11

Date: 49-Dec-11

# QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

Batch ID: 5	7604	Instrument ID <b>HG02</b>		Method	: SW747	1A					
MBLK	Sample ID:	GBLKS4-121411-57604				Units: µ	g/Kg	Analys	sis Date: 1	2/14/2011	06:22 PM
Client ID:		Run	ID: <b>HG02</b> _	111214A		SeqNo: 2	628387	Prep Date: <b>12/</b> 1	14/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%RE	Control C Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		U	3.3								
LCS	Sample ID:	GLCSS4-121411-57604				Units: µ	g/Kg	Analys	is Date: 1	2/14/2011	06:24 PM
Client ID:		Run	ID: <b>HG02</b> _	111214A		SeqNo: 2	628388	Prep Date: <b>12/</b> 1	14/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%RE	Control C Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		352	3.3	333.3		0 10	6 85-115	0			
MS	Sample ID:	: 1112336-11AMS				Units: µ	g/Kg	Analys	sis Date: 1	2/14/2011	06:30 PM
Client ID:		Run ID: <b>HG02_111214A</b>				SeqNo: 2	628391	Prep Date: <b>12/</b> 1	14/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%RE	Control C Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		467.3	3.5	354	174	.9 82.	6 85-115	0			S
MSD	Sample ID:	: 1112336-11AMSD				Units: µ	g/Kg	Analys	sis Date: 1	2/14/2011	06:32 PM
Client ID:		Run	ID: <b>HG02</b> _	111214A		SeqNo: 2	628392	Prep Date: <b>12/</b> 1	14/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%RE	Control C Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		463	3.4	342.5	174	.9 84.	1 85-115	467.3	0.912	2 20	S
DUP	Sample ID:	: 1112336-11ADUP				Units: µ	g/Kg	Analys	sis Date: 1	2/14/2011	06:28 PM
Client ID:		Run	ID: <b>HG02</b> _	111214A		SeqNo: 2	628390	Prep Date: <b>12/</b> 1	14/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%RE	Control C Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		175.3	3.4	0		0	0	174.9	0.221	20	
The follow	ing samples	were analyzed in this batch:	11	12365-01B 12365-04B 12365-07B	11	12365-02E 12365-05E 12365-08E	3 11	12365-03B 12365-06B			

Note:

**Client:** Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

Batch ID: 57	7637 Instrument ID ICPMS03		Method	SW602	20						
MBLK	Sample ID: MBLKS2-121511-57637				Un	its: <b>mg/</b> l	Kg	Analy	sis Date: 1	2/15/2011	09:37 PN
Client ID:	Run	ID: ICPMS	03_111215A		Seql	No: <b>263</b> 0	0024	Prep Date: 12/	15/2011	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.50									
Barium	U	0.50									
Cadmium	U	0.50									
Chromium	U	0.50									
Lead	U	0.50									
Selenium	U	0.50									
Silver	U	0.50									
LCS	Sample ID: MLCSS2-121511-57637				Un	its: <b>mg/</b> l	Kg	Analy	sis Date: 1	2/15/2011	09:44 PM
Client ID:	Run	ID: ICPMS	03_111215A		SeqNo: <b>2630025</b>			Prep Date: 12/15/2011		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.524	0.50	10		0	95.2	80-120		)		
Barium	10.33	0.50	10		0	103	80-120		)		
Cadmium	10.39	0.50	10		0	104	80-120		)		
Chromium	9.512	0.50	10		0	95.1	80-120		)		
Lead	10.15	0.50	10		0	102	80-120		)		
Selenium	9.585	0.50	10		0	95.8	80-120	(	0		
Silver	9.247	0.50	10		0	92.5	80-120	(	)		
MS	Sample ID: <b>1112412-21BMS</b>				Un	its: <b>mg/</b> l	Kg	Analy	sis Date: 1	2/15/2011	10:08 PM
Client ID:	Run	ID: ICPMS	03_111215A		Seql	No: <b>263</b> 0	0029	Prep Date: 12/	15/2011	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.259	0.47	9.474	0.280	<b>17</b>	94.8	75-125	(	)		
Barium	36.29	0.47	9.474	28.7		79.5	75-125		)		
Cadmium	9.616	0.47	9.474	0.025		101	75-125		)		
Chromium	13.05	0.47	9.474	7.88		54.4	75-125		)		S
Lead	15.95	0.47	9.474	20.9		-52.7	75-125		)		S
Selenium	9.09	0.47	9.474	0.22		93.6	75-125		0		
Silver	8.842	0.47	9.474	-0.0836		94.2	75-125		)		

**Client:** Olsson Associates

Work Order: 1112365

CDOT Highway 6 Bridge **Project:** 

Batch ID: 57	7637 Instrument ID ICPMS03		Metho	d: <b>SW6020</b>						
MSD	Sample ID: <b>1112412-21BMSD</b>				Units: <b>mg/</b>	/Kg	Analysis Date: 12/15/2011 10:15 PM			
Client ID:	Ru	ın ID: ICPN	IS03_111215 <i>A</i>	A S	eqNo: <b>263</b>	0030	Prep Date: 12/1	5/2011	DF: <b>1</b>	
Analyte	Result	PQ	L SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.901	0.4	7 9.414	0.2807	91.6	75-125	9.259	3.94	25	
Barium	31.05	0.4	7 9.414	28.76	24.3	75-125	36.29	15.6	25	S
Cadmium	9.443	0.4	7 9.414	0.02573	100	75-125	9.616	1.82	25	
Chromium	10.65	0.4	7 9.414	7.888	29.3	75-125	13.05	20.2	25	S
Lead	12.1	0.4	7 9.414	20.95	-94	75-125	15.95	27.5	25	SR
Selenium	8.965	0.4	7 9.414	0.221	92.9	75-125	9.09	1.38	25	
Silver	8.591	0.4	7 9.414	-0.08362	92.1	75-125	8.842	2.89	25	
DUP	Sample ID: <b>1112412-21BDUP</b>				Units: <b>mg/</b>	/Kg	Analys	is Date: 12	2/15/2011	10:02 PM
Client ID:	Ru	ın ID: ICPN	IS03_111215 <i>A</i>	A S	SeqNo: 2630028			Prep Date: <b>12/15/2011</b>		
Analyta	Result	PQ	L SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Analyte	Result	PQ	L SPK Val		%KEU			%RPD		Quai
Arsenic	0.2831	0.4	8 0	0	0	0-0	0.2807	0	25	J
Barium	24.18	0.4	8 0	0	0	0-0	28.76	17.3	25	
Cadmium	U	0.4	8 0	0	0	0-0	0.02573	0	25	
Chromium	3.204	0.4	8 0	0	0	0-0	7.888	84.5	25	R
Lead	4.542	0.4	8 0	0	0	0-0	20.95	129	25	R
Selenium	0.2663	0.4	8 0	0	0	0-0	0.221	0	25	J
Silver	U	0.4	8 0	0	0	0-0	-0.08362	0	25	
The following	ng samples were analyzed in this bato	:h:	1112365-01B 1112365-04B 1112365-07B	1112	365-02B 365-05B 365-08B		12365-03B 12365-06B			

1112365-01B	1112365-02B	1112365-03B	
1112365-04B	1112365-05B	1112365-06B	
1112365-07B	1112365-08B		

**Client:** Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

Batch ID: R120596 Instrumer				d: <b>SW826</b>	_							
MBLK Sample ID: VBLKS1-12	1411-R120596				U	Inits: µg/k	(g	Analys	is Date: <b>12/14/2011 10:54 AN</b>			
Client ID:	Run I	D: <b>VOA3</b> _	111214A		SeqNo: <b>2628048</b>			Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	U	5.0										
Ethylbenzene	U	5.0										
Toluene	U	5.0										
Xylenes, Total	U	15										
Surr: 1,2-Dichloroethane-d4	39.31	0	50		0	78.6	70-128	0				
Surr: 4-Bromofluorobenzene	47.12	0	50		0	94.2	73-126	0				
Surr: Dibromofluoromethane	45.26	0	50		0	90.5	71-128	0				
Surr: Toluene-d8	48.87	0	50		0	97.7	73-127	0				
LCS Sample ID: VLCSS1-12	1411-R120596				U	Inits: µg/k	ζg	Analys	is Date: 12	/14/2011	08:36 AN	
Client ID:	Run I	D: <b>VOA3</b> _	111214A		SeqNo: <b>2628046</b>			Prep Date:				
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	43.06	5.0	50		0	86.1	79-120	0				
Ethylbenzene	44.76	5.0	50		0	89.5	80-122	0				
Toluene	45.13	5.0	50		0	90.3	79-120	0				
Xylenes, Total	132.3	15	150		0	88.2	80-120	0				
Surr: 1,2-Dichloroethane-d4	40.99	0	50		0	82	70-128	0				
Surr: 4-Bromofluorobenzene	50.34	0	50		0	101	73-126	0				
Surr: Dibromofluoromethane	48.1	0	50		0	96.2	71-128	0				
Surr: Toluene-d8	49.26	0	50		0	98.5	73-127	0				
LCSD Sample ID: VLCSDS1-	121411-R120596				U	Inits: µg/k	(q	Analys	is Date: 12	/14/2011	09:58 AN	
Client ID:	Run I	D: <b>VOA3</b> _	111214A		Se	qNo: <b>262</b> 8	3047	Prep Date:		DF: <b>1</b>		
				SPK Ref			Control	RPD Ref		RPD		
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual	
Benzene	48.19	5.0	50		0	96.4	79-120	43.06	11.3	30		
Ethylbenzene	48.17	5.0	50		0	96.3	80-122	44.76		30		
Toluene	48.36	5.0	50		0	96.7	79-120	45.13	6.91	30		
Xylenes, Total	144.7	15	150		0	96.5	80-120	132.3	8.92	30		
Surr: 1,2-Dichloroethane-d4	40.89	0	50		0	81.8	70-128	40.99	0.245	30		
Surr: 4-Bromofluorobenzene	48.91	0	50		0	97.8	73-126	50.34	2.88	30		
Surr: Dibromofluoromethane	43.68	0	50		0	87.4	71-128	48.1	9.63	30		
Surr: Toluene-d8	49.03	0	50		0	98.1	73-127	49.26	0.458	30		

Client: Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

Batch ID: R120596 Instrume	ent ID VOA3		Metho	d: <b>SW8260</b>						
MS Sample ID: 1112365-	01AMS				Units: µg/	Kg	Analys	is Date: 12	2/14/2011	12:17 PM
Client ID: RW3-2 @ 16-18ft	Run ID	: VOA3_	111214A	SeqNo: 2628050		8050	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.03	5.0	50	0	92.1	79-120	0			
Ethylbenzene	46.99	5.0	50	0		80-122	0			
Toluene	46.74	5.0	50	0	93.5	79-120	0			
Xylenes, Total	137.3	15	150	0	91.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	40.2	0	50	0	80.4	70-128	0			
Surr: 4-Bromofluorobenzene	48.52	0	50	0	97	73-126	0			
Surr: Dibromofluoromethane	42.29	0	50	0	84.6	71-128	0			
Surr: Toluene-d8	49.37	0	50	0	98.7	73-127	0			
MSD Sample ID: 1112365-	01AMSD				Units: µg/	Kg	Analys	is Date: 12	2/14/2011	12:45 PM
Client ID: RW3-2 @ 16-18ft	Run ID	: VOA3_	111214A	SeqNo: 2628051			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.99	5.0	50	0	98	79-120	46.03	6.22	30	
Ethylbenzene	48.73	5.0	50	0	97.5	80-122	46.99	3.62	30	
Toluene	49.19	5.0	50	0	98.4	79-120	46.74	5.1	30	
Xylenes, Total	144	15	150	0	96	80-120	137.3	4.74	30	
Surr: 1,2-Dichloroethane-d4	39.19	0	50	0	78.4	70-128	40.2	2.52	30	
Surr: 4-Bromofluorobenzene	49.68	0	50	0	99.4	73-126	48.52	2.37	30	
Surr: Dibromofluoromethane	46.34	0	50	0	92.7	71-128	42.29	9.16	30	
Surr: Toluene-d8	48.86	0	50	0	97.7	73-127	49.37	1.04	30	
The following samples were analy	zed in this batch:	11	12365-01A 12365-04A 12365-07A	1112	2365-02A 2365-05A 2365-08A		12365-03A 12365-06A			

**Client:** Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

Batch ID: R120728 Inst	rument ID VOA1		Metho	d: <b>SW826</b> 0	0							
MBLK Sample ID: VBLK	(W-121611-R120728				U	nits: µg/L		Analy	sis Date: 1	12/16/2011 10:11 AM		
Client ID:	Run II	D: <b>VOA1</b> _	111216B		Sec	qNo: <b>263</b> 1	1676	Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	U	5.0										
Ethylbenzene	U	5.0										
Toluene	U	5.0										
Xylenes, Total	U	15										
Surr: 1,2-Dichloroethane-d4	46.1	5.0	50		0	92.2	70-125		0			
Surr: 4-Bromofluorobenzene	45.04	5.0	50		0	90.1	72-125		0			
Surr: Dibromofluoromethane	45.67	5.0	50		0	91.3	71-125		0			
Surr: Toluene-d8	44.42	5.0	50		0	88.8	75-125	-	0			
LCS Sample ID: VLCS	W-121611-R120728				U	nits: µg/L		Analy	sis Date: 1	2/16/2011	09:45 AM	
Client ID:	Run II	D: <b>VOA1</b> _	111216B			qNo: <b>263</b> 1		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	45.06	5.0	50		0	90.1	73-121		0			
Ethylbenzene	49.99	5.0	50		0	100	80-120		0			
Toluene	45.58	5.0	50		0	91.2	80-120		0			
Xylenes, Total	148	15	150		0	98.7	80-120		0			
Surr: 1,2-Dichloroethane-d4	44.42	5.0	50		0	88.8	70-125		0			
Surr: 4-Bromofluorobenzene	46.09	5.0	50		0	92.2	72-125		0			
Surr: Dibromofluoromethane	47.57	5.0	50		0	95.1	71-125		0			
Surr: Toluene-d8	46.26	5.0	50		0	92.5	75-125		0			
MS Sample ID: 11124	130-01AMS				U	nits: µg/L	_	Analy	sis Date: 1	2/16/2011	03:25 PM	
Client ID:		D: <b>VOA1</b> _	111216B			qNo: <b>263</b> 1		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
					0		72 121					
Ethylbenzene	42.77 49.77	5.0 5.0	50 50		0	85.5 99.5	73-121 80-120		0 0			
Toluene	49.77 47.28	5.0	50		0	94.6	80-120		0			
Xylenes, Total	150.5	15	150		0	100	80-120		0			
Surr: 1,2-Dichloroethane-d4	43.58	5.0	50		0	87.2	70-125		0			
Surr: 4-Bromofluorobenzene	48.36	5.0	50		0	96.7	72-125		0			
Surr: Dibromofluoromethane	48.11	5.0	50 50		0	96.2	71-125		0			
Surr: Toluene-d8	48.14	5.0	50		0	96.3	75-125		0			

Note:

**Client:** Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

CDOT Ingliway o bridge

Batch ID: R	120728	Instrument ID VOA1		Method	: SW826	0						
MSD	Sample ID:	1112430-01AMSD				ι	Jnits: µg/L		Analys	is Date: <b>12</b>	/16/2011	03:51 PM
Client ID:		F	Run ID: <b>VOA1</b> _	111216B	SeqNo: 2631680			Prep Date: DF: 1				
Analyte		Resul	t PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		43.74	5.0	50		0	87.5	73-121	42.77	2.26	20	
Ethylbenzer	ne	46.09	5.0	50		0	92.2	80-120	49.77	7.69	20	
Toluene		43.26	5.0	50		0	86.5	80-120	47.28	8.86	20	
Xylenes, To	tal	137.1	15	150		0	91.4	80-120	150.5	9.36	20	
Surr: 1,2-	Dichloroetha	ne-d4 43.06	5.0	50		0	86.1	70-125	43.58	1.2	20	
Surr: 4-B	romofluorobe	nzene 45.78	5.0	50		0	91.6	72-125	48.36	5.47	20	
Surr: Dib	romofluorome	ethane 46.71	5.0	50		0	93.4	71-125	48.11	2.94	20	
Surr: Tol	uene-d8	45.43	3 5.0	50		0	90.9	75-125	48.14	5.78	20	

The following samples were analyzed in this batch:

1112365-09A

QC BATCH REPORT

**Client:** Olsson Associates

**Work Order:** 1112365

**Project:** CDOT Highway 6 Bridge

QC BATCH REPORT

Batch ID: R	120688	Instrument ID Ba	alance1		Metho	d: <b>SW35</b> 5	50						
DUP	Sample ID:	1112380-01CDUP	)				L	Jnits: wt%	)	Analysi	s Date: 12	2/15/2011	03:20 PM
Client ID:			Run ID	: BALAN	ICE1_11121	5G	Se	qNo: <b>263</b> 0	0868	Prep Date:		DF: <b>1</b>	
Analyte			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moi	sture		14.94	0.010	0		0	0	0-0	15.85	5.86	20	
The followi	ng samples v	were analyzed in t	his batch:	11	12365-01B 112365-04B 112365-07B	11	123	65-02B 65-05B 65-08B		12365-03B 12365-06B			

ALS Environmental

Date: 19-Dec-11

Client: Olsson Associates QUALIFIERS,

Project: CDOT Highway 6 Bridge
WorkOrder: 1112365

CDOT Highway 6 Bridge
ACRONYMS, UNITS

Qualifier **Description** Value exceeds Regulatory Limit Not accredited a В Analyte detected in the associated Method Blank above the Reporting Limit Ε Value above quantitation range Analyzed outside of Holding Time Η J Analyte detected below quantitation limit M Manually integrated, see raw data for justification Not offered for accreditation n ND Not Detected at the Reporting Limit O Sample amount is > 4 times amount spiked P Dual Column results percent difference > 40% R RPD above laboratory control limit S Spike Recovery outside laboratory control limits U Analyzed but not detected above the MDL **Acronym** Description DCS **Detectability Check Study** DUP Method Duplicate LCS Laboratory Control Sample LCSD Laboratory Control Sample Duplicate **MBLK** Method Blank MDL Method Detection Limit MQL Method Quantitation Limit MS Matrix Spike MSD Matrix Spike Duplicate PDS Post Digestion Spike **PQL Practical Quantitation Limit** SD Serial Dilution SDL Sample Detection Limit **TRRP** Texas Risk Reduction Program **Units Reported Description**  $\mu g/Kg$ Micrograms per Kilogram  $\mu g/L$ Micrograms per Liter mg/Kg Milligrams per Kilogram wt%



**Chain of Custody Form** 

Page

COC ID:

OLSSON ASSOC - GOLDEN: Olsson Associates

Project: CDOT US 6 Bridges

TOTAL DESCRIPTION OF THE PROPERTY OF THE PROPE	

						ALS Project Manager:														
	No. of the Control of	Customer Informat	ion		-tan50	Projec	t Informat	ion								100mm			The state of the s	
Pur	chase Order			Project	Name		Highway 6 E			A	BTEX	(8260)		**************************************		-				
	Work Order			Project N	umber	011-2359 200 200002				B Total Metals (6020/7000) RCRA8										
Con	npany Name	Olsson Associates		Bill To Cor	npany	Olsson Associates				С										
Ser	d Report To	James Hix		Invoid	e Attn	James	Hix			ם										
	Address	4690 Table Mountain Drive Address Suite 200				4690 Table Mountain Drive Suite 200				E F										
Ci	ty/State/Zip	Golden, CO 80403		Gity/Sta	Goldei	n, CO 8040:	3		G											
	Phone (303) 237-2072 Phone				Phone	(303)	237-2072			н	-									
	Fax	(303) 237-2659			Fax	(303)	237-2659	-		1										
e-N	fail Address			e-Mail Ad	dress					J						err sales				. :
No.		Sample Description	n paragraph	Date	1	Time	Matrix	Pres.	# Bottles	A	В	С	D	E	F	G	н	ı	J	Hold
1	RW3-	2@16-18	3F+	12/7/11	10:	45	S	, ,		1	V		-							
2.	RW3	-2@,20-2	11.5 ft	12/7/11		102	S	-		V	V	1		-					-	-
3	RWZ	-1@21.5	-22ft	12/7/11	13	130	5			V,	1								-	
3 4 5	RW2	-1@29-	30 ft	12/1/11	14	:00	5	J. Y. L.		<b>V</b>										
5	RW1	-2019f	<b>+</b>	12/9/11	00	7:50	5		# # # # # # # # # # # # # # # # # # #	V			ă.	7 -						
6 7 8	RW1-	-2025F	+	12/9/1	10	105	5			V	1 V 1									
7	RW5	-1@26!	C+	12/9/11	13	1:35	S			V	1									
8	RW5	-1@35.5.	SFT	12/9/1	1 10	1:45	S				1					-		Ta.		
9	1114	11-28 (11	ip Blank)	12/9/11		1112	W			V										-
10		<b>,</b> ,			,															
Sampler(s) Please Print & Sign,  James W. Hix Tames W. Hix Fed &  Relinquished by:  Date:   12/9/11   Time:   14:20   Rec					d-E)	thod Required Turnaround Time: (C  ✓ Std 10 WK Days						Othe 2 Wi	r K Days		24 Hour	Re	esults D	ue Dat	<b>e:</b>	
Relinquished by:  Date: Time: 14:20 Received to the second state of the second state o					'   /	ived by:	FedE	X		Notes:	11	D Day T	AT							
Relinquished by: Date: Time: Regen				ived by (La	boratory):	105		Cooler ID Cooler Temp.				Package			- Interest		CheckList			
V			ked by (Laboratory):				3743.				Level II Std QC TRRP CheckList Level II Std QCRaw Data TRRP Level IV Level IV SW846/CLP									
Pres	ervative Key:	1-HCI 2-HNO <sub>3</sub>	3-H <sub>2</sub> SO <sub>4</sub> 4-Na	aOH 5-Na₂S	<sub>2</sub> U <sub>3</sub> (	5-NaHSO	<sub>4</sub> 7-Othe	r 8-4°C	9-5035			<b>J</b>			Other	/EDD_	ACT THE COLUMN AND ADDRESS OF		Annual States	

Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 The Chain of Custody is a legal document. All information must be completed accountable.

Copyright 2011 by ALS Environmental.

#### Sample Receipt Checklist

Client Name:	OLSSON ASSOC - GOLDEN				Date/Time	Received:	<u>10-De</u>	ec-11 10	<u>0:50</u>	
Work Order:	<u>1112365</u>				Received b	y:	<u>PMG</u>			
Checklist comp	eSignature		Dec-11 Date	<u> </u>	Reviewed by:	Patricia eSignature	£0	Lynch		27-Dec-11 Date
Matrices: Carrier name:	soil/water ALS.HS									
Shipping contai	iner/cooler in good condition?		Yes	✓	No 🗌	Not Pres	ent			
Custody seals i	intact on shipping container/coole	r?	Yes	✓	No 🗆	Not Pres	ent			
Custody seals i	intact on sample bottles?		Yes		No 🗌	Not Pres	ent	<b>✓</b>		
Chain of custoo	dy present?		Yes	<b>✓</b>	No 🗌					
Chain of custoo	dy signed when relinquished and i	received?	Yes	<b>✓</b>	No 🗌					
Chain of custoo	dy agrees with sample labels?		Yes	<b>✓</b>	No 🗆					
Samples in pro	per container/bottle?		Yes	<b>✓</b>	No 🗆					
Sample contain	ners intact?		Yes	<b>✓</b>	No 🗆					
Sufficient samp	ole volume for indicated test?		Yes	<b>✓</b>	No 🗆					
All samples rec	eived within holding time?		Yes	<b>✓</b>	No 🗌					
Container/Temp	p Blank temperature in complianc	e?	Yes	<b>✓</b>	No 🗆					
Temperature(s)	)/Thermometer(s):		<u>2.1 C</u>			00	2			
Cooler(s)/Kit(s)	:									
Water - VOA vi	als have zero headspace?		Yes	<b>✓</b>	No 🗆	No VOA vials	subm	itted		
Water - pH acc	eptable upon receipt?		Yes	<b>✓</b>	No 🗆	N/A				
pH adjusted? pH adjusted by	:		Yes -		No 🗹	N/A				
Login Notes:										
						- — — — —				
						- — — — —				
Client Contacte	ed:	Date Contacted:			Person	Contacted:				
Contacted By:		Regarding:								
Comments:										
CorrectiveActio	n:									



10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887 Date: 10 Name: / Compa/ CUSTODY SEAL

SIAMOS HIX OLESON ASSOC Seal Broken By:

<b>A</b>	
APA.	
(ALS)	

#### ALS Environmental

10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887 **CUSTODY SEAL** 

Date: | 2/9/11 Time: | 4 20
Name: Tames Hix
Compan y: 014500 Assiciates

Seal Broken By:

Date:

te	mo hardon outr be touloat	FedEx Tracking Number	ДОПОСТ	
nder's ime	James	- g wantber	8989416	
Company	Olsson	Associates	المبالم الم	3 589-1572 3 837 2072
Address	4690 Ta olden	ble Mounta	un Di.	200
-	al Billing Referen		CO ZIP	Dept/Fidor/Suite/Noom
		1 2007	000	200000



2J-Dec-2011

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

Tel: (303) 237-3139 Fax: (303) 374-3139

Re: CDOT Highway 6 Bridge Work Work Order: 1112485

Dear James,

ALS Environmental received 3 samples on 14-Dec-2011 09:10 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 18.

atricia L. Lynch

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Mary K. Knowles

Patricia L. Lynch Project Manager



ALS Environmental

Date: 2; -Dec-11

Client: Olsson Associates

Project: CDOT Highway 6 Bridge Work Work Order Sample Summary

**Work Order: 1112485** 

Lab Samp ID	Client Sample ID	<u>Matrix</u>	Tag Number	<b>Collection Date</b>	Date Received	<u>Hold</u>
1112485-01	RW6-1@ 26ft	Soil		12/12/2011 11:14	12/14/2011 09:10	
1112485-02	RW6-1 @ 31.5ft	Soil		12/12/2011 11:25	12/14/2011 09:10	
1112485-03	TB 111411-08	Water		12/13/2011 08:21	12/14/2011 09:10	

ALS Environmental

Date: 29-Dec-11

Client: Olsson Associates

Project: CDOT Highway 6 Bridge Work Case Narrative

**Work Order:** 1112485

Batch 57708 Metals: MS/MSD is for an unrelated sample.

Batch 57753 Mercury: MS/MSD is for an unrelated sample.

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge Work
 Work Order:
 1112485

 Sample ID:
 RW6-1@ 26ft
 Lab ID:
 1112485-01

 Collection Date:
 12/12/2011 11:14 AM
 Matrix:
 SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	4	Prep Date: <b>12/21</b>	/2011 Analyst: JCJ
Mercury	U		3.45	μg/Kg	1	12/21/2011 03:33 PM
METALS			SW6020		Prep Date: 12/19	/2011 Analyst: IGF
Arsenic	0.916		0.491	mg/Kg	1	12/20/2011 10:13 AM
Barium	16.0		0.491	mg/Kg	1	12/20/2011 10:13 AM
Cadmium	U		0.491	mg/Kg	1	12/20/2011 10:13 AM
Chromium	1.12		0.491	mg/Kg	1	12/20/2011 10:13 AM
Lead	1.51		0.491	mg/Kg	1	12/20/2011 10:13 AM
Selenium	0.304	J	0.491	mg/Kg	1	12/20/2011 10:13 AM
Silver	U		0.491	mg/Kg	1	12/20/2011 10:13 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/16/2011 04:03 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/16/2011 04:03 PM
Toluene	U		5.0	μg/Kg	1	12/16/2011 04:03 PM
Xylenes, Total	U		15	μg/Kg	1	12/16/2011 04:03 PM
Surr: 1,2-Dichloroethane-d4	90.6		70-128		1	12/16/2011 04:03 PM
Surr: 4-Bromofluorobenzene	96.0		73-126	%REC	1	12/16/2011 04:03 PM
Surr: Dibromofluoromethane	86.7		71-128	%REC	1	12/16/2011 04:03 PM
Surr: Toluene-d8	94.9		73-127	%REC	1	12/16/2011 04:03 PM
MOISTURE			SW3550			Analyst: <b>KAH</b>
Percent Moisture	13.4		0.0100	wt%	1	12/19/2011 06:00 PM

**Date:** 2; -Dec-11

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge Work
 Work Order:
 1112485

 Sample ID:
 RW6-1 @ 31.5ft
 Lab ID:
 1112485-02

Collection Date: 12/12/2011 11:25 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY - SW7471B			SW7471	A	Prep Date: <b>12/21/201</b>	1 Analyst: JCJ
Mercury	0.423	J	3.51	μg/Kg	1	12/21/2011 03:40 PM
METALS			SW6020		Prep Date: 12/19/201	1 Analyst: IGF
Arsenic	0.547		0.469	mg/Kg	1	12/20/2011 10:20 AM
Barium	12.2		0.469	mg/Kg	1	12/20/2011 10:20 AM
Cadmium	U		0.469	mg/Kg	1	12/20/2011 10:20 AM
Chromium	1.82		0.469	mg/Kg	1	12/20/2011 10:20 AM
Lead	1.59		0.469	mg/Kg	1	12/20/2011 10:20 AM
Selenium	U		0.469	mg/Kg	1	12/20/2011 10:20 AM
Silver	U		0.469	mg/Kg	1	12/20/2011 10:20 AM
VOLATILES			SW8260			Analyst: WLR
Benzene	U		5.0	μg/Kg	1	12/16/2011 04:30 PM
Ethylbenzene	U		5.0	μg/Kg	1	12/16/2011 04:30 PM
Toluene	U		5.0	μg/Kg	1	12/16/2011 04:30 PM
Xylenes, Total	U		15	μg/Kg	1	12/16/2011 04:30 PM
Surr: 1,2-Dichloroethane-d4	90.8		70-128	%REC	1	12/16/2011 04:30 PM
Surr: 4-Bromofluorobenzene	95.9		73-126	%REC	1	12/16/2011 04:30 PM
Surr: Dibromofluoromethane	88.4		71-128	%REC	1	12/16/2011 04:30 PM
Surr: Toluene-d8	99.3		73-127	%REC	1	12/16/2011 04:30 PM

**Date:** 2; -Dec-11

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridge Work
 Work Order:
 1112485

 Sample ID:
 TB 111411-08
 Lab ID:
 1112485-03

 Collection Date:
 12/13/2011 08:21 AM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit 1	U <b>nits</b>	Dilution Factor	Date Analyzed
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	12/18/2011 08:33 PM
Ethylbenzene	U		5.0	μg/L	1	12/18/2011 08:33 PM
Toluene	U		5.0	μg/L	1	12/18/2011 08:33 PM
Xylenes, Total	U		15	μg/L	1	12/18/2011 08:33 PM
Surr: 1,2-Dichloroethane-d4	86.6		70-125	%REC	1	12/18/2011 08:33 PM
Surr: 4-Bromofluorobenzene	90.9		72-125	%REC	1	12/18/2011 08:33 PM
Surr: Dibromofluoromethane	89.5		71-125	%REC	1	12/18/2011 08:33 PM
Surr: Toluene-d8	94.1		75-125	%REC	1	12/18/2011 08:33 PM

**Date:** 2; -Dec-11

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

Date: 2; -Dec-11

**Client:** Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

# QC BATCH REPORT

Batch ID: 57	7708 Instrument ID I	CPMS04		Method	: SW602	20						
MBLK	Sample ID: MBLKS3-121911	-57708				U	Inits: <b>mg/</b> I	Kg	Analy	sis Date:	12/20/2011	01:17 PN
Client ID:		Run I	ID: ICPMS	04_111219A		Se	qNo: <b>263</b> 3	3966	Prep Date: 12/	19/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		U	0.50									
Barium		U	0.50									
Cadmium		U	0.50									
Chromium		U	0.50									
Lead		U	0.50									
Selenium		U	0.50									
Silver		U	0.50									
LCS	Sample ID: MLCSS3-121911	-57708				U	Inits: <b>mg/</b> I	Kg	Analy	sis Date:	12/20/2011	07:20 AN
Client ID:		Run I	ID: ICPMS	)4_111219A		SeqNo: 2633328 Prep Date: 12/19/2011			DF: <b>1</b>			
					SPK Ref			Control	RPD Ref		RPD	
Analyte		Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Arsenic		9.629	0.50	10		0	96.3	80-120	(	0		
Barium		10.36	0.50	10		0	104	80-120	(	)		
Cadmium		10.28	0.50	10		0	103	80-120	(	0		
Chromium		9.352	0.50	10		0	93.5	80-120	(	)		
Lead		10.81	0.50	10		0	108	80-120	(	0		
Selenium		9.161	0.50	10		0	91.6	80-120	(	0		
Silver		9.027	0.50	10		0	90.3	80-120	(	)		
MS	Sample ID: 1112446-06CMS					U	Inits: <b>mg/</b> I	Kg	Analy	sis Date:	12/20/2011	08:56 AN
Client ID:		Run I	ID: ICPMS	)4_111219A		Se	qNo: <b>263</b> 3	3343	Prep Date: 12/	19/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
												Quai
Arsenic		9.983	0.45	8.955	1.6		93.2	75-125		0		
Barium		61.59	0.45	8.955	26.		389	75-125		)		S
Cadmium		8.87	0.45	8.955	0.10		97.8	75-125		0		
Chromium		11.53	0.45	8.955	2.4		101	75-125		0		
Lead		20.81	0.45	8.955	8.3		139	75-125		0		S
Selenium		8.447	0.45	8.955	0.14		92.7	75-125		)		
Silver		9.018	0.45	8.955	0.006	14	101	75-125	(	0		

Client: Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

QC BATCH REPORT

Batch ID: 57	7708 Instrument ID IC	PMS04		Method	: SW6020						
MSD	Sample ID: <b>1112446-06CMSD</b>					Units: mg/	Kg	Analysi	s Date: 12	2/20/2011	09:03 AM
Client ID:		Run	ID: ICPMS	D: ICPMS04_111219A		SeqNo: <b>2633344</b>		Prep Date: 12/19/2011		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		10.24	0.44	8.875	1.633	97	75-125	9.983	2.54	25	
Barium		29.75	0.44	8.875	26.77	33.6	75-125	61.59	69.7	25	SR
Cadmium		9.198	0.44	8.875	0.1083	102	75-125	8.87	3.63	25	
Chromium		11.22	0.44	8.875	2.452	98.8	75-125	11.53	2.68	25	
Lead		22.66	0.44	8.875	8.331	162	75-125	20.81	8.52	25	S
Selenium		8.872	0.44	8.875	0.1467	98.3	75-125	8.447	4.91	25	
Silver		8.844	0.44	8.875	0.00614	99.6	75-125	9.018	1.94	25	
The followi	ng samples were analyzed in th	nis batch	: 11	12485-01B	1112	485-02B					

**Client:** Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

Batch ID: 57	<b>7753</b> Ins	strument ID <b>HG02</b>		Metho	d: <b>SW747</b>	1A					
MBLK	Sample ID: GBL	KS1-122111-57753				Units: µg/l	<b>(</b> g	Analys	is Date: 12	2/21/2011	01:55 PM
Client ID:		Run II	D: <b>HG02</b> _	111221A		SeqNo: <b>263</b>	5609	Prep Date: 12/2	1/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		U	3.3								
LCS	Sample ID: GLC	SS1-122111-57753				Units: µg/l	<b>(</b> g	Analys	is Date: 12	2/21/2011	01:57 PM
Client ID:		Run II	D: <b>HG02</b> _	111221A		SeqNo: <b>263</b>	5610	Prep Date: 12/2	1/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		344	3.3	333.3		0 103	85-115	0			
MS	Sample ID: 1112	503-01AMS				Units: µg/l	<b>(</b> g	Analys	is Date: 12	2/21/2011	02:28 PM
Client ID:	Run II		D: <b>HG02</b> _	111221A		SeqNo: <b>263</b>	5634	Prep Date: 12/2	1/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		847	3.6	355.9	38	38 129	85-115	0			SE
MSD	Sample ID: 1112	503-01AMSD				Units: µg/l	<b>(</b> g	Analys	is Date: 12	2/21/2011	02:51 PM
Client ID:		Run II	D: <b>HG02</b> _	111221A		SeqNo: <b>263</b>	5636	Prep Date: 12/2	1/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		771.4	3.6	357.1	38	38 107	85-115	847	9.34	20	E
DUP	Sample ID: 1112	503-01ADUP				Units: µg/l	<b>(</b> g	Analys	is Date: 12	2/21/2011	02:05 PM
Client ID:		Run II	D: <b>HG02</b> _	111221A		SeqNo: <b>263</b>	5612	Prep Date: 12/2	1/2011	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		382.8	3.6	0		0 0		388	1.35	20	
The followi	ing samples were a	analyzed in this batch:	11	112485-01B	11	12485-02B					

**Client:** Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

MPL V Sample ID: VPL VS4 42	4044 D400724					laita:/l/	7 m	Analys	io Doto: 42	14612044	02.26 DI
MBLK Sample ID: VBLKS1-12		D. 1/0.40				Jnits: µg/k	_		is Date: <b>12</b>		U3:36 PN
Client ID:	Run I	D: <b>VOA3</b> _	111216A		Se	qNo: <b>263</b> 1	780	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	42.56	0	50		0	85.1	70-128	0			
Surr: 4-Bromofluorobenzene	48.56	0	50		0	97.1	73-126	0			
Surr: Dibromofluoromethane	43.82	0	50		0	87.6	71-128	0			
Surr: Toluene-d8	48.21	0	50		0	96.4	73-127	0			
LCS Sample ID: VLCSS1-12	1811-R120731				L	Jnits: <b>µg/k</b>	ίg	Analys	is Date: 12	/16/2011	02:13 PN
Client ID:	Run I	D: <b>VOA3</b> _	111216A		Se	qNo: <b>263</b> 1	777	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.74	5.0	50		0	99.5	79-120	0			
Ethylbenzene	45.64	5.0	50		0	91.3	80-122	0			
Toluene	44.11	5.0	50		0	88.2	79-120	0			
Xylenes, Total	129.8	15	150		0	86.6	80-120	0			
Surr: 1,2-Dichloroethane-d4	51.03	0	50		0	102	70-128	0			
Surr: 4-Bromofluorobenzene	48.91	0	50		0	97.8	73-126	0			
Surr: Dibromofluoromethane	47.97	0	50		0	95.9	71-128	0			
Surr: Toluene-d8	49.09	0	50		0	98.2	73-127	0			
LCSD Sample ID: VLCSDS1-1	21811-R120731				l	Jnits: <b>µg/k</b>	(g	Analys	is Date: 12	/16/2011	02:41 PN
Client ID:	Run I	D: <b>VOA3</b> _	111216A			qNo: <b>263</b> 1		Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	52.12	5.0	50		0	104	79-120	49.74	4.67	30	
Ethylbenzene	48.58	5.0	50		0	97.2	80-122	45.64		30	
Toluene	46.65	5.0	50		0	93.3	79-120	44.11	5.59	30	
Xylenes, Total	140.4	15	150		0	93.6	80-120	129.8	7.78	30	
Surr: 1,2-Dichloroethane-d4	51	0	50		0	102	70-128	51.03		30	
Surr: 4-Bromofluorobenzene	49.54	0	50		0	99.1	73-126	48.91	1.28	30	
Surr: Dibromofluoromethane	47.95	0	50		0	95.9	71-128	47.97	0.0241	30	
Surr: Toluene-d8	48.15	0	50		0	96.3	73-127	49.09	1.93	30	-

**Client:** Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

Batch ID: R120731 Instrume	nt ID VOA3		Method	d: <b>SW8260</b>						
MS Sample ID: 1112485-0	1AMS				Units: µg	/Kg	Analysi	s Date: <b>12</b>	2/16/2011	04:58 PM
Client ID: RW6-1@ 26ft	Run II	D: <b>VOA3</b> _1	111216A	;	SeqNo: <b>26</b>	31785	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.45	5.0	50	(	94.9	79-120	0			
Ethylbenzene	45.51	5.0	50	(	91	80-122	0			
Toluene	45	5.0	50	(	90	79-120	0			
Xylenes, Total	126.3	15	150	(	84.2	80-120	0			
Surr: 1,2-Dichloroethane-d4	49.14	0	50	(	98.3	70-128	0			
Surr: 4-Bromofluorobenzene	49.7	0	50	(	99.4	73-126	0			
Surr: Dibromofluoromethane	44.64	0	50	(	89.3	71-128	0			
Surr: Toluene-d8	50.77	0	50	(	) 102	73-127	0			
MSD Sample ID: 1112485-0	1AMSD				Units: µg	/Kg	Analysi	s Date: <b>12</b>	/16/2011	05:25 PM
Client ID: RW6-1@ 26ft	Run II	D: <b>VOA3</b> _1	111216A	;	SeqNo: <b>26</b>	31786	Prep Date:		DF: <b>1</b>	
				SPK Ref		Control	RPD Ref Value	%RPD	RPD Limit	Qual
Analyte	Result	PQL	SPK Val	Value	%REC	, LIIIII		/0INFD		
Analyte Benzene	Result 49.81	PQL 5.0	SPK Val	value		79-120		4.85	30	
					99.6	•	47.45	74	30 30	
Benzene	49.81	5.0	50	(	99.6	79-120	47.45 45.51	4.85		
Benzene Ethylbenzene	49.81 48.89	5.0 5.0	50 50	(	99.6 97.8 95.3	79-120 80-122 79-120	47.45 45.51 45	4.85 7.18	30	
Benzene Ethylbenzene Toluene	49.81 48.89 47.67	5.0 5.0 5.0	50 50 50	(	99.6 97.8 95.3 90.2	79-120 80-122 79-120 80-120	47.45 45.51 45 126.3	4.85 7.18 5.77	30 30	
Benzene Ethylbenzene Toluene Xylenes, Total	49.81 48.89 47.67 135.2	5.0 5.0 5.0 15	50 50 50 150	(	99.6 97.8 95.3 90.2 94.3	79-120 80-122 79-120 80-120 70-128	47.45 45.51 45 126.3 49.14	4.85 7.18 5.77 6.87	30 30 30	
Benzene Ethylbenzene Toluene Xylenes, Total Surr: 1,2-Dichloroethane-d4	49.81 48.89 47.67 135.2 47.17	5.0 5.0 5.0 15	50 50 50 150 50	(	99.6 97.8 95.3 90.2 94.3 97.4	79-120 80-122 79-120 80-120 70-128 73-126	47.45 45.51 45 126.3 49.14 49.7	4.85 7.18 5.77 6.87 4.09	30 30 30 30	

**Client:** Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

Batch ID: R120733 Instrumen	t ID <b>VOA1</b>		Metho	d: <b>SW826</b>	0						
MBLK Sample ID: VBLKW-12	1811-R120733				U	nits: µg/L	-	Analy	sis Date: 1	2/18/2011	12:07 PN
Client ID:	Run II	D: <b>VOA1_</b>	111218A		Sec	qNo: <b>263</b> 1	1897	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	44.5	5.0	50		0	89	70-125		0		
Surr: 4-Bromofluorobenzene	46.61	5.0	50		0	93.2	72-125		0		
Surr: Dibromofluoromethane	<i>45.7</i> 9	5.0	50		0	91.6	71-125		0		
Surr: Toluene-d8	45.19	5.0	50		0	90.4	75-125		0		
LCS Sample ID: VLCSW-121	1811-R120733				U	nits: <b>µg/L</b>		Analy	sis Date: 1	2/18/2011	11:17 AM
Client ID:	Run II	D: <b>VOA1</b> _	111218A		Sec	qNo: <b>263</b> 1	1896	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.32	5.0	50		0	92.6	73-121		0		
Ethylbenzene	53.79	5.0	50		0	108	80-120		0		
Toluene	49.49	5.0	50		0	99	80-120		0		
Xylenes, Total	146	15	150		0	97.3	80-120		0		
Surr: 1,2-Dichloroethane-d4	46	5.0	50		0	92	70-125		0		
Surr: 4-Bromofluorobenzene	46.8	5.0	50		0	93.6	72-125		0		
Surr: Dibromofluoromethane	47.96	5.0	50		0	95.9	71-125		0		
Surr: Toluene-d8	47.98	5.0	50		0	96	75-125		0		
MS Sample ID: 1112250-09	AMS				U	nits: µg/L		Analy	sis Date: 1	2/18/2011	02:39 PM
Client ID:	Run II	D: <b>VOA1</b> _	111218A		Sec	qNo: <b>263</b> 1	1905	Prep Date:		DF: <b>1</b> 0	)
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	495.2	50	500	18.3	33	95.4	73-121		0		
Ethylbenzene	501.1	50	500	. 5.0	0	100	80-120		0		
Toluene	472.7	50	500		0	94.5	80-120		0		
Xylenes, Total	1530	150	1500		0	102	80-120		0		
Surr: 1,2-Dichloroethane-d4	423.7	50	500		0	84.7	70-125		0		
Surr: 4-Bromofluorobenzene	467.7	50	500		0	93.5	72-125		0		
Surr: Dibromofluoromethane	<i>4</i> 57	50	500		0	91.4	71-125		0		
Surr: Toluene-d8	470.6	50	500		0	94.1	75-125		0		

**Client:** Olsson Associates

Work Order: 1112485

**Project:** CDOT Highway 6 Bridge Work

Instrument ID VOA1

Batch ID: R	120733	nstrument ID VOA1		Metho	d: <b>SW8260</b>						
MSD	Sample ID: 11	12250-09AMSD				Units: µg/L		Analys	is Date: <b>12</b>	/18/2011	03:05 PM
Client ID:		Run	ID: VOA1_	111218A	S	eqNo: <b>263</b> ′	1907	Prep Date:		DF: <b>10</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		455.3	50	500	18.33	87.4	73-121	495.2	8.39	20	
Ethylbenzer	ne	499.5	50	500	0	99.9	80-120	501.1	0.322	20	
Toluene		454.2	50	500	0	90.8	80-120	472.7	3.98	20	
Xylenes, To	otal	1476	150	1500	0	98.4	80-120	1530	3.56	20	
Surr: 1,2-	-Dichloroethane-o	<i>457.6</i>	50	500	0	91.5	70-125	423.7	7.69	20	
Surr: 4-B	romofluorobenzei	ne 463.8	50	500	0	92.8	72-125	467.7	0.836	20	
Surr: Dib	romofluoromethai	ne 472.6	50	500	0	94.5	71-125	457	3.37	20	
Surr: Tol	uene-d8	448.7	50	500	0	89.7	75-125	470.6	4.76	20	

The following samples were analyzed in this batch:

1112485-03A

QC BATCH REPORT

**Client:** Olsson Associates

**Work Order:** 1112485

**Project:** CDOT Highway 6 Bridge Work

QC BATCH REPORT

Batch ID: R1	20806 Instrument ID	Balance1		Metho	d: <b>SW355</b>	0							
DUP	Sample ID: 1112453-19ADL	IP				ι	Jnits: wt%	ı	Analys	is Date: 12	2/19/2011	06:00 PM	
Client ID:		Run I	Run ID: BALANCE1_111219I			<b>SeqNo: 2633643</b>			Prep Date:		DF: <b>1</b>		
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Percent Mois	sture	51.86	0.010	0		0	0	0-0	53.83	3.74	20		

The following samples were analyzed in this batch:

1112485-01B

**ALS Environmental** Date: 21-Dec-11

**Client:** Olsson Associates

**QUALIFIERS,** CDOT Highway 6 Bridge Work **Project:** 

WorkOrder: 1112485 ACRONYMS, UNITS

Qualifier	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O P	Sample amount is > 4 times amount spiked  Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
<b>Units Reported</b>	<u>Description</u>
$\mu g/Kg$	Micrograms per Kilogram
μg/L	Micrograms per Liter
mg/Kg wt%	Milligrams per Kilogram



## **Chain of Custody Form**

COC ID: 48619

1112485

OLSSON ASSOC - GOLDEN: Olsson Associates

	vironmental		ALS Project Manager:						F	Project: CDOT US 6 Bridges					: ·		
. (	Customer Information		 Pro	AL ject Informati		wanager:											
Purchase Order		Project N	SWEDS SAID	DOT Highway 6 E			A	B'i ca	. (ozou		2000					1	·
Work Order	Quote 10 + 5134	Project Nun		1-2359 2		ላልላ ማ	В			(6020/7	יחחח/ ב	0000			-		
Company Name	Olssan Associates	Bill To Comp		sson Associates	00 20	0002	1000	IVIAI	IVICIAIS	(002011		CNAO	<u> </u>				
Send Report To	James Hix						C										
Sena Report 10		Invoice		mes Hix			D			-							
Address	4690 Table Mountain Drive Suite 200	Add	ress	i90 Table Mounta uite 200	in Drive		F		A7441			- 1111					
City/State/Zip	Golden, CO 80403	City/State	e/Zip G	olden, CO 80403	3	No. 1	G										
Phone	(303) 237-2072	Ph	none (3	03) 237-2072			Н										
Fax	(303) 237-2659		Fax (3	03) 237-2659	-		ı				<u></u>		: '				
e-Mail Address		AA e-Mail Add	ress				J	-				· · · · · · · · · · · · · · · · · · ·					<u> </u>
Vo.	Jux@ Occonbulting. Cor Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	В	С	D	Е	F	G	Н	1.	J	Hold
1 RW6	-1@26 ft	12/12/11	11:14	- S	ice	-2	V	V									
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Sampler(s) Please F	W. Hix Tarnes W. Hi)	( Fee	I - Ex		Std 10 W				Oth	er /K Days	TT:	24 Hour		esuits t	Jue Da		
Relinquished by:	Date: //2 ///	Time: 08:30	- 1	,	2 0.00 10 00		Notes		0 Day						EX.		
Relinquished by:	Print & Sign  V. Hix James W. Hi>  MES HiX Date: 13/11  Date: 13/11	108:50		ed - Ex y (Laboratory):	- 0		Co	oler ID	Coo	er Temp.	QC	Package	: (Chec	k One B	ox Belo	w)	1047
ogged by (Laboratory		Time:		Lrich - 11 / (Laboratory):	0910		7	/ N ==		The second secon	- F	Level			1 ,	-	RP CheckList
-ogged by (Eaboldtor)		I HIIIO.	Priecked by	r (Lastilatory).			129	180.			1 -			QC/Raw 846/CLP		TRF	RP Level IV
Preservative Key:	1-HCI 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-N	laOH 5-Na₂S₂O	a 6-Nah	ISO₄ 7-Other	8-4°C	9-5035			10000000			Other					

- ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
  2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
  - 3. The Chain of Custody is a legal document. All information must be completed accurately

#### Sample Receipt Checklist

Client Name: OLS	SSON ASSOC - GOLDEN				Date/Time I	Received:	<u>14-l</u>	Dec-11	<u>09:10</u>		
Work Order: 111	<u>2485</u>				Received b	y:	<u>PM</u>	<u>G</u>			
Checklist completed	I by Lohnnie B. Allen eSignature		16-Dec-11 Date	_	Reviewed by:	Patricia eSignature	4.0	Lynch	?	16-Dec	
	oil/water edEx	,				-				ı	
Shipping container/c	cooler in good condition?		Yes	<b>✓</b>	No 🗌	Not Pres	sent				
Custody seals intact	t on shipping container/cooler	?	Yes	<b>✓</b>	No 🗌	Not Pres	sent				
Custody seals intact	t on sample bottles?		Yes		No 🗌	Not Pres	sent	<b>✓</b>			
Chain of custody pre	esent?		Yes	<b>~</b>	No 🗌						
Chain of custody sig	ned when relinquished and re	eceived?	Yes	<b>✓</b>	No 🗌						
Chain of custody ag	rees with sample labels?		Yes	<b>✓</b>	No $\square$						
Samples in proper c	container/bottle?		Yes	<b>✓</b>	No 🗌						
Sample containers in	ntact?		Yes	<b>✓</b>	No 🗌						
Sufficient sample vo	olume for indicated test?		Yes	<b>✓</b>	No 🗌						
All samples received	d within holding time?		Yes	<b>~</b>	No $\square$						
Container/Temp Bla	ink temperature in compliance	?	Yes	<b>~</b>	No 🗆						
Temperature(s)/The	ermometer(s):		2.4 C			00	<u>)2</u>				
Cooler(s)/Kit(s):											
Water - VOA vials ha	ave zero headspace?		Yes	✓	No 🗆	No VOA via	ls sub	mitted			
Water - pH acceptat	ole upon receipt?		Yes	✓	No 🗌	N/A					
pH adjusted? pH adjusted by:			Yes		No 🗹	N/A					
Login Notes:											
		. — — — —				- — — —					
Client Contacted:		Date Contacted:			Person	Contacted:					
Contacted By:	F	Regarding:									
Comments:											
CorrectiveAction:											



10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

3480,

Date: Nam Cor

CUSTODY SEAL		Seal Broken By:
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our Inte	rnal Billing R	eference	011-					

Ma.



09-Jan-2012

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

(303) 237-3139 Tel: (303) 374-3139 Fax:

CDOT Highway 6 Bridge Work Work Order: 1112719 Re:

Dear James,

ALS Environmental received 2 samples on 22-Dec-2011 10:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 15.

atricia L. Lynch

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Yvan K. Ty

Patricia L. Lynch **Project Manager** 



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887 DOV#JURXS#XVD#FRUS##Sduw#ri#wkh#DOV#Oderudwru|#Jurxs##D#Fdpsehod#Eurwkhuv#Olplwhg#Frpsdq|

Environmental 🗦

www.alsglobal.com

ALS Environmental Date: 09-Jan-12

**Client:** Olsson Associates

Project: CDOT Highway 6 Bridge Work Work Order Sample Summary

Work Order: 1112719

<u>Lab Samp ID</u> <u>Client Sample ID</u>	<b>Matrix</b>	Tag Number	<b>Collection Date</b>	<b>Date Received</b>	<u>Hold</u>
1112719-01 RW 7-1@18ft	Soil		12/20/2011 12:50	12/22/2011 10:4	.5
1112719-02 RW 7-1@30ft	Soil		12/20/2011 13:20	12/22/2011 10:4	.5

ALS Environmental

Date: 09-Jan-12

Client: Olsson Associates

Project: CDOT Highway 6 Bridge Work Case Narrative

**Work Order:** 1112719

Batch 57849 Metals: MS/MSD is for an unrelated sample.

**Client:** Olsson Associates

**Project:** CDOT Highway 6 Bridge Work
 **Work Order:** 1112719

 **Sample ID:** RW 7-1@18ft
 **Lab ID:** 1112719-01

Collection Date: 12/20/2011 12:50 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit U	Units	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			SW747	IA			Analyst: <b>JCJ</b>
Mercury	U		3.45	μg/Kg	1	12/27/2011	12/27/2011 03:40 PM
METALS			SW6020	)			Analyst: IGF
Arsenic	0.879		0.480	mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
Barium	15.4		0.480	mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
Cadmium	U		0.480	mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
Chromium	1.38		0.480	mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
Lead	1.87			mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
Selenium	U			mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
Silver	U		0.480	mg/Kg	1	12/28/2011	12/30/2011 06:26 AM
VOLATILES			SW8260	)			Analyst: PC
Benzene	U		5.0	μg/Kg	1		12/30/2011 06:20 PM
Ethylbenzene	U		5.0	μg/Kg	1		12/30/2011 06:20 PM
Toluene	U		5.0	μg/Kg	1		12/30/2011 06:20 PM
Xylenes, Total	U		15	μg/Kg	1		12/30/2011 06:20 PM
Surr: 1,2-Dichloroethane-d4	99.5		70-128	%REC	1		12/30/2011 06:20 PM
Surr: 4-Bromofluorobenzene	99.0		73-126	%REC	1		12/30/2011 06:20 PM
Surr: Dibromofluoromethane	94.4		71-128	%REC	1		12/30/2011 06:20 PM
Surr: Toluene-d8	96.6		73-127	%REC	1		12/30/2011 06:20 PM
MOISTURE			SW3550	)			Analyst: <b>RPM</b>
Percent Moisture	3.86		0.0100	wt%	1		1/6/2012 06:30 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**Date:** 09-Jan-12

**Client:** Olsson Associates

**Project:** CDOT Highway 6 Bridge Work
 **Work Order:** 1112719

 **Sample ID:** RW 7-1@30ft
 **Lab ID:** 1112719-02

Collection Date: 12/20/2011 01:20 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	U <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B		SW7471A					Analyst: <b>JCJ</b>
Mercury	8.24		3.51	μg/Kg	1	12/27/2011	12/27/2011 03:42 PM
METALS			SW602	0			Analyst: IGF
Arsenic	0.900		0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
Barium	93.5		0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
Cadmium	0.0960	J	0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
Chromium	3.34		0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
Lead	8.23		0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
Selenium	U		0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
Silver	U		0.463	mg/Kg	1	12/28/2011	12/30/2011 08:18 AM
VOLATILES			SW826	0			Analyst: PC
Benzene	U		5.0	μg/Kg	1		12/30/2011 06:47 PM
Ethylbenzene	U		5.0	μg/Kg	1		12/30/2011 06:47 PM
Toluene	0.97	J	5.0	μg/Kg	1		12/30/2011 06:47 PM
Xylenes, Total	U		15	μg/Kg	1		12/30/2011 06:47 PM
Surr: 1,2-Dichloroethane-d4	103		70-128	%REC	1		12/30/2011 06:47 PM
Surr: 4-Bromofluorobenzene	98.1		73-126	%REC	1		12/30/2011 06:47 PM
Surr: Dibromofluoromethane	96.1		71-128	%REC	1		12/30/2011 06:47 PM
Surr: Toluene-d8	97.9		73-127	%REC	1		12/30/2011 06:47 PM
MOISTURE			SW355	0			Analyst: <b>RPM</b>
Percent Moisture	18.8		0.0100	wt%	1		1/6/2012 06:30 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**Date:** 09-Jan-12

Date: 09-Jan-12

Client: Olsson Associates

**Work Order:** 1112719

**Project:** CDOT Highway 6 Bridge Work

## QC BATCH REPORT

Batch ID: 57	7812 Instrument ID <b>HG02</b>		Metho	d: <b>SW747</b>	'1A					
MBLK	Sample ID: <b>GBLKS1-122711-57812</b>				Units: µg	/Kg	Analysi	s Date:	12/27/2011	02:22 PM
Client ID:	Rur	n ID: <b>HG02</b>	_111227A		SeqNo: <b>2638534</b> P		Prep Date: 12/2	DF: <b>1</b>		
Analyte	Result	PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	3.3	}							
LCS	Sample ID: <b>GLCSS1-122711-57812</b>				Units: µg	/Kg	Analysi	s Date:	12/27/2011	02:24 PM
Client ID:	Rur	n ID: <b>HG02</b>	_111227A		SeqNo: 26	38535	Prep Date: 12/2	7/2011	DF: <b>1</b>	
Analyte	Result	PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	342	3.3	333.3		0 103	85-115	0			
MS	Sample ID: <b>1112721-09AMS</b>				Units: µg	/Kg	Analysi	s Date:	12/27/2011	02:34 PM
Client ID:	Rur	n ID: <b>HG02</b>	_111227A		SeqNo: 26	38538	Prep Date: <b>12/2</b>	7/2011	DF: <b>1</b>	
Analyte	Result	PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	574.9	3.5	348.4	263	.9 89.3	85-115	0			
MSD	Sample ID: <b>1112721-09AMSD</b>				Units: µg	/Kg	Analysi	s Date:	12/27/2011	02:36 PM
Client ID:	Rur	n ID: <b>HG02</b>	_111227A		SeqNo: 26	38539	Prep Date: 12/2	7/2011	DF: <b>1</b>	
Analyte	Result	PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	575	3.4	341.9	263	.9 91	85-115	574.9	0.022	.6 20	
DUP	Sample ID: <b>1112721-09ADUP</b>				Units: µg	/Kg	Analysi	s Date:	12/27/2011	02:31 PM
Client ID:	Rur	n ID: <b>HG02</b>	_111227A		SeqNo: 26	38537	Prep Date: <b>12/2</b>	7/2011	DF: <b>1</b>	
Analyte	Result	PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	258	3.5	0		0 0		263.9	2.2	3 20	
The followi	ng samples were analyzed in this batcl	h:	1112719-01B	11	12719-02B					

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 1112719

**Project:** CDOT Highway 6 Bridge Work

Batch ID: 57	7849 Instrument ID ICPMS04		Method	: SW602	20					
MBLK	Sample ID: MBLKS2-122811-57849				Units: n	ng/Kg	Analy	/sis Date: 1	2/28/2011	11:59 PM
Client ID:	Rur	n ID: ICPMS	04_111227 <i>A</i>		SeqNo: 2	640876	Prep Date: 12	/28/2011	DF: <b>1</b>	
				SPK Ref		Contro	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value	%RE	C Limit	Value	%RPD	Limit	Qual
Barium	U	0.50								
Cadmium	U	0.50								
Chromium	U	0.50								
Lead	U	0.50								
Selenium	U	0.50								
MBLK	Sample ID: MBLKS2-122811-57849	Units: mg/Kg Analysis Date: 12/				2/29/2011	07:03 PM			
Client ID:	Rur	n ID: ICPMS	04_111229 <i>A</i>	1	SeqNo: 2	642145	Prep Date: 12	/28/2011	DF: <b>1</b>	
				SPK Ref		Contro			RPD	
Analyte	Result	PQL	SPK Val	Value	%RE	C Limit	Value	%RPD	Limit	Qual
Arsenic	U	0.50								
Arsenic Silver	U U	0.50 0.50								
					Units: n	ng/Kg	Analy	/sis Date: <b>1</b>	2/29/2011	12:05 AM
Silver	U Sample ID: <b>MLCSS2-122811-57849</b>		04_111227 <i>A</i>	<b>.</b>	Units: n	•	Analy Prep Date: <b>12</b>		<b>2/29/2011</b> DF: <b>1</b>	12:05 AM
Silver  LCS  Client ID:	U Sample ID: <b>MLCSS2-122811-57849</b>	0.50	<b>04_111227</b> <i>A</i> SPK Val	SPK Ref Value		640877 Contro	Prep Date: 12			<b>12:05 AM</b> Qual
Silver	U Sample ID: MLCSS2-122811-57849 Rur Result	0.50 n ID: ICPMS PQL		SPK Ref	SeqNo: 2	640877 Contro	Prep Date: 12  RPD Ref  Value	%RPD	DF: <b>1</b> RPD	
Silver  LCS  Client ID:  Analyte	U Sample ID: MLCSS2-122811-57849 Rur	0.50 n ID: <b>ICPMS</b>	SPK Val	SPK Ref	SeqNo: 2	640877  Contro C Limit 9 80-120	Prep Date: 12  RPD Ref  Value	2/28/2011	DF: <b>1</b> RPD	
Silver  LCS Client ID: Analyte Barium Cadmium	U Sample ID: MLCSS2-122811-57849 Rur Result 9.992	0.50 n ID: <b>ICPMS</b> PQL 0.50	SPK Val	SPK Ref	SeqNo: 2 %RE 0 99.	Contro C Limit 9 80-120 2 80-120	Prep Date: <b>12</b> RPD Ref  Value	%RPD 0	DF: <b>1</b> RPD	
Silver  LCS Client ID: Analyte Barium Cadmium Chromium	U Sample ID: MLCSS2-122811-57849 Rur  Result 9.992 9.924	0.50  PQL 0.50 0.50	SPK Val 10 10	SPK Ref	%RE 0 99. 0 99.	Contro C Limit 9 80-120 2 80-120 1 80-120	Prep Date: 12  RPD Ref  Value	%RPD 0	DF: <b>1</b> RPD	
Client ID:  Analyte Barium Cadmium Chromium Lead	U Sample ID: MLCSS2-122811-57849 Rur  Result 9.992 9.924 9.099	0.50  PQL 0.50 0.50 0.50	SPK Val 10 10	SPK Ref	%RE 0 99. 0 99. 0 99.	Contro C Limit 9 80-120 2 80-120 1 80-120 3 80-120	Prep Date: 12  RPD Ref Value	%RPD 0 0	DF: <b>1</b> RPD	
Client ID:  Analyte Barium Cadmium Chromium Lead	U Sample ID: MLCSS2-122811-57849 Rur  Result  9.992 9.924 9.099 10.32	0.50 PQL 0.50 0.50 0.50 0.50	SPK Val 10 10 10	SPK Ref	%RE 0 99. 0 99. 0 99. 0 10	Contro C Limit 9 80-120 2 80-120 1 80-120 3 80-120	Prep Date: 12  RPD Ref Value	%RPD 0 0 0 0	DF: 1 RPD Limit	Qual
Client ID:  Analyte Barium Cadmium Chromium Lead Selenium	Result 9.992 9.099 10.32 8.912  Sample ID: MLCSS2-122811-57849	0.50 PQL 0.50 0.50 0.50 0.50	SPK Val 10 10 10 10 10	SPK Ref Value	%RE 0 99. 0 99. 0 99. 0 10 0 89.	Contro C Limit 9 80-120 2 80-120 1 80-120 3 80-120 1 80-120	Prep Date: 12  RPD Ref Value	%RPD 0 0 0 0 0 0 vsis Date: 1	DF: 1 RPD Limit	Qual
Silver  LCS Client ID: Analyte Barium Cadmium Chromium Lead Selenium  LCS	Result 9.992 9.099 10.32 8.912  Sample ID: MLCSS2-122811-57849	0.50 PQL 0.50 0.50 0.50 0.50	SPK Val 10 10 10 10 10	SPK Ref Value	%RE 0 999. 0 990. 0 990. 0 10 0 890. Units: n	Contro C Limit 9 80-120 2 80-120 1 80-120 3 80-120 1 80-120 1 80-120 1 80-120	Prep Date: 12  RPD Ref Value   Analy Prep Date: 12	%RPD 0 0 0 0 0 0 vsis Date: 1	DF: 1 RPD Limit	Qual
Silver  LCS Client ID:  Analyte Barium Cadmium Chromium Lead Selenium  LCS Client ID:	Sample ID: MLCSS2-122811-57849 Rur  Result  9.992 9.924 9.099 10.32 8.912  Sample ID: MLCSS2-122811-57849 Rur	0.50 PQL 0.50 0.50 0.50 0.50 0.50	SPK Val 10 10 10 10 10 10	SPK Ref Value	%RE 0 99. 0 99. 0 99. 0 10 0 89. Units: n SeqNo: 2	Contro C Limit 9 80-120 2 80-120 1 80-120 1 80-120 1 80-120 1 80-120 1 Contro C Limit	Prep Date: 12  RPD Ref Value  Analy Prep Date: 12  RPD Ref Value	%RPD 0 0 0 0 0 0 vsis Date: 1	DF: 1  RPD Limit  2/29/2011  DF: 1  RPD	Qual 02:42 PM

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 1112719

**Project:** CDOT Highway 6 Bridge Work

Batch ID: 57	7849 Instrument ID ICPMS0	)4	Method	: SW6020						
MS	Sample ID: <b>1112774-04AMS</b>				Jnits: <b>mg/</b>	Kg	Analysi	s Date: 12	2/29/2011	03:48 AM
Client ID:	F	Run ID: ICPMS	604_111227A	Se	eqNo: <b>264</b> 0	0912	Prep Date: 12/2	8/2011	DF: 1	
				SPK Ref		Control	RPD Ref		RPD	
Analyte	Resul	t PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qual
Arsenic	8.81	1 0.46	9.274	1.369	80.2	75-125	0			
Barium	48.12	2 0.46	9.274	46.77	14.6	75-125	0			so
Cadmium	8.026	0.46	9.274	0.02746	86.2	75-125	0			
Chromium	11.5	5 0.46	9.274	4.04	80.4	75-125	0			
Lead	13.29	9 0.46	9.274	5.659	82.3	75-125	0			
Selenium	7.453	3 0.46	9.274	0.4762	75.2	75-125	0			
Silver	5.76	6 0.46	9.274	0.0133	62	75-125	0			S
MSD	Sample ID: <b>1112774-04AMSD</b>			1	Jnits: <b>mg/</b>	Kg	Analysi	s Date: 12	2/29/2011	03:55 AM
Client ID:	F	Run ID: ICPMS	604_111227A	Se	SeqNo: <b>2640913</b>		Prep Date: 12/28/2011		DF: <b>1</b>	
Analyte	Resul	t PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.599	9 0.46	9.223	1.369	78.4	75-125	8.81	2.43	25	
Barium	50.04		9.223	46.77	35.5	75-125	48.12	3.92	25	so
Cadmium	7.94	4 0.46	9.223	0.02746	85.8	75-125	8.026	1.07	25	
Chromium	11.49	0.46	9.223	4.04	80.7	75-125	11.5	0.111	25	
Lead	13.28	3 0.46	9.223	5.659	82.6	75-125	13.29	0.0967	25	
Selenium	7.51	1 0.46	9.223	0.4762	76.3	75-125	7.453	0.762	25	
Silver	5.991	1 0.46	9.223	0.0133	64.8	75-125	5.76	3.95	25	S
DUP	Sample ID: 1112774-04ADUP			1	Jnits: <b>mg/</b>	Kg	Analysi	s Date: 12	2/29/2011	03:42 AM
Client ID:	F	Run ID: ICPMS	604_111227A	Se	eqNo: <b>264</b> 0	0911	Prep Date: <b>12/2</b>	8/2011	DF: <b>1</b>	
		. 501		SPK Ref Value	0/550	Control Limit	RPD Ref Value	0/ 555	RPD Limit	01
Analyte	Resul	t PQL	SPK Val	Value	%REC	Liiiii	Value	%RPD		Qual
Arsenic	1.268	3 0.47	0	0	0	0-0	1.369	7.63	25	
Barium	44.57	7 0.47	0	0	0	0-0	46.77	4.82	25	
Cadmium	L	J 0.47	0	0	0	0-0	0.02746	0	25	
Chromium	4.153	3 0.47	0	0	0	0-0	4.04	2.75	25	
Lead	5.655	5 0.47	0	0	0	0-0	5.659	0.0592	25	
Selenium	0.4132	2 0.47	0	0	0	0-0	0.4762	0	25	J
Silver	L	J 0.47	0	0	0	0-0	0.0133	0	25	
The followi	ng samples were analyzed in this ba	itch:	112719-01B	1112	719-02B					
	· ·									

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 1112719

**Project:** CDOT Highway 6 Bridge Work

Batch ID: <b>R121198</b>	Instrument ID VOA3		Metho	d: <b>SW826</b>	0						
MBLK Sample ID: V	BLKS-123011-R121198				l	Jnits: µg/k	<b>(</b> g	Analys	is Date: 12	/30/2011	12:01 PM
Client ID:	Run	ID: VOA3_	111230A		Se	qNo: <b>264</b> 2	2923	Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-	-d4 51.39	0	50		0	103	70-128	0			
Surr: 4-Bromofluorobenze	ene 50.77	0	50		0	102	73-126	0			
Surr: Dibromofluorometha	ane 48.66	0	50		0	97.3	71-128	0			
Surr: Toluene-d8	50.38	0	50		0	101	73-127	0			
LCS Sample ID: V	LCSS-123011-R121198				ι	Jnits: µg/k	<b>(</b> g	Analys	is Date: 12	/30/2011	10:40 AM
Client ID:	ent ID: Run ID: VOA3_111				Se	qNo: <b>264</b> 2	2919	Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	50.29	5.0	50		0	101	79-120	0			
Ethylbenzene	51.45	5.0	50		0	103	80-122	0			
Toluene	52.6	5.0	50		0	105	79-120	0			
Xylenes, Total	153.9	15	150		0	103	80-120	0			
Surr: 1,2-Dichloroethane-	-d4 50.64	0	50		0	101	70-128	0			
Surr: 4-Bromofluorobenze	ene 51.66	0	50		0	103	73-126	0			
Surr: Dibromofluorometha	ane 54.99	0	50		0	110	71-128	0			
Surr: Toluene-d8	50.72	0	50		0	101	73-127	0			
LCSD Sample ID: V	LCSDS-123011-R121198				ι	Jnits: µg/k	<b>(</b> g	Analys	is Date: 12	/30/2011	11:07 AM
Client ID:	Run	ID: VOA3_	111230A		Se	qNo: <b>264</b> 2	2921	Prep Date:		DF: <b>1</b>	
Analyta	Decult	DOL	CDK Val	SPK Ref Value		0/ DEC	Control Limit	RPD Ref Value	0/ DDD	RPD Limit	Ougl
Analyte	Result	PQL	SPK Val	Value		%REC		Valuo	%RPD		Qual
Benzene	50.32	5.0	50		0	101	79-120	50.29	0.0659	30	
Ethylbenzene	51.53	5.0	50		0	103	80-122	51.45		30	
Toluene	52.21	5.0	50		0	104	79-120	52.6	0.73	30	
Xylenes, Total	154.9	15	150		0	103	80-120	153.9	0.622	30	
Surr: 1,2-Dichloroethane-		0	50		0	104	70-128			30	
Surr: 4-Bromofluorobenze		0	50		0	104	73-126		0.389	30	
Surr: Dibromofluorometha		0	50		0	100	71-128		9.5	30	
Surr: Toluene-d8	52.78	0	50		0	106	73-127	50.72	3.98	30	

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 1112719

**Project:** CDOT Highway 6 Bridge Work

Batch ID: R121198 Instrume	nt ID <b>VOA3</b>		Metho	d: <b>SW8260</b>						
MS Sample ID: 1112779-04	4ZMS			l	Jnits: µg/k	(g	Analysi	s Date: <b>12</b>	/30/2011	01:22 PM
Client ID:	Run II	D: <b>VOA3</b> _	111230A	Se	qNo: <b>264</b> :	3110	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	56.14	5.0	50	0	112	79-120	0			
Ethylbenzene	53.47	5.0	50	0	107	80-122	0			
Toluene	56.98	5.0	50	1.784	110	79-120	0			
Xylenes, Total	160	15	150	0	107	80-120	0			
Surr: 1,2-Dichloroethane-d4	51.18	0	50	0	102	70-128	0			
Surr: 4-Bromofluorobenzene	48.32	0	50	0	96.6	73-126	0			
Surr: Dibromofluoromethane	45.56	0	50	0	91.1	71-128	0			
Surr: Toluene-d8	50.83	0	50	0	102	73-127	0			
MSD Sample ID: 1112779-04	4ZMSD			Units: µg/Kg Analysis Date: 12/30					/30/2011	01:49 PM
Client ID:	Run II	D: <b>VOA3</b> _	111230A	Se	qNo: <b>264</b> :	3111	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	56.91	5.0	50	0	114	79-120	56.14	1.35	30	
Benzene Ethylbenzene	56.91 53.27	5.0 5.0	50 50	0	114 107	79-120 80-122	56.14 53.47	1.35 0.366	30	
Ethylbenzene	53.27	5.0	50	0	107	80-122	53.47	0.366	30	
Ethylbenzene Toluene	53.27 58.85	5.0 5.0	50 50	0 1.784	107 114	80-122 79-120	53.47 56.98 160	0.366 3.23	30 30	
Ethylbenzene Toluene Xylenes, Total	53.27 58.85 160.1	5.0 5.0 15	50 50 150	0 1.784 0	107 114 107	80-122 79-120 80-120	53.47 56.98 160 51.18	0.366 3.23 0.0479	30 30 30	
Ethylbenzene Toluene Xylenes, Total Surr: 1,2-Dichloroethane-d4	53.27 58.85 160.1 50.42	5.0 5.0 15	50 50 150 50	0 1.784 0 0	107 114 107 101	80-122 79-120 80-120 70-128	53.47 56.98 160 51.18 48.32	0.366 3.23 0.0479 1.48	30 30 30 30	

The following samples were analyzed in this batch:

Note:

1112719-01A 1112719-02A

Client: Olsson Associates

Work Order: 1112719

CDOT Highway 6 Bridge Work **Project:** 

QC BATCH REPORT

Batch ID: R	R121503	Instrument ID E	alance1		Metho	d: <b>SW35</b> 5	50						
DUP	Sample II	D: <b>1201109-06ADU</b> I	•				Ĺ	Jnits: wt%	)	Analysi	s Date: 1/	6/2012 06	:30 PM
Client ID:		Run ID:			D: <b>BALANCE1_120106C</b>			SeqNo: <b>2649929</b>		Prep Date:	DF: <b>1</b>		
Analyte			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Mo	oisture		24.72	0.010	0		0	0	0-0	25.33	2.44	20	
The follow	ing samples	were analyzed in	this batch	11	12719-01B	11	1127	19-02B				•	

ALS Environmental

Date: 09-Jan-12

Client: Olsson Associates

QUALIFIERS,

Project: CDOT Highway 6 Bridge Work
WorkOrder: 1112719

CDOT Highway 6 Bridge Work

ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O P	Sample amount is > 4 times amount spiked  Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
<b>Units Reported</b>	<u>Description</u>
$\mu g/Kg$	Micrograms per Kilogram
mg/Kg	Milligrams per Kilogram
wt%	

#### Sample Receipt Checklist

Client Name: OLSSON ASSOC - GOLDEN				Date/Time	Received:	22-Dec-1	<u>1 10:45</u>	
Work Order:	1112719			Received b	y:	<u>PMG</u>		
Checklist comp	pleted by <u>Robert D. Harris</u> eSignature	23-	-Dec-11	Reviewed by:	Patricia eSignature	L. Lyni	eh	27-Dec-11
Matrices: Carrier name:	soils FedEx	'						'
Shipping conta	iner/cooler in good condition?		Yes 🗹	No 🗌	Not Pres	ent		
Custody seals	intact on shipping container/coole	r?	Yes	No 🗌	Not Pres	ent 🗹		
Custody seals	intact on sample bottles?		Yes $\square$	No $\square$	Not Pres	ent 🗹		
Chain of custoo	dy present?		Yes 🗸	No 🗆				
Chain of custoo	dy signed when relinquished and r	eceived?	Yes 🗸	No 🗆				
Chain of custo	dy agrees with sample labels?		Yes 🗸	No 🗌				
Samples in pro	pper container/bottle?		Yes 🗸	No $\square$				
Sample contain	ners intact?		Yes 🗸	No 🗆				
Sufficient samp	ole volume for indicated test?		Yes 🗸	No 🗌				
All samples red	ceived within holding time?		Yes 🗹	No 🗆				
Container/Tem	p Blank temperature in complianc	e?	Yes 🗸	No 🗆				
Temperature(s	)/Thermometer(s):		<u>3.7c</u>		00	2		
Cooler(s)/Kit(s)	):							
Water - VOA v	ials have zero headspace?		Yes	No 🗆	No VOA vials	submitted	<b>✓</b>	
Water - pH acc	ceptable upon receipt?		Yes	No 🗆	N/A			
pH adjusted? pH adjusted by	r.		Yes  -	No 🗆	N/A 🔽			
Login Notes:								
				. — — — —		. — — — .		
		_ — — — — —		. — — — —	- — — — —	- — — —		
Client Contacte	ed:	Date Contacted:		Person	Contacted:			
Contacted By:		Regarding:						
Comments:								
CorrectiveAction	on:						SRC F	Page 1 of 1

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ALS Project Manager:

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OLSSON ASSOC - GOLDEN: Olsson Associates

Project: CDOT US 6 Bridges	(3260)	Total Metals (6020/7000) RCRA8	
<u>*</u> +	BTEX (8260)	Total Metal:	

	Customer Information		Project Information	ormation				
Purchase Order		Project Name	CDOT Highw	CDOT Highway 6 Bridgework		A BTEX (8260)	(0	REMOVEMENT (Transport of the control
Work Order		Project Number	011-2359	200	20002 E	B Total Meta	Total Metals (6020/7000) RCRA8	
Company Name	Olsson Associates	Bill To Company	Olsson Associates	ciates		ပ		
Send Report To	James Hix	Invoice Attn	James Hix			۵		
Address	4690 Table Mountain Drive	Value	4690 Table	4690 Table Mountain Drive		ш		
Addiess	Suite 200	Addiess	Suite 200		<b></b>	L.		
City/State/Zip	Golden, CO 80403	City/State/Zip	Golden, CO 80403	90403	O	45		
Phone	(303) 237-2072	Phone	(303) 237-2072	072				
Fax	(303) 237-2659	Fax	(303) 237-2659	959			April 1985	
e-Mail Address		e-Mail Address				- 7		7/100 TATALON TOTALON TOTAL
·o <sub>2</sub> 1	Sample Description	Date	Time	Matrix Pres.	# Bottles	A B C	DEF	C H DIOH
1-LM2-10	16.18 ft	12/20/11	12:50 5	S Next	68	7		
	"	12/20/11 1	13:20 5	Neat	S	7		
1	Blank - 760k (2/21/11 /24	130/14		A-FA	8	*		
4	The state of the s		- 1 - 1					
L)				7.00				
9								
7								
<b>O</b>								
, o	AND THE PROPERTY OF THE PROPER				-			
0,						. ,		
Sampler(s) Please Print & Sign	Print & Sign	Shipment Method	thod	Required Turnaround Time: (Check Box)	ound Time: (Ch			Results Due Date:
		Ì		Std 10 WK Days		Days	2 WK Days 24 Hour	
Relinquished by:	1. 1. A. X Date: 121/11	Time: Og: 34 Rec	12	1-EX	N. Company of the Com	Notes: 10 Da	10 Day TAT	
Relinguished by:			Received by (Laboratory):	ry): 10 45	1	Cooler ID C	Cooler Temp. QC Packag	QC Package: (Check One Box Below)
Logged by (Laboratory):	y):	Time: Che	Checked by (Laboratory):	ry):				Raw Data
Preservative Key:	1-HCI 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub>	4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	6-NaHSO4	7-Other 8-4°C	9-5035			Other / EDD

lote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

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From: (303) 237-2072 Mary Lou Lazo James Hix Olsson Assocaites 4690 Table Mountain Dr SUITE 200 Golden, CO 80403 Origin ID: WHHA



1112011080502

**BILL SENDER** 

SHIP TO: (281) 530-5656
Sample Reeiving
ALS Laboratory Group
10450 STANCLIFF RD STE 210

HOUSTON, TX 77099

Ship Date: 21DEC11 ActWgt: 11.0 LB CAD: 5396423/INET3210

Delivery Address Bar Code



Ref#

Project ???? James Hix

Invoice # PO # Dept #

THU - 22 DEC A2

TRK# 0201

7930 4396 2024

PRIORITY OVERNIGHT

**AB SGRA** 

77099 TX-US



50FG1/859F/F5F4

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# ATTACHMENT B GROUNDWATER SAMPLE ANALYTICAL RESULTS



18-Jan-2012

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

Tel: (303) 237-3139 Fax: (303) 374-3139

Re: CDOT Highway 6 Bridgework Work Order: 1201112

Dear James,

ALS Environmental received 8 samples on 05-Jan-2012 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 24.

atricia L. Lynch

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Yvan K. Ty

Patricia L. Lynch Project Manager



ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#JURXS#XVD/#FRUS##Sdbw#ri#withDOV#Dderudwru|#Jurxs#D#Fdp sehod#Surwithbw#Dip Mog#Frp sdq |

Environmental 🚴

www.alsglobal.com

ALS Environmental Date: 18-Jan-12

Client: Olsson Associates

Project: CDOT Highway 6 Bridgework Work Order Sample Summary

Work Order: 1201112

<u>Lab Samp II</u>	Client Sample ID	<u>Matrix</u>	<u>Tag Number</u>	<b>Collection Date</b>	Date Received	<u>Hold</u>
1201112-01	RW6-1	Water		1/4/2012 12:20	1/5/2012 09:00	
1201112-02	RW7-1	Water		1/4/2012 12:50	1/5/2012 09:00	
1201112-03	RW3-2	Water		1/4/2012 10:30	1/5/2012 09:00	
1201112-04	RW2-1	Water		1/4/2012 11:00	1/5/2012 09:00	
1201112-05	RW1-2	Water		1/4/2012 11:30	1/5/2012 09:00	
1201112-06	RW5-1	Water		1/4/2012 12:00	1/5/2012 09:00	
1201112-07	Trip Blank - 111411-23	Water		1/5/2012 18:30	1/5/2012 09:00	
1201112-08	Trip Blank - 111411-24	Water		1/4/2012	1/5/2012 09:00	

ALS Environmental

Date: 18-Jan-12

Client: Olsson Associates

Project: CDOT Highway 6 Bridgework Case Narrative

**Work Order:** 1201112

The data for pH is flagged with H indicating that the holding time was exceeded. The holding time for pH is "immediate" per 40CFR136.

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 RW6-1
 Lab ID:
 1201112-01

 Collection Date:
 1/4/2012 12:20 PM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			SW7470		Prep Date:	1/16/2012 Analyst: JCJ
Mercury	0.00178		0.000200	mg/L	1	1/16/2012 03:32 PM
METALS			SW6020		Prep Date:	1/10/2012 Analyst: ALR
Arsenic	0.143		0.0500	mg/L	10	1/11/2012 12:04 AM
Barium	4.20		0.0500	mg/L	10	1/11/2012 12:04 AM
Cadmium	0.00930		0.00200	mg/L	1	1/12/2012 06:01 AM
Chromium	0.549		0.0500	mg/L	10	1/11/2012 12:04 AM
Lead	0.425		0.0500	mg/L	10	1/11/2012 12:04 AM
Selenium	0.0708		0.0500	mg/L	10	1/11/2012 12:04 AM
Silver	0.00232	J	0.00500	mg/L	1	1/12/2012 06:01 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/9/2012 03:07 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 03:07 PM
Toluene	U		5.0	μg/L	1	1/9/2012 03:07 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 03:07 PM
Surr: 1,2-Dichloroethane-d4	107		70-125	%REC	1	1/9/2012 03:07 PM
Surr: 4-Bromofluorobenzene	96.1		72-125	%REC	1	1/9/2012 03:07 PM
Surr: Dibromofluoromethane	103		71-125	%REC	1	1/9/2012 03:07 PM
Surr: Toluene-d8	94.1		75-125	%REC	1	1/9/2012 03:07 PM
OIL AND GREASE			E1664			Analyst: CMC
Oil and Grease	U		2.00	mg/L	1	1/16/2012 10:00 AM
PH			E150.1			Analyst: <b>TDW</b>
рН	6.33	Н	0.100	pH units	1	1/6/2012 02:00 PM
TOTAL SUSPENDED SOLIDS Suspended Solids (Residue, Non-Filterable)	30,400		M2540D 2.00	mg/L	1	Analyst: <b>KAH</b> 1/6/2012 01:45 PM

**Date:** 18-Jan-12

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 RW7-1
 Lab ID:
 1201112-02

 Collection Date:
 1/4/2012 12:50 PM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			SW7470		Prep Date:	1/16/2012 Analyst: JCJ
Mercury	0.00117		0.000200	mg/L	1	1/16/2012 03:38 PM
METALS			SW6020		Prep Date:	1/10/2012 Analyst: ALR
Arsenic	0.112		0.0500	mg/L	10	1/11/2012 12:10 AM
Barium	4.85		0.0500	mg/L	10	1/11/2012 12:10 AM
Cadmium	0.00486		0.00200	mg/L	1	1/12/2012 06:07 AM
Chromium	0.270		0.0500	mg/L	10	1/11/2012 12:10 AM
Lead	0.360		0.0500	mg/L	10	1/11/2012 12:10 AM
Selenium	0.0518		0.0500	mg/L	10	1/11/2012 12:10 AM
Silver	0.00176	J	0.00500	mg/L	1	1/12/2012 06:07 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/10/2012 03:55 PM
Ethylbenzene	U		5.0	μg/L	1	1/10/2012 03:55 PM
Toluene	U		5.0	μg/L	1	1/10/2012 03:55 PM
Xylenes, Total	U		15	μg/L	1	1/10/2012 03:55 PM
Surr: 1,2-Dichloroethane-d4	94.5		70-125	%REC	1	1/10/2012 03:55 PM
Surr: 4-Bromofluorobenzene	91.9		72-125	%REC	1	1/10/2012 03:55 PM
Surr: Dibromofluoromethane	96.3		71-125	%REC	1	1/10/2012 03:55 PM
Surr: Toluene-d8	91.8		75-125	%REC	1	1/10/2012 03:55 PM
OIL AND GREASE			E1664			Analyst: CMC
Oil and Grease	0.682	J	2.00	mg/L	1	1/16/2012 10:00 AM
PH			E150.1			Analyst: TDW
рН	6.39	Н	0.100	pH units	1	1/6/2012 02:00 PM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: <b>KAH</b>
Suspended Solids (Residue, Non- Filterable)	48,200		2.00	mg/L	1	1/6/2012 01:45 PM

**Date:** 18-Jan-12

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 RW3-2
 Lab ID:
 1201112-03

 Collection Date:
 1/4/2012 10:30 AM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			SW7470		Prep Date:	1/16/2012 Analyst: JCJ
Mercury	0.00137		0.000200	mg/L	1	1/16/2012 03:40 PM
METALS			SW6020		Prep Date:	1/10/2012 Analyst: ALR
Arsenic	0.0784		0.0500	mg/L	10	1/11/2012 12:16 AM
Barium	4.25		0.0500	mg/L	10	1/11/2012 12:16 AM
Cadmium	0.00615		0.00200	mg/L	1	1/12/2012 06:14 AM
Chromium	0.241		0.0500	mg/L	10	1/11/2012 12:16 AM
Lead	0.628		0.0500	mg/L	10	1/11/2012 12:16 AM
Selenium	0.0352		0.00500	mg/L	1	1/12/2012 06:14 AM
Silver	0.00194	J	0.00500	mg/L	1	1/12/2012 06:14 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/9/2012 12:23 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 12:23 PM
Toluene	U		5.0	μg/L	1	1/9/2012 12:23 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 12:23 PM
Surr: 1,2-Dichloroethane-d4	111		70-125	%REC	1	1/9/2012 12:23 PM
Surr: 4-Bromofluorobenzene	87.3		72-125	%REC	1	1/9/2012 12:23 PM
Surr: Dibromofluoromethane	103		71-125	%REC	1	1/9/2012 12:23 PM
Surr: Toluene-d8	86.7		75-125	%REC	1	1/9/2012 12:23 PM
OIL AND GREASE			E1664			Analyst: CMC
Oil and Grease	U		2.00	mg/L	1	1/16/2012 10:00 AM
РН			E150.1			Analyst: TDW
рН	6.50	Н	0.100	pH units	1	1/6/2012 02:00 PM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: KAH
Suspended Solids (Residue, Non- Filterable)	10,800		2.00	mg/L	1	1/6/2012 01:45 PM

**Date:** 18-Jan-12

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 RW2-1
 Lab ID:
 1201112-04

 Collection Date:
 1/4/2012 11:00 AM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			SW7470		Prep Date:	1/16/2012 Analyst: JCJ
Mercury	0.000465		0.000200	mg/L	1	1/16/2012 03:42 PM
METALS			SW6020		Prep Date:	1/10/2012 Analyst: ALR
Arsenic	0.0512		0.0500	mg/L	10	1/11/2012 12:23 AM
Barium	2.66		0.0500	mg/L	10	1/11/2012 12:23 AM
Cadmium	0.00329		0.00200	mg/L	1	1/12/2012 06:39 AM
Chromium	0.282		0.0500	mg/L	10	1/11/2012 12:23 AM
Lead	0.348		0.0500	mg/L	10	1/11/2012 12:23 AM
Selenium	0.0312		0.00500	mg/L	1	1/12/2012 06:39 AM
Silver	0.00127	J	0.00500	mg/L	1	1/12/2012 06:39 AM
VOLATILES			SW8260			Analyst: <b>PC</b>
Benzene	U		5.0	μg/L	1	1/9/2012 12:52 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 12:52 PM
Toluene	U		5.0	μg/L	1	1/9/2012 12:52 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 12:52 PM
Surr: 1,2-Dichloroethane-d4	107		70-125	%REC	1	1/9/2012 12:52 PM
Surr: 4-Bromofluorobenzene	90.1		72-125	%REC	1	1/9/2012 12:52 PM
Surr: Dibromofluoromethane	106		71-125	%REC	1	1/9/2012 12:52 PM
Surr: Toluene-d8	89.3		75-125	%REC	1	1/9/2012 12:52 PM
OIL AND GREASE			E1664			Analyst: CMC
Oil and Grease	1.69	J	2.00	mg/L	1	1/16/2012 10:00 AM
PH			E150.1			Analyst: <b>TDW</b>
рН	6.54	Н	0.100	pH units	1	1/6/2012 02:00 PM
TOTAL SUSPENDED SOLIDS Suspended Solids (Residue, Non-Filterable)	14,700		M2540D 2.00	mg/L	1	Analyst: <b>KAH</b> 1/6/2012 01:45 PM

**Date:** 18-Jan-12

**Client:** Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 RW1-2
 Lab ID:
 1201112-05

 Collection Date:
 1/4/2012 11:30 AM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			SW7470		Prep Date:	1/16/2012 Analyst: JCJ
Mercury	0.000833		0.000200	mg/L	1	1/16/2012 03:44 PM
METALS			SW6020		Prep Date:	1/10/2012 Analyst: ALR
Arsenic	0.0994		0.0500	mg/L	10	1/11/2012 12:29 AM
Barium	11.4		0.0500	mg/L	10	1/11/2012 12:29 AM
Cadmium	0.00640		0.00200	mg/L	1	1/12/2012 06:45 AM
Chromium	0.753		0.0500	mg/L	10	1/11/2012 12:29 AM
Lead	2.07		0.0500	mg/L	10	1/11/2012 12:29 AM
Selenium	0.0984		0.0500	mg/L	10	1/11/2012 12:29 AM
Silver	0.0112		0.00500	mg/L	1	1/12/2012 06:45 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/9/2012 02:14 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 02:14 PM
Toluene	U		5.0	μg/L	1	1/9/2012 02:14 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 02:14 PM
Surr: 1,2-Dichloroethane-d4	101		70-125	%REC	1	1/9/2012 02:14 PM
Surr: 4-Bromofluorobenzene	92.8		72-125	%REC	1	1/9/2012 02:14 PM
Surr: Dibromofluoromethane	102		71-125	%REC	1	1/9/2012 02:14 PM
Surr: Toluene-d8	92.9		75-125	%REC	1	1/9/2012 02:14 PM
OIL AND GREASE			E1664			Analyst: CMC
Oil and Grease	0.638	J	2.00	mg/L	1	1/16/2012 10:00 AM
PH			E150.1			Analyst: <b>TDW</b>
рН	6.38	Н	0.100	pH units	1	1/6/2012 02:00 PM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: KAH
Suspended Solids (Residue, Non- Filterable)	38,100		2.00	mg/L	1	1/6/2012 01:45 PM

**Date:** 18-Jan-12

Client: Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 RW5-1
 Lab ID:
 1201112-06

 Collection Date:
 1/4/2012 12:00 PM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			SW7470		Prep Date:	1/16/2012 Analyst: JCJ
Mercury	0.000980		0.000200	mg/L	1	1/16/2012 03:46 PM
METALS			SW6020		Prep Date:	1/10/2012 Analyst: ALR
Arsenic	0.0755		0.0500	mg/L	10	1/11/2012 12:35 AM
Barium	6.61		0.0500	mg/L	10	1/11/2012 12:35 AM
Cadmium	0.00377		0.00200	mg/L	1	1/12/2012 06:51 AM
Chromium	0.293		0.0500	mg/L	10	1/11/2012 12:35 AM
Lead	0.576		0.0500	mg/L	10	1/11/2012 12:35 AM
Selenium	0.0652		0.0500	mg/L	10	1/11/2012 12:35 AM
Silver	0.00358	J	0.00500	mg/L	1	1/12/2012 06:51 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/9/2012 02:41 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 02:41 PM
Toluene	U		5.0	μg/L	1	1/9/2012 02:41 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 02:41 PM
Surr: 1,2-Dichloroethane-d4	105		70-125	%REC	1	1/9/2012 02:41 PM
Surr: 4-Bromofluorobenzene	94.6		72-125	%REC	1	1/9/2012 02:41 PM
Surr: Dibromofluoromethane	100		71-125	%REC	1	1/9/2012 02:41 PM
Surr: Toluene-d8	92.1		75-125	%REC	1	1/9/2012 02:41 PM
OIL AND GREASE			E1664			Analyst: CMC
Oil and Grease	0.652	J	2.00	mg/L	1	1/16/2012 10:00 AM
PH			E150.1			Analyst: <b>TDW</b>
рН	6.36	Н	0.100	pH units	1	1/6/2012 02:00 PM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: <b>KAH</b>
Suspended Solids (Residue, Non- Filterable)	19,200		2.00	mg/L	1	1/6/2012 01:45 PM

**Date:** 18-Jan-12

Client: Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 Trip Blank - 111411-23
 Lab ID:
 1201112-07

 Collection Date:
 1/5/2012 06:30 PM
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/9/2012 06:40 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 06:40 PM
Toluene	U		5.0	μg/L	1	1/9/2012 06:40 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 06:40 PM
Surr: 1,2-Dichloroethane-d4	113		70-125	%REC	1	1/9/2012 06:40 PM
Surr: 4-Bromofluorobenzene	94.9		72-125	%REC	1	1/9/2012 06:40 PM
Surr: Dibromofluoromethane	107		71-125	%REC	1	1/9/2012 06:40 PM
Surr: Toluene-d8	96.7		75-125	%REC	1	1/9/2012 06:40 PM

**Date:** 18-Jan-12

Client: Olsson Associates

 Project:
 CDOT Highway 6 Bridgework
 Work Order:
 1201112

 Sample ID:
 Trip Blank - 111411-24
 Lab ID:
 1201112-08

 Collection Date:
 1/4/2012
 Matrix:
 WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0	μg/L	1	1/9/2012 07:07 PM
Ethylbenzene	U		5.0	μg/L	1	1/9/2012 07:07 PM
Toluene	U		5.0	μg/L	1	1/9/2012 07:07 PM
Xylenes, Total	U		15	μg/L	1	1/9/2012 07:07 PM
Surr: 1,2-Dichloroethane-d4	109		70-125	%REC	1	1/9/2012 07:07 PM
Surr: 4-Bromofluorobenzene	95.9		72-125	%REC	1	1/9/2012 07:07 PM
Surr: Dibromofluoromethane	102		71-125	%REC	1	1/9/2012 07:07 PM
Surr: Toluene-d8	90.3		75-125	%REC	1	1/9/2012 07:07 PM

**Date:** 18-Jan-12

Date: 18-Jan-12

QC BATCH REPORT

Client: Olsson Associates Work Order: 1201112

CDOT Highway 6 Bridgework **Project:** 

Batch ID: 58	Instrument ID ICPMS03		Method	: SW602	20						
MBLK	Sample ID: MBLKW4-011012-58036				U	nits: <b>mg/</b>	 L	Analy	sis Date: 1	/10/2012 0	9:21 PM
Client ID:	Rur	n ID: ICPMS	03_120110 <i>A</i>	Ĺ	Sec	No: <b>265</b> 1	1456	Prep Date: 1/1	0/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050									
Barium	U	0.0050									
Cadmium	U	0.0020									
Chromium	U	0.0050									
Lead	U	0.0050									
Selenium	0.00143	0.0050									J
Silver	U	0.0050									
LCS	Sample ID: MLCSW4-011012-58036				U	nits: <b>mg/</b>	L	Analy	sis Date: 1	/10/2012 0	9:28 PM
Client ID:	Rur	n ID: ICPMS	03_120110 <i>A</i>	l.	Sec	No: <b>265</b> 1	1457	Prep Date: 1/1	0/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04937	0.0050	0.05		0	98.7	80-120	(	1		
Barium	0.0536	0.0050	0.05		0	107	80-120	(			
Cadmium	0.04973	0.0020	0.05		0	99.5	80-120				
Chromium	0.04978	0.0050	0.05		0	99.6	80-120	(			
Lead	0.05158	0.0050	0.05		0	103	80-120				
Selenium	0.0496	0.0050	0.05		0	99.2	80-120	(			
Silver	0.05089	0.0050	0.05		0	102	80-120	(			
MS	Sample ID: <b>1201103-01CMS</b>				U	nits: <b>mg/</b>	L	Analy	sis Date: 1	/10/2012 0	9:53 PM
Client ID:	Rur	n ID: ICPMS	03_120110 <i>A</i>	<u>.</u>		No: <b>265</b> 1		Prep Date: 1/1		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0503	0.0050	0.05 (	0.0000059	41	101	80-120	(	)		
Barium	0.05454	0.0050		·0.000003		109	80-120	(			
Cadmium	0.05096	0.0030	0.05	0.00011		102	80-120	(			
Chromium	0.0504	0.0020	0.05	0.00011		100	80-120	(			
Lead	0.0527	0.0050	0.05	0.000109		105	80-120	(			
Selenium	0.05089	0.0050	0.05	0.00013		99	80-120	(			
Silver	0.05212	0.0050	0.05	-0.0002		105	80-120	(			

See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 1201112

**Project:** CDOT Highway 6 Bridgework

Batch ID: 58	Instrument ID ICPMS03		Metho	od: <b>SW6020</b>						
MSD	Sample ID: <b>1201103-01CMSD</b>			į	Jnits: <b>mg/</b>	L	Analysi	s Date: <b>1/</b>	10/2012 0	9:59 PM
Client ID:	Run	ID: ICPMS	03_120110	A Se	eqNo: <b>265</b>	1462	Prep Date: 1/10	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04856	0.0050	0.05	0.000005941	97.1	80-120	0.0503	3.52	15	
Barium	0.05347	0.0050	0.05	-0.00002379	107	80-120	0.05454	1.98	15	
Cadmium	0.04929	0.0020	0.05	0.0001141	98.4	80-120	0.05096	3.33	15	
Chromium	0.04876	0.0050	0.05	0.000387	96.7	80-120	0.0504	3.31	15	-
Lead	0.05111	0.0050	0.05	0.0001094	102	80-120	0.0527	3.06	15	
Selenium	0.04836	0.0050	0.05	0.001378	94	80-120	0.05089	5.1	15	-
Silver	0.05084	0.0050	0.05	-0.000202	102	80-120	0.05212	2.49	15	
DUP	Sample ID: <b>1201103-01CDUP</b>			ı	Jnits: <b>mg/</b>	L	Analysi	s Date: <b>1/</b>	10/2012 0	9:40 PM
Client ID:	Run	ID: ICPMS	03_120110	A Se	eqNo: <b>265</b>	1459	Prep Date: 1/10	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050	0	0	0	0-0	0.000005941	0	25	
Barium	U	0.0050	0	0	0	0-0	-0.00002379	0	25	
Cadmium	U	0.0020	0	0	0	0-0	0.0001141	0	25	
Chromium	U	0.0050	0	0	0	0-0	0.000387	0	25	
Lead	U	0.0050	0	0	0	0-0	0.0001094	0	25	
Selenium	0.001118	0.0050	0	0	0	0-0	0.001378	0	25	J
Silver	U	0.0050	0	0	0	0-0	-0.000202	0	25	

The following samples were analyzed in this batch:

1201112-01C	1201112-02C	1201112-03C	
1201112-040	1201112-050	1201112-060	

Olsson Associates

Work Order:

1201112

**Project:** 

Note:

Client:

CDOT Highway 6 Bridgework

QC BATCH REPORT

Batch ID: 58	3176 Instrum	nent ID Mercury		Method	: SW747	0						
MBLK	Sample ID: GBLKW:	3-011612-58176				Units:	mg/L		Analy	sis Date: 1	/16/2012 0	3:06 PM
Client ID:		Run	ID: MERC	JRY_120116	Α	SeqNo:	26560	42	Prep Date: 1/1	6/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%R		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		U	0.00020									
LCS	Sample ID: GLCSW3	3-011612-58176				Units:	mg/L		Analy	sis Date: 1	/16/2012 0	3:08 PM
Client ID:		Run	ID: MERC	JRY_120116	Α	SeqNo:	26560	43	Prep Date: 1/1	6/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%R		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.0055	0.00020	0.005		0 1	10	85-115		0		
MS	Sample ID: <b>1201308</b>	-01CMS				Units:	mg/L		Analy	sis Date: 1	/16/2012 0	3:20 PM
Client ID:		Run	ID: MERC	JRY_120116	A	SeqNo:	26560	46	Prep Date: 1/1	6/2012	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%R		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.00544	0.00020	0.005	-0.00000	01 1	09	85-115		0		
MSD	Sample ID: <b>1201308</b>	-01CMSD				Units:	mg/L		Analy	sis Date: 1	/16/2012 0	3:22 PM
Client ID:		Run	ID: MERC	JRY_120116	Α	SeqNo:	26560	49	Prep Date: 1/1	6/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%R		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.00554	0.00020	0.005	-0.00000	01 1	11	85-115	0.0054	4 1.82	2 20	
DUP	Sample ID: <b>1201308</b>	-01CDUP				Units:	mg/L		Analy	sis Date: 1	/16/2012 0	3:18 PM
Client ID:		Run	ID: MERC	JRY_120116	Α	SeqNo:	26560	45	Prep Date: 1/1	6/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%R		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		U	0.00020	0		0	0	0-0	-0.00000	1 (	) 20	
	ng samples were anal	yzed in this batch		201112-01C 201112-04C		01112-02 01112-05			01112-03C 01112-06C			

QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 1201112

**Project:** CDOT Highway 6 Bridgework

Batch ID: R121537 Inst	rument ID VOA1		Metho	d: <b>SW826</b>	0						
MBLK Sample ID: VBLK	(W-010912-R121537				U	Jnits: μg/L	-	Analy	sis Date: 1	/9/2012 1 <sup>-</sup>	1:22 AN
Client ID:	Run II	D: <b>VOA1</b> _	120109A		Se	qNo: <b>265</b> 0	0552	Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	52.85	5.0	50		0	106	70-125	(	)		
Surr: 4-Bromofluorobenzene	46.48	5.0	50		0	93	72-125	(	)		
Surr: Dibromofluoromethane	50.56	5.0	50		0	101	71-125	(	)		
Surr: Toluene-d8	45.3	5.0	50		0	90.6	75-125	(	)		
LCS Sample ID: VLCS	SW-010912-R121537				U	Inits: µg/L	-	Analy	sis Date: 1	/9/2012 10	0:20 AN
Client ID:	Run II	D: <b>VOA1</b> _	120109A		Se	qNo: <b>265</b> 0	0551	Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	48.95	5.0	50		0	97.9	73-121	(	)		
Ethylbenzene	48.79	5.0	50		0	97.6	80-120	(	)		
Toluene	46.87	5.0	50		0	93.7	80-120	(	)		
Xylenes, Total	144	15	150		0	96	80-120	(	)		
Surr: 1,2-Dichloroethane-d4	49.56	5.0	50		0	99.1	70-125	(	)		
Surr: 4-Bromofluorobenzene	49.61	5.0	50		0	99.2	72-125	(	)		
Surr: Dibromofluoromethane	49.96	5.0	50		0	99.9	71-125	(	)		
Surr: Toluene-d8	47.17	5.0	50		0	94.3	75-125	(	)		
MS Sample ID: 12011	118-01AMS				U	Inits: µg/L	-	Analy	sis Date: 1	/9/2012 0 <sup>-</sup>	1:20 PN
Client ID:	Run II	D: <b>VOA1</b> _	120109A		Se	qNo: <b>265</b> 0	0556	Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	48.02	5.0	50		0	96	73-121	(	)		
Ethylbenzene	43.42	5.0	50		0	86.8	80-120	(	)		
Toluene	46.11	5.0	50		0	92.2	80-120	(	)		
Xylenes, Total	141.6	15	150		0	94.4	80-120	(	)		
Surr: 1,2-Dichloroethane-d4	51.89	5.0	50		0	104	70-125	(	)		
Surr: 4-Bromofluorobenzene	54.14	5.0	50		0	108	<i>7</i> 2-125	(	)		
Surr: Dibromofluoromethane	50.58	5.0	50		0	101	71-125	(	)		
Surr: Toluene-d8	50.99	5.0	50		0	102	75-125	(	`		

See Qualifiers Page for a list of Qualifiers and their explanation.

Olsson Associates QC BATCH REPORT

**Work Order:** 1201112

Client:

**Project:** CDOT Highway 6 Bridgework

Batch ID: R	121537	Instrument ID VOA1		Metho	d: <b>SW8260</b>						
MSD	Sample ID: 1	201118-01AMSD				Units: µg/L	_	Analysi	s Date: 1/9	9/2012 01	:47 PM
Client ID:		Run	ID: VOA1_	120109A	S	eqNo: <b>265</b> 0	0557 I	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		47.53	5.0	50	0	95.1	73-121	48.02	1.03	20	
Ethylbenzer	ne	46.12	5.0	50	0	92.2	80-120	43.42	6.03	20	
Toluene		46.13	5.0	50	0	92.3	80-120	46.11	0.0428	20	
Xylenes, To	tal	136	15	150	0	90.7	80-120	141.6	4	20	
Surr: 1,2-	-Dichloroethane-	-d4 52.58	5.0	50	0	105	70-125	51.89	1.32	20	
Surr: 4-B	romofluorobenze	ene 47.9	5.0	50	0	95.8	72-125	54.14	12.2	20	
Surr: Dib	romofluorometha	ane 51.51	5.0	50	0	103	71-125	50.58	1.82	20	
Surr: Tol	uene-d8	44.6	5.0	50	0	89.2	75-125	50.99	13.4	20	

The following samples were analyzed in this batch:

1201112-01A	1201112-03A	1201112-04A	
1201112-05A	1201112-06A	1201112-07A	
1201112-08A			

QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 1201112

**Project:** CDOT Highway 6 Bridgework

Batch ID: R121573 Instrumen	t ID <b>VOA1</b>		Metho	d: <b>SW8260</b>						
MBLK Sample ID: VBLKW-011	I012-R121573				Units: µg/	L	Analy	sis Date: 1	/10/2012	11:39 AM
Client ID:	Run II	D: <b>VOA1_</b>	120110A	5	SeqNo: <b>265</b>	1227	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	51.92	5.0	50	0	104	70-125	(	)		
Surr: 4-Bromofluorobenzene	46.22	5.0	50	0	92.4	72-125	(	)		
Surr: Dibromofluoromethane	52.91	5.0	50	0	106	71-125	(	)		
Surr: Toluene-d8	46.74	5.0	50	0	93.5	75-125	(	)		
LCS Sample ID: VLCSW-011	I012-R121573				Units: µg/	L	Analy	sis Date: 1	/10/2012	12:06 PM
Client ID:	Run II	D: <b>VOA1</b> _	120110A	5	SeqNo: <b>265</b>	1228	Prep Date:		DF: 1	
				SPK Ref		Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qual
Benzene	52.83	5.0	50	0	106	73-121	(	)		
Ethylbenzene	50.19	5.0	50	0	100	80-120	(	)		
Toluene	48.86	5.0	50	0	97.7	80-120	(	)		
Xylenes, Total	150.2	15	150	0	100	80-120	(	)		
Surr: 1,2-Dichloroethane-d4	51.59	5.0	50	0	103	70-125	(	)		
Surr: 4-Bromofluorobenzene	48.61	5.0	50	0	97.2	72-125	(	)		
Surr: Dibromofluoromethane	50.4	5.0	50	0	101	71-125	(	)		
Surr: Toluene-d8	46.95	5.0	50	0	93.9	75-125	(	)		
MS Sample ID: 1201103-18	ZMS				Units: µg/l	L	Analy	sis Date: 1	/10/2012	01:47 PM
Client ID:	Run II	D: <b>VOA1</b> _	120110A	9	SeqNo: <b>265</b>	1232	Prep Date:		DF: <b>1</b> 0	00
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	11120	500	5000	7047	81.5	73-121		)		
Ethylbenzene	9029	500	5000	4112		80-120		)		
Toluene	4534	500	5000	0		80-120		)		
Xylenes, Total	16650	1,500	15000	1457		80-120		)		
Surr: 1,2-Dichloroethane-d4	4950	500	5000	0		70-125		)		
Surr: 4-Bromofluorobenzene	4824	500	5000	0		72-125		)		
Surr: Dibromofluoromethane	5072	500	5000	0		71-125		)		
	4482									

See Qualifiers Page for a list of Qualifiers and their explanation.

Olsson Associates Client:

Work Order: 1201112

CDOT Highway 6 Bridgework **Project:** 

QC BATCH REPORT

MSD	Sample ID: 1201103-18	ZMSD			1	Units: µg/L	-	Analysi	is Date: 1/	10/2012 0	2:13 PM
Client ID:		Run I	D: <b>VOA1</b> _	120110A	Se	eqNo: <b>265</b>	1233	Prep Date:		DF: <b>10</b>	0
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		11400	500	5000	7047	87.1	73-121	11120	2.49	20	
Ethylbenzen	е	8627	500	5000	4112	90.3	80-120	9029	4.56	20	
Toluene		4226	500	5000	0	84.5	80-120	4534	7.02	20	
Xylenes, Tot	al	14970	1,500	15000	1457	90.1	80-120	16650	10.7	20	
Surr: 1,2-1	Dichloroethane-d4	5066	500	5000	0	101	70-125	4950	2.32	20	
Surr: 4-Br	romofluorobenzene	4434	500	5000	0	88.7	72-125	4824	8.41	20	
Surr: Dibr	omofluoromethane	4893	500	5000	0	97.9	71-125	5072	3.6	20	
Surr: Tolu	ene-d8	4225	500	5000	0	84.5	75-125	4482	5.9	20	

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 1201112

**Project:** CDOT Highway 6 Bridgework

QC BATCH REPORT

Batch ID: F	R121455	Instrument ID WetChem		Metho	d: <b>E150.1</b>						
LCS	Sample ID: V	VLCSDW1-010612-R12145	55			Units:	pH units	Anal	ysis Date: 1/	6/2012 02	2:00 PM
Client ID:		Run	ID: WETCH	HEM_12010	6B	SeqNo:	2648795	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%R	Contro EC Limit		%RPD	RPD Limit	Qual
рН		6	0.10	6		0 1	00 90-11	0	0		
DUP	Sample ID: 1	201112-01BDUP				Units:	pH units	Anal	ysis Date: 1/	(C/2042 0	2.00 DM
						Orinto.	pri units	Allai	ysis Date. I	0/2012 02	2.00 PW
Client ID: F	RW6-1	Run	ID: WETCH	HEM_12010	6B		2648802	Prep Date:	ysis Date. 17	DF: 1	2.00 FIV
Client ID: F	RW6-1	Run Result	ID: WETCH	<b>HEM_12010</b> SPK Val	6B SPK Ref Value		2648802 Contro	Prep Date:	%RPD		
	RW6-1			_	SPK Ref	SeqNo:	2648802 Contro	Prep Date:	%RPD	DF: 1 RPD Limit	Qual

Client: Olsson Associates

**Work Order:** 1201112

**Project:** CDOT Highway 6 Bridgework

QC BATCH REPORT

Batch ID: R	121501 Instrument I		Metho										
MBLK	Sample ID: WBLK-010612	2-R121501				Un	its: <b>mg/</b>	L	Analysis Date: 1/6/2012 01:45 PM				
Client ID:		Run ID	Run ID: BALANCE1_120106B					9899	Prep Date:				
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Suspended	Solids (Residue, Non-Fi	U	2.0										
DUP	Sample ID: <b>1201084-02DI</b>	DUP				Un	its: <b>mg/</b>	L	Analys	sis Date: 1/	6/2012 01	:45 PM	
Client ID:		Run ID	BALAN	ICE1_12010	6B	Seq	No: <b>264</b> 9	9878	Prep Date:		DF: <b>1</b>		
Analyte		Result	PQL	SPK Val	SPK Ref Value	1	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Suspended	Solids (Residue, Non-Fi	20.25	2.0	0		0	0	0-0	22	2 8.28	20		
DUP	Sample ID: <b>1201115-02E</b> [	DUP				Units: mg/L			Analys	/6/2012 01:45 PM			
Client ID:		Run ID	: BALAN	ICE1_12010	6B	SeqNo: <b>2649891</b>			Prep Date:		DF: <b>1</b>		
Analyte		Result	PQL	SPK Val	SPK Ref Value	ı	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Suspended	Solids (Residue, Non-Fi	4332	2.0	0		0	0	0-0	4392	2 1.38	20		
The followi	ing samples were analyzed	in this batch:		201112-01D 201112-04D			2-02D 2-05D		01112-03D 01112-06D				

Client: Olsson Associates

**Work Order:** 1201112

**Project:** CDOT Highway 6 Bridgework

## QC BATCH REPORT

Batch ID: R	<b>121824</b>	nstrument ID WetChem	Method: E1664											
MBLK	Sample ID: WI	BLKW1-011612-R121824				Units: mg/L				Analysis Date: 1/16/2012 10:00 AM				
Client ID:		Run ID:	D: WETCHEM_120116J			SeqNo: <b>2656662</b>			Prep Date:				DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	9,	%RPD	RPD Limit	Qual	
Oil and Gre	ease	U	2.0											
LCS	Sample ID: WI	_CSW1-011612-R121824					Jnits: <b>mg/</b>	L	Ana	lysis l	Date: <b>1</b> /	/16/2012 <sup>-</sup>	10:00 AM	
Client ID:		Run ID:	WETCH	IEM_12011	6J	Se	qNo: <b>265</b> 0	6663	Prep Date:			DF: <b>1</b>		
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	9	%RPD	RPD Limit	Qual	
Oil and Gre	ease	38.78	2.0	40		0	96.9	78-114		0				
MS	Sample ID: 12	01293-01EMS					Jnits: <b>mg/</b>	L	Analysis Date: 1/			I/16/2012 10:00 AM		
Client ID:		Run ID:	ID: WETCHEM_120116J				qNo: <b>265</b> 0	6704	Prep Date:			DF: <b>1</b>		
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	9	%RPD	RPD Limit	Qual	
Oil and Gre	ase	44.33	2.0	40	3.6	69	102	78-114		0				
The followi	ing samples wer	e analyzed in this batch:		201112-01E 201112-04E			12-02E 12-05E		01112-03E 01112-06E					

See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 18-Jan-12

Client: Olsson Associates

Project: CDOT Highway 6 Bridgework

QUALIFIERS,

Project: CDOT Highway 6 Bridgework
WorkOrder: 1201112

CDOT Highway 6 Bridgework
ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
0	Sample amount is > 4 times amount spiked
P R	Dual Column results percent difference > 40% RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
	•
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
<b>Units Reported</b>	Description
μg/L	Micrograms per Liter
mg/L	Milligrams per Liter
pH units	

#### Sample Receipt Checklist

Client Name:	OLSSON ASSOC - GOLDEN				Date/Time	Received	d: <u>05-</u>	Jan-12	<u>09:00</u>		
Work Order:	<u>1201112</u>				Received b	y:	RN	<u>IG</u>			
Checklist compl	eted by Faresh M. Giga eSignature	0	5-Jan-12 Date	Re	viewed by:	Patrice eSignat		Lynes	l	06	-Jan-12 Date
Matrices: Carrier name:	<u>Water</u> <u>FedEx</u>										
Shipping contain	ner/cooler in good condition?		Yes	✓	No 🗌	Not	Present				
Custody seals in	ntact on shipping container/coole	er?	Yes	✓	No 🗌	Not	Present				
Custody seals in	ntact on sample bottles?		Yes		No 🗌	Not	Present	<b>✓</b>			
Chain of custody	y present?		Yes	✓	No 🗆						
Chain of custody	y signed when relinquished and	received?	Yes	✓	No 🗆						
Chain of custody	y agrees with sample labels?		Yes	✓	No 🗌						
Samples in prop	er container/bottle?		Yes	✓	No 🗌						
Sample containe	ers intact?		Yes	<b>✓</b>	No 🗆						
Sufficient sampl	e volume for indicated test?		Yes	<b>✓</b>	No 🗌						
All samples rece	eived within holding time?		Yes	✓	No 🗆						
Container/Temp	Blank temperature in compliand	ce?	Yes	✓	No 🗌						
Temperature(s)/	Thermometer(s):		2.6, 2.2				002				
Cooler(s)/Kit(s):			3446, 18	<u>871</u>							
Water - VOA via	ils have zero headspace?		Yes	✓	No 🗌	No VOA	vials sub	mitted			
Water - pH acce	eptable upon receipt?		Yes	✓	No 🗌	N/A					
pH adjusted? pH adjusted by:			Yes -		No 🗹	N/A					
Login Notes:	COC states incorrect bottle Received 2 trip blanks; not of		8 bottles	& RW3	<u>-2 has 7 bot</u>	tles - logo	ged in per	correct	count.		
====	=======	=====	===	==	====	:==:	===	===	===:	===	===
Client Contacted	<b>d</b> :	Date Contacted:			Person	Contact	ed:				
Contacted By:		Regarding:									
Comments:											
CorrectiveAction	1:								SR	C Page	1 of 1

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Custody
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			ALS Project Manager:		
The state of the s	Customer Information	Project	Project Information		
Purchase Order		Project Name CDOT I	CDOT Highway 6 Bridgework	A BTEX (8260)	
Work Order		Project Number		B Total Metals (6020/7000) RCRA8	-
Company Name	Olsson Associates	Bill To Company Olsson	Olsson Associates	C Oil & Grease	
Send Report To	James Hix	Invoice Attn James Hix	予	Hd	
Address	4690 Table Mountain Drive Suite 200	4690 Tabl Address Suite 200	4690 Table Mountain Drive Suite 200	E 758	
City/State/Zip	Golden, CO 80403	City/State/Zip Golden	Golden, CO 80403	9	
Phone	(303) 237-2072	Phone (303) 2	(303) 237-2072		
Fax	(303) 237-2659	Fax (303) 2	(303) 237-2659	-	
e-Mail Address		e-Mail Address			The state of the s
No.	Sample Description	Date Time	Matrix Pres. # Bottles	A B C D E F	B H D Hold
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10					
Sampler(s) Please Print & Sign	Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Check Box) Other	Results Due Date:
			Std 10 WK Days	Days	
Relinquished by:	Date:	Time: Received by:	***************************************	Notes: 10 Day TAT	
Relinquished by:	Darke: ( O	Time: Received by #cab	Boveto(h):	Cooler ID Cooler Temp. QC Package: (	QC Package: (Check One Box Below)

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately lote:

Copyright 2011 by ALS Environmental.

TRRP CheckList TRRP Level IV

3018 21

Checked by (Naboratory):

Time:

Date:

Logged by (Laboratory):

Level II Std OC

Level III Std &C/Raw Bata E
Level IV SW846/CLP
Other / EDD

Other / EDD

9-5035

8-4°C

7-Other

6-NaHSO₄

5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

4-NaOH

3-H<sub>2</sub>SO<sub>4</sub>

2-HNO3

1-HCI

Preservative Key:



Industrial Laboratories is your independent, third-party analytical testing laboratory

Olsson Associates

4690 Table Mountain Drive

#200

Attn: James Hix

Golden

CO

80403

**TEST REPORT** 

**OLSSONASSO** 

Date Received:

1/4/2012

Date Reported:

1/9/2012

PO Number: 011-2359 200

Note: Sample test procedures conform to EPA 40CFR136 requirements.

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
120104015-01A	RW 6-1, 1/4/12	* Escherichia coli SM 9221 F	<2	MPN/100	mL	KM 1/5/2012
120104015-02A	RW 7-1, 1/4/12	* Escherichia coli SM 9221 F	7	MPN/100	mL	KM 1/5/2012
120104015-03A	RW 3-2, 1/4/12	* Escherichia coli SM 9221 F	4	MPN/100	mL	KM 1/5/2012
120104015-04A	RW 2-1, 1/4/12	* Escherichia coli SM 9221 F	4	MPN/100	mL	KM 1/5/2012
120104015-05A	RW 1-2, 1/4/12	* Escherichia coli SM 9221 F	<2	MPN/100	mL	KM 1/5/2012
120104015-06A	RW 5-1, 1/4/12	* Escherichia coli SM 9221 F	<2	MPN/100	mL	KM 1/5/2012

Department Manager

Page:

l of l

<sup>\* =</sup> Scope Analysis

<sup># =</sup> Subcontracted Analysis

MDL = Method Detection Limit

ND = Not Detected at the Method Detection Limit

# ATTACHMENT C SOIL BORING LOGS AND WELL COMPLETION REPORTS

LOCATION MAP BLP6 4690 Table Mountain Drive #200 OLSSON Golden, CO 80403 VETERANS -GREEN JOBS PARKING T. 303.237.2072 F. 303.237.2659 TEST HOLE/ WELL LOG Page : of A Test/Well Number: Kul-2 Project: Harring Assoc US. 6 Bridg Ramp Date: 12/09/11 Project Number: 811 - 2359 Logged By: James HX Drilled By: Daketer Drilling Drilling Method: HSA- CME 55 Sampling Method: 301 15 Poor Detector: OVM 580B Seal: Bentonite Chips Grout: Surrete Gravel Pack: 10-20 Silica Sand Casing Type: Schedule 40 PVC Hole Dia.: 71/4 F. L. Meter: Diameter: DTP: Length: 10 DTW: 14.5' 2" Screen Type: 30440 RVC Slot: 0.010 Well Depth: 25 Diameter: Length: 15 Total Depth: 25 Penetration Resistence Sample Recovery WELL Sample # LITHOLOGY/REMARKS COMPLETION Depth CONES 0 Snow Cover 0.0 to 2.0 ft Clay, fill, moderate yellow's sh brown (10 yr) 100% MASS O.O NO 1018 Dry CL 12 NO odor/No apparent staining 5/4 22 No odor No apparent of 1.0 to 5.0 ft = 1ty Sandy (lay dry moderately practic, moderate yellow shirown (10 x k 5/4) wist, 45% clay 40% 511, Massive OVMHS 0.0 fpm@4.0 ft
No odor, no apparent staning. Fin 100 Moist Joh MASS 0.0 NO 3 CL CL 1048 DRY 9.0 to 10.0 ft Silty clay,
Disky yellowish brown (104/R
Dry +8 stightly moist, 45% clay
massive OVM 115 0.0 pfm@9
No apparent staining, No odor
Fill MASS 0.0 Ho 10 11 12 13 14.0 to 15.5 ft silty sand to 100 0.0 14 Solity gravelly sand, Blocky, yellowish orange, arkosic, Dry by MHS 0.0 ppm No odor; No 15 17 15 16 Staming 17.0 to 19.0 5 ity send w/ some Gravel, moderate yellow bun, Dry Subangular, OVW 15 0.0 ppm No appearent odor, No Staining 17 pyf 18 0.0 No 25

25

20

LOCATION MAP 4690 Table Mountain Drive #200 Golden, CO 80403 T. 303.237.2072 F. 303.237.2659 See Page 1 TEST HOLE/ WELL LOG Page 2 of 3 Test/Well Number: RW1-2 Project: Hartwig Assoc U.S. 6 Bridges Date: 12/09/11 Project Number: 01-2359 Logged By: James Hix Drilled By: Dako ta Dri ling/Kacks Drilling Method: HSA CME 55 Sampling Method: - Plits per Seal: Bentonite Class 3/8" Grout: - Sakrete Detector: OVM 580B Gravel Pack: 10-20 Silica Sund Casing Type: Schedule to PVC Hole Dia.: 7 F. L. Meter: N/A 2" Diameter: Length: 10 DTP: DTW: 19.5 Screen Type: School PVC Slot: 0,010 Diameter: 2" Well Depth: 25 Length: 15 Total Depth: 25 Penetration Resistence Soil/Rock Type Sample Recovery WELL LITHOLOGY/REMARKS COMPLETION Color Depth 19-21.5 ft Sandy gravel, wet @ 19.5ft to 20 ft. massive OVMHS 0.0ppm No odor; NO Staining 21 MASS 0.0 ND 22 wet 10-20 23 24-25.5 ft Sundy gravel, wet 12 well rounded, arkosic, sat. 15 Massive, OVM 115 0.0 ppm No odor; No staining MASS 0.0 NO 24 GAX 13M 25 26 TD: 25.5 ft 27 28

	LOCAT	ION M	IAP D <sup>E MY</sup>	545 R	ladie Ladie	just);	L Sobi	10	C			LE/ WELL	Golde T. 303		303,237 age _/	7.2659 of <i>3</i>		
			u	). 6th			/_		Date:	12,	umber: <i>K</i> (		Projec	t: Hartwigs	1- 23	59	2000	02
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	Gravel	Pack			Silic	a sa	nd	1.3	0'-8'	69	onite (	hips 3		Hole Dia.: 8"	$\overline{}$	L. Meter:		
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a <b>4</b>	Soil/Rock Type	Color	Moisture Content	% Fines	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence		LITHOLO	GY/REMA	LRKS	C	WEL		
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GM_	10 y 6 6/2 10 y 6 10 y 6 10 y 6	3		MASS	0.0		0 1 2 3 4 5 4 7 8		100	•	proun fill ma debris, - Grand Grayish brown, Subrounded, N OVM HS 0.0 Procksol collects Balk Sample 0-1 Moderate yellow Dry, Massive, N No Starring, (California talk	dry, 5. 1055; re 5 (paul 9:5) 5 (paul 9:5) 5 (paul 9:5) 5 (paul 9:5) 5 (paul 9:5) 5 (paul 9:5) 5 (paul 9:5) 6	2 ft Ryan 2 ft Left vement) ions lorson 1 Clay, own (10) rent od 0.0 fp	25 to 5/4)			A P	
CL	4	MOIST			0.0	No	9 10 11 12 13 14 15 16 17		18" (60%)	200 200 200 200 200 200 200 200 200 200	9.0 to 10.0 ft I brown to Black Odor detected: ( Fill. (California Odor: "Motor o asphalt, 14.0 to 15.5 ft C Grayjsh brown No apparent 5th OVMHS 0.0 fpm		di. ak	(a)	iont miles		olund Olc Cach	- N
	oyr 6/2	Dry	М	A55	5.0	70	18		100	7 9	19.0 to 200 ft si Paleyellowish book massine. No appa Starning OVM	ilt/cla wn(10 nentoc	ugey Silt 18672), G Lor, No Lor, No	(Sh) Ory 19' 31	AND TO THE PROPERTY OF THE PRO		5CR FET	¥

LOCATION	N MAP								<b>A</b>		4690 Table Mount	ain Dri	ve #200
									ハ	OLSSON	Golden, CO 80403	3	
					ĭ					ASSOCIATES	T. 303.237.2072	F. 303	3.237.2659
		See	Pa	عهو	1					TEST HOLE/ WELL	LOG	Page	2 of 2
			1					Test/	Well N	Jumber: RW5-1	Project: Hartuig		6 Bridges
								Date:	12/	9/11	Project Number: (	:-110	2359 20000
										James Hix	Drilled By: Dako		
Elevation				Datas	ham 8.	114 60	3-0			thod: HSA CME 55	Sampling Method:		
Gravel Pa		-20	- 5	Delection of the control of the cont	101:01	1M58	ן כוּט	Seal:	-181	tonite Chips/6ran	Hole Dia.:		F. L. Meter: N/1
Casing Ty						MO			meter:		20 ft DTP: N		DTW: 29.5
Screen Ty			<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	Sl	ot: O	.010			ameter		15 Cr Well Depth:	<del>*</del>	Total Depth: 35
			=-					<u> </u>				<u> </u>	
ock	ıt et	88	ıre		50	#		5 6	ation	I ITHOLOG	GY/REMARKS		WELL COMPLETION
Soil/Rock Type Color	Moisture	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence		1/KEMAKKS		COMPLETION
84 2	Σŏ	%	St	, SS	St	Sa	ď	Sa	Pe Re				
						21				]			1.2
\$4.56.00.000.05.06.00.000.000													
$\vdash$						22	-		_	-			
***************************************			Ì		!			ļ					50.010 Cupt Screen
						23							- Screen
54R	1 1					ارما	PETERSON MANAGEMENT			24 26 00	1 6 1 5000	e (	
GM	aryon	M	1A55		No	24			13	29.0 10 20.0 4	F Jandy Grav	~	SMAD 10-70
	לבוטמו			0.0		.25		100	19	Silty Sandy of	access (GP)	.	1.13.10.0
			ĺ				(X)	1/0	17	24.0 to 26.0 f. Silty Sandy gr Dry Slightly W malsive, NO O DVM HS 0.0	das No Stain	ma	
						26			16	massive, no c	Pale or	mel	
	1	1	İ			أما	1235		**********************************	DVM HS -0.0	yem to pink	, 0	目:
			ĺ			27							1:13:1
04301-2413-0-414 P43444						~			***************************************				
מעטו						26					\ Ani		
SC 10YR	wet	M	455		No	29			<b>(B)</b>	29.0 to 30.5 Classandy gravel, brown CloyRS	yey sand/Cla	ujey	
GC 74	@295		- [	0,0				75	13.	Sandy gravel	Moderategel	now	
				- 1		30	-	15,	15	brown MOYR?	4) wet@2915	oft	
	SAT					-				Massive, Poort 6000, No star OUMHS 0.0	of sorteg. No		
					İ	31		'		odor; No star	leng. Comil	4	
	1		-		İ	32				OVM 15.0.0	from Coost That		
				1		Con			mnmmm.,	1. 0			国 日 日
						33		$\rightarrow$					
						}-			HIMM TURN	21 21-255 01	LANCE L. GO	0 0	
						34			g	34.0 to 35.5 Cla (GC) Orange, W Well rounded/S No cupparent od	yey sandy or	~~~	
6C 6/6	wet	M	155	0,0	NO	است	O	95%	8	(GC) Orange, u	Jet, massive	1	129 121
16			١	,,,,		35			15	well founded/s	ubrounded,		bo Hom
						36	沙七			No exparent od	lor; NO Staini	200	The Care
				1		200				OVM: 0.0 PP	m@ 35.5 ft		TO=35.0
	1				- 1	-				(1			
						}							
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in account of the												1	
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LOCATION MAP 4690 Table Mountain Drive #200 **OLSSON** Golden, CO 80403 See la 1 T. 303.237.2072 F. 303.237.2659 TEST HOLE/ WELL LOG Page 2 of 2 Test/Well Number: RW6-1 Project: Hartwig U.S. 6 Bri doct Date: 12/12/11 Project Number: 641 Logged By: James Hix Drilled By: Dakota Drilling Drilling Method: USA CME.50 Sampling Method: Sput Spoot Elevation: Seal: Bentonite Detector: NM \$808 Grout: Casing Type: Schedule 40 PVC Slot: 0.010 Diameter: Hole Dia.: 7 3/4 F. L. Meter: NA Length: 20 Rt DTP: NO DTW: 25 C+ Well Depth: 30 G Total Depth: 30 Cc Length: 10 -24 Penetration Resistence Soil/Rock Type WELL Sample Recovery LITHOLOGY/REMARKS COMPLETION Depth Color 20 to 21.5fi continued 21 MASS NO SM Artosic Sand & Silt (SM) Dry Subangular Brocky = Massive, No Odor, No Staining OVM HS 0:0 SVA DU 0.0 22 23 Gravelly sitty sand 24 11:00 GM 51R 25.0 to 26.0 (California tule)
Arkosic Sand, Silt, Gravel, Wet I Subangular blocky to well 25'
Rounded, Poorly sorted, large
Pocker 1/2" dia in brass sleeve. WEI 25 NO 19 T NO 26 0,0 11:15 OVM 45 0.0 ppm@ 25-26.5 ft (Sample Splitspoon 26-27.5 ft) 28 29 30.0 to 31.5 ft (splitspoon) 30 80 31 Clay, modification from met Swammar to well Rounded Nooder, No Staining OVMHS \_ O. O. ppm@ Si.5 ft 10=30 ft 684 0.0 NO 125 X WET 11:25 32 FOM 33 34 35

LOC	ATION	MAP	Hu	oy 4					(	M	01.660	NR.I		able Mountain	Drive #	200	
1	0	2W7-1				7,				ノ \	OLSSC	ATES		a, CO 80403 237.2072 F.	303.23	7.2659	
(1)	i	ZW/-I		/	//		15	. 4			TEST HO	LE/ WELL	LOG	P	age /	of 2	)
(1)				Park	\$/		1.25	-				U7-1	Project	Hartwig .	us 6	Bride	ses_
4			0	V 10/				Ň	Date:		/20/11 James	Hix		Number: 011 By: Dakota			
"CE	D.							(1			thod: H5A			ng Method: So			DIAFE
	ation						M58		Seal:	Bou	tonite			Grout: Qui	Kreic		
		ck: <i>/C</i> pe: <i>Sc</i>					7	( ٤	30 ' 1.		2"	Length:	15	Hole Dia.: 7		L. Meter:	N/A-216"
Scre	en Ty	pe: 50	nec h 4	OPV	C SI	ot: C		)			: 2"	Length:	_15 15	Well Depth: 32		tal Depth:	
									Ţ ·			- P	<del></del>	<del></del> -		III III	
Rock	_	ture	Jes	ture	ŧ.	ing	# əle		ole very	ratio		LITHOLOG	Y/REMA	RKS		WELI COMPLE	
Soil/Rock Type	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence							
					<u> </u>		0				£‡	n.7	,		0	COV	E-
	]							######################################			0.0 - G	ravelly (	lay !	brown d	1.	~   #	1 100
a	-						1		C15.	15 30	Du.	skyyey(or	WizM	mour of	y		JAMAS
						NO			95/	90	Clay	OVMHS -	PPH	@ 2.0 fth			2
	]				0.0		2	Markinglah danas			2,0 404	.gtocav	elly a	my mod y	el		И
BC.	22118					No	3		~ Ø	7	prown	dry, mo	assir	ey)		1/1	И
	10 71-	pry		Mass					98%	15/1	No appa	rent odi	K; NO	staining	i		Benta
(SM)					0.0		4			,.,	fine So	nd at i	botton	n (Shelley Huh	e/	$\mathbb{Z}$	chor
							5				OVM AS -	0.0 ppm	@ 4,0	oft.			
	1										Granish	brown	cuthis	uss Fill		A	
***************************************							6			M.N., p. 11. 11. 11. 11. 11. 11. 11. 11. 11.	No Vodos	frown , No Sta	mong			$\mathcal{M}$	
	-						7						U			1/1	BUNUK
***************************************								***************************************	Problems III of all and	***************************************		4				$1/\lambda$	CASIN
SM		moist		MASS		No	8				9.0 40 10	, oft clay	eu 5 /1	ly sand yellowish		1/1	
	6/ar	J. July			6.0		9		100	4 5	1 100	srained.	Prisky	yellowish		1/1	
										¥						1/	
							10			***************************************	No appar	entodo	( NO	Staining		1/1	
. ,							- //				OVMHS _C	20 ppm	109	gt 0		14	
							12									$\mathbb{N}$	
							100										10-20
-							13					4.5	iltu	4.4			SANTO
GM	104R 5/4	Dry.		MASS	0.0		14	-	-0	12 16	14.0 to 1	5.0 ft &	sandy !	gravel (or	2)		12
		0			0.0	No	-		50	13 12	"Coarse,	Arkosia,	WEYIG	raded			Scheel
	Blockis	<u> </u>					15				augula	1, by	Massi Q 14	pe us ode	8		5000
					Ð		16				ONIA HR	0.0 ppm		gravel (or raded ve ft No ode			
***************************************					-		· -	***************************************			INDIA NIGGERU						
							17		50	5	17.0 to	19.0 ft	(split	spoon) (6M) Tounded Go Well Graded (Poorly sprked) of t	<u> </u>	<i>[.]</i> =	
0.64		اسا					186	3	50	5	Sandy	Gravel,	Well	lounded of	i l		
GM		WET		MASS	, ,	No	F	12:50	120/11	5 8	Askosid	wet, Mas	nve,	(Poorly socked)	)	1:13	
					0.0		19			0	OVMH5 -	o. U ppn	n@ 19	of the		国制	
							20				No odor	NO SI	rainen!	7.			
							-										

LOCATION MAP 4690 Table Mountain Drive #200 OLSSON Golden, CO 80403 T. 303.237.2072 F. 303.237.2659 See fage 1 TEST HOLE/ WELL LOG Page 2 of 2 Project: Hastwig USG Bridges Project Number: 011 - 2359 Test/Well Number: RW7-1 Date: 12/20/11 Logged By: James Hix Drilled By: Dekota Dolling Drilling Method: HSA CME55 Sampling Method: Solits Pote Detector: DVM 580B Seal: Bentonitei Elevation: Grout: Gravel Pack: 10-20 Silica Sand Hole Dia.: 7 F. L. Meter: 2" Casing Type: Schodule 40 PVC DTP: ND DTW: 21'2" Diameter: Length: Screen Type: Sch 40 PVC Slot: 0.010 Diameter: Length: 15 Well Depth: \_30 Total Depth: 30 Penetration Resistence Soil/Rock Type WELL Moisture Content Sample # Sample Recovery Structure % Fines LITHOLOGY/REMARKS COMPLETION Staining Vapor Depth Color 21.0 to 22.5 ft Quartz Sand/Ark. = 54 Ft, Saturated, massive, NO odos; No Staining OVMHS 0.0 ppm Q 21.5 ft - 22.5 ft 21 8 NO MUSS 0.0 22 23 24 25 26 27 SAT 28 100 Bedrock-Claystone mod, yellow brown w/ orlange mottles. Dry, Blocky Structure, OVM 45 0.0 pm.
@ 30 ft No odor; No Staining ND Bury 0.0 30 CAP 31 TD=30' TD = 30 ft 1

FORM NO. GWS-31 10/2011	STATE C	FELL CONSTI F COLORADO B13 Sherman St., Main (303) 866-	), OFFICE OF Ste 821, Denv	THE STATE er, CO 80203	E ENGINEE	:R		For Office Use C	Only
1. WELL PE	RMIT NUMBER:	Waii (000) 000 V		0,000 0000					
	NER INFORMATION								
NAME OF \	WELL OWNER:	Colorado De	partment	of Transp	ortation				
MAILING A	DDRESS: 4201 E	East Arkans	as Avenue	е					
CITY: Dei		STATE	: CO		ZIP CODE:	80222			
TELEPHON	NE NUMBER: ( <mark>303</mark>	<sub>.)</sub> 757 <sub>-</sub> 901	11						
	ATION AS DRILLED								
DISTANCE	S FROM SEC. LINE	s: <u>10</u>							
SUBDIVISI	ON: Wier Add	dition			, LOT_	, BLOC	CK, I	FILING (UNIT)	D\\//1 O
	PS Location: GPS eters, Datum must b							Well Designat 498315 n	
STREET A	DDRESS AT WELL	LOCATION:					Northing	: 4397301	m
	SURFACE ELEVATI		feet		DRILLING	METHOD H	SA CME	55	
DATE COM	12/09/	11 TO	OTAL DEPTH	25	feet	DEPTH COM		25 fee	t
5. GEOLOGIC	LOG:	1	T		6. HOLE	DIAM (in.)	From	ı (ft)	To (ft)
Depth	Туре	Grain Size	Color	Water Loc.	7 3/4		0		25
0 to 2 ft	fill	clay	dk brn						
4 to 5 ft	sandy clay	sand-clay	med brn						
9 to 10 ft	silty clay	silt-clay	dk yel brn		7. PLAIN				
14 to 15 ft		sand/gr	yel orn yel brn		OD (in)		Wall Size (in	, , ,	To (ft) 10
	silty sand/grv sand - gravel	gravel	yel brn	V 19.5	2.0	PVC	Sch 40	0	
24 to 26 ft		gravel gravel		V 19.5	-				<u> </u>
24 10 20 11	Sanu - graver	graver	yel brn		,	<del></del>			
					PERFOR	ATED CASINO	3: Screen 9	Slot Size (in):	0.010
					2.0	PVC	Sch 40	10	25
						<del></del> -			
					8. FILTER			KER PLACEME	ENT:
					7	S <u>ilica Sand</u>	Туре	-	
					Size	10-20	-		
						8 to 25 ft	Depth		
					Material	TING RECOR		Interval	Placement
Remarks:					Benton	• •	Density	8 ft - 2 ft	Gravity
remarks.					Quikret			2 ft - 0 ft	
11. DISINFEC	TION: Type N/A	\			Amt. Us				
<b>12.</b> WELL TES	ST DATA:   Check	box if Test Da	ta is submitte	d on Form N	lumber GW	S 39 Supplem	ental Well T	est.	
TESTING ME	THOD								
Static Level _	ft. Da	te/Time measu	red:		,	Production Ra	ate	gpm.	
Pumping Leve	elft. Da	te/Time measu	red		,	Test Length (	hrs)		
Remarks:	the statements made h	arain and know t	ba contonto the	roof and that	, ara trua ta n	ny kaomiodao '	This decume	at is signed and a	antified in
accordance with section 37-91-10	the statements made h Rule 17.4 of the Wate 8(1)(e), C.R.S., and is	r Well Construction punishable by fir	on Rules, 2 CC	R 402-2. [The	e filing of a do	ocument that cor	ntains false st	tatements is a vic	plation of
	me: Olsson Ass				Phon (30	e: 3 <sub>)</sub> 237 <sub>-</sub> 20	)72	License Numb	er:
   Mailing Addre	ss: 4690 Table	Mountain [	Orive #200	)					
Signature:			Print Na	me and Title	es W. Hix	c - Senior F	Project G	eologist	72/21/11

FORM NO. GWS-31 10/2011	STATE O	ELL CONSTI F COLORADC 313 Sherman St.,	), OFFICE OF Ste 821, Denv	THE STATE er, CO 80203	<b>ENGINEE</b>	ER		For Office Use C	Only
		Main (303) 866-	3581 Fax (30	3) 866-3589					
	RMIT NUMBER: NER INFORMATION								
		olorado De	partment	of Transp	ortation				
	DDRESS: 4201 E		•	<u>.</u>					
CITY: Der			: CO		ZIP CODE:	80222			
	IE NUMBER: (303				211 0002.	00222			
	ATION AS DRILLED			ec 8 -	Two 4	□ N or 🔽 S	Range	68 □ For I	XI W
	S FROM SEC. LINE								
SUBDIVISIO	ON: Wier Add	dition					CK .	FILING (UNIT)	
Optional G	<b>PS Location:</b> GPS <b>eters</b> , Datum must b	Unit must use t		settings: For	mat must b	e <b>UTM</b> , Units	Owner's	Well Designati 498747 m	on: <u>RW2-1</u>
STREET AL	DDRESS AT WELL	LOCATION:					Northing	<sub>j:</sub> 439738 m	1
4. GROUND S	SURFACE ELEVATION	on <u>5321</u>	feet		DRILLING	METHOD H	SA CME	55	
DATE COM	IPLETED 12/07/	<mark>11</mark> то	OTAL DEPTH	30	feet	DEPTH COM	PLETED	30 feet	t
5. GEOLOGIC	LOG:	T	T	ı	6. HOLE I	DIAM (in.)	From	n (ft)	To (ft)
Depth	Туре	Grain Size	Color	Water Loc.	7 3/4				30
	<u>fill - gravel/clay</u>								
	clay	clay	dk yelbrn						
10 to 11 ft	clay/silty clay	clay	med brn		7. PLAIN				
20 to 21 ft	sand gravel	sandgravel gravel		V - 20.5	OD (in)		Wall Size (i	n) From (ft)	To (ft) 10
	clayey gravel		pink brn	V - 20.5	2.0	PVC	Sch 40		10
	clayey gravel	clay gravel	•		-				
29 to 30 ft	clay sand/gr	clay gravel						_	
23 10 30 11	olay barrargi	ciay gravei	yor biii		PERFOR	ATED CASINO	3: Screen:	Slot Size (in):	0.010
					2.0	PVC	Sch 40	10 10 10 10 10 10 10 10 10 10 10 10 10 1	30
						<del></del> -		_	
					8. FILTER			KER PLACEME	NT:
					Ī	Silica Sand	Туре		
					Size	10-20			
						8 ft to 30 ft			
						ITING RECOR Amount		Interval	Placement
Remarks:					Benton	ite	Density	8 ft - 2 ft	Gravity
rtemanto.					Sakrete	)		8 ft - 2 ft 2 ft - 0 ft	Trowel
						· · · · · · · · · · · · · · · · · · ·			
	TION: Type N/A				Amt. U				
12. WELL TES	ST DATA: Check	box if Test Da	ta is submitte	d on Form N	lumber GW	S 39 Supplem	ental Well T	est.	
TESTING ME									
	ft. Da								
Pumping Leve	elft. Dat	te/Time measu	red		,	Test Length (	hrs)	<del>.</del>	
Remarks:	he statements made h	erein and know t	he contents the	areof and they	are true to r	ny knowledge .	This docume	nt is signed and o	entified in
accordance with section 37-91-10	Rule 17.4 of the Water 8(1)(e), C.R.S., and is	r Well Construction punishable by fir	on Rules, 2 CC	R 402-2. [The	e filing of a do ation of the c	ocument that cor contracting licens	ntains false st se.]	tatements is a vic	lation of
	ne: Olsson Ass				(30	ne: 3 <sub>)</sub> 237 <sub>-</sub> 20	72	License Numb	er:
Mailing Addres	ss: 4690 Table	Mountain [	Orive #200						
Signature:			Print Na	me and Title	es W. Hi	x - Senior F	Project G	eologist	7ate 12/21/11

FORM NO. GWS-31		YELL CONST OF COLORADO		_	_	-R		For Office Use	Only
10/2011		313 Sherman St.	, Ste 821, Denv	er, CO 80203		_1 (			
		Main (303) 866-	3581 Fax (30	3) 866-3589					
	RMIT NUMBER: NER INFORMATION	J							
_		Colorado De	epartment	of Transp	ortation				
MAILING A	ADDRESS: 4201 E	ast Arkans	as Avenue	<del></del>					
CITY: De	nver	STATE	≣: CO		ZIP CODE	80222			
TELEPHO	NE NUMBER: (303	) <mark>757 - 90</mark>	11						
	ATION AS DRILLE								
DISTANCE	S FROM SEC. LINE	S: <u>225</u>	ft. from						
	ON: Wier Add						Owner's	FILING (UNIT) s Well Designa	tion: RW3-2
	GPS Location: GPS eters, Datum must b						Easting	498747 n	1
STREET A	DDRESS AT WELL	LOCATION:					Northin	g: 4397381	m
	SURFACE ELEVATI		feet		DRILLING	METHOD H	SA CME	55	
DATE CON	UPLETED 12/07/	<u> 2011 т</u>	OTAL DEPTH	25	feet	DEPTH COM		25 fee	et
5. GEOLOGIC		1	1	T	6. HOLE		_	n (ft)	To (ft)
Depth	Type	Grain Size	Color	Water Loc.	7 3/4		0		25
0-2 ft	sandy clay	clay	Yel-Brn		-				
2-5 ft 10-11ft	clayey gravel cobbles	gravel cobbles	Pink/Brn Pink/Brn		<b>7</b> DI AINI	0401410			
16-111t	silty sand	sand	Yel/Orn	V - 15 ft	<b>7.</b> PLAIN OD (in)		Mall Ciza (i	in) From (ft)	To (ft)
20-21ft	sand	sand	Yel-Brn	VIOIC	2.0	Kind PVC	Wall Size (i	in) From (ft) <mark>0</mark>	To (ft) 10
24-25.5 ft	sand/bedrock	claystone	Blue-Gry		2.0		0011 10		
	TKd - Denver	Fm	,		-				
					PERFOR	ATED CASING	G: Screen	Slot Size (in):	
					2.0	PVC	Sch 40	10	25
					-				
					• FU TEE	DACK:	<b>0</b> DAC	VED DI ACEM	TNIT:
					8. FILTER	Silica San		KER PLACEM	EIN I .
					Size	10-20	_   1900		_
					Interval	8 ft to 25	ft Depth		
					<b>10.</b> GROU	JTING RECOF	RD		
						**	Density	Interval	Placement
Remarks:					Benton Sakrete			8 ft - 2 ft	Gravity
-					Sakiete			<u>2 ft - 0 ft</u>	
11 DISINEEC	CTION: Type N/A				Amt. U	cod			
12. WELL TES	ST DATA: Check	k box if Test Da	ita is submitte	d on Form N			ental Well	Test.	
TESTING ME	THOD								
	ft. Da	te/Time measu	red:		,	Production R	ate	gpm.	
	el ft. Da								
Remarks:									
accordance with	the statements made he Rule 17.4 of the Wate 08(1)(e), C.R.S., and is	r Well Constructi	on Rules, 2 CC	R 402-2. [The	e filing of a de	ocument that co	ntains false s	ent is signed and statements is a vi	certified in olation of
Company Na	me: Olsson Ass	sociates			Phor			License Num	ber:
Mailing Addre	ess: 4690 Table	Mountain [	Orive #200						
Signature:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Print Na	me and Title	oe \// ⊔:	x - Senior F	Project C	Coologist	Date 12/21/11
1				Jaiile	JO VV. ∏I.	7 - OCHIOL I	TUJEUL G	culogist	16/6/1/1/1

FORM NO. GWS-31		F COLORADO				:R		For Office Use	Only
10/2011		313 Sherman St., Main (303) 866-	Ste 821, Denv	er, CO 80203					
4 WELLBE	DMIT NUMBER.	Wain (303) 866-	3581 Fax (30	3) 800-3589					
	RMIT NUMBER: NER INFORMATION	1							
NAME OF \	WELL OWNER:	Colorado De	partment	of Transp	ortation				
MAILING A	DDRESS: 4201 E	East Arkans	as Avenue	Э					
CITY: De	nver	STATE	: <b>CO</b>		ZIP CODE:	80222			
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14 to 15 ft	<del></del>		gray brn		7. PLAIN (		M-II O: /:	) F (ft)	T- (#)
19 to 20 ft		clay silt	pale brn		OD (in) 2.0		Wall Size (i <mark>Sch 40</mark>	n) From (ft)	To (ft) 20
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1. WELL PE	RMIT NUMBER:	Wall (303) 600-	0001 Fax (30	3) 600-3369					
	NER INFORMATION	1							
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MAILING A	DDRESS: 4201 E	ast Arkans	as Avenue	Э					
CITY: De	nver	STATE	: CO		ZIP CODE:	80222			
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FORM NO. GWS-31	STATE O	ELL CONSTI	, OFFICE OF	THE STATE	E ENGINEE	≣R	For	Office Use	Only
10/2011		313 Sherman St., Main (303) 866-3			3				
1. WELL PE	RMIT NUMBER:	Wall (303) 000-0	00) Tax (00	3) 000-3309					
	NER INFORMATION	I							
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MAILING A	DDRESS: 4201 E	ast Arkans	as Avenue	Э					
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	fill - gravel clay	gravel clay	dk brn						
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# APPENDIX ~

# **Limited Subsurface Investigation**

August 2012



August 9, 2012

Privileged and Confidential

Marvinetta Hartwig Hartwig & Associates 188 Inverness Drive West, Suite 675 Englewood, CO 80112

RE: Limited Subsurface Investigation and Temporary Groundwater Monitoring Well Installation, U.S. Highway 6 Bridges and Federal, Task Order 4, Denver, Colorado Olsson Associates Project #A11-2359

Dear Ms. Hartwig,

The letter presents the observations and results from a limited subsurface investigation and temporary monitoring well construction performed in June 2012 and a groundwater sampling event performed in July 2012 conducted per Olsson Associate's February 24 2012 scope of work for task order #4. These activities were conducted in connection with the re-construction and redevelopment of the U.S. Highway 6 Bridges near Federal Boulevard in the City and County of Denver. The twelve monitoring wells were located within the Colorado Department of Transportation (CDOT) and the City and County of Denver (CCD) right-of-ways near Barnum Park.

# **Limited Subsurface Investigation**

The limited subsurface investigation was conducted on June 20, 21, 22, and June 25 2012 and included completion of test holes as the temporary monitoring holes MH-1, MH-2, MH-3, MH-4, (Barnum Park) MH-5, MH-6, (U.S. 6 E.B. right-of-way), MH-7, MH-8, MH-9 (U.S. 6 W.B. off ramp to Federal), MH-10 (CCD right-of-way), MH-11 and MH-12 (CDOT properties) as shown on Figure 1. The drilling and well completion work was performed by Site Services, Inc. of Golden, Colorado. Olsson personnel logged the borings to record the lithologies encountered, the depth to groundwater, and observed staining or odors that suggested petroleum hydrocarbon or chemical impacts. Copies of the lithologic logs for each boring are presented in Attachment A. A portion of each soil sample was placed into a sealable plastic bag, and the headspace in the bag was screened using a photoionization detector (PID) to assess for the presence of volatile organic compounds desorbed from the soil.

Olsson personnel oversaw the installation and completion of the temporary groundwater monitoring wells in each of the test holes. No evidence of petroleum hydrocarbon or chemical impacts was observed in any of the soil borings, except for MH-11 between 20 feet and 30 feet below ground surface (bgs). Monitoring hole MH-11 was located on a property CDOT owns that is between the Days Inn motel buildings on the northeast corner of the U.S. 6 off ramp and Federal Boulevard. Soil samples from depths of 20 feet to 30 feet bgs in MH-11 exhibited staining and had a petroleum hydrocarbon odor. Soil samples were collected from the interval at or above the groundwater table and also from the bottom of each boring. These were placed into laboratory provided glass sample jars and were submitted to ALS Laboratories in Houston, Texas for the analysis of the petroleum hydrocarbon constituents, benzene, toluene,

ethylbenzene, and total xylenes (BTEX) by Method SW 8260, total concentrations of the eight Resource Conservation and Recovery Act (RCRA) Metals by SW 6020/SW 7471A, and percent moisture by SW 3550. Additional analyses were requested for the impacted soil samples collected from MH-11. The sample jars were labeled with the date, time, analytical parameters, and were placed into plastic coolers and stored on ice. The soil samples were shipped to ALS Laboratories in Houston, Texas following chain-of-custody protocols and custody seals.

# **Soil Analytical Results**

The BTEX and percent moisture results are shown on Table 1. The percent moisture results allows the laboratory more accurately measure concentrations of the potential compounds of concern by correcting for the moisture content of the sample. The reported BTEX results are compared to the Colorado Soil Evaluation Values (CSEV) established by the Colorado Department of Public Health and Environment (CDPHE) as voluntary soil cleanup standards (July 2011) as part of the Voluntary Cleanup Program. The most stringent soil cleanup standards are usually the groundwater protection level or residential soil standards which are based on toxicology data and potential routes of exposure. These are not enforceable standards like the groundwater maximum contaminant levels (MCLs) used for drinking water, or the equivalent Colorado Basic Water Quality Standards. Copies of the soil analytical results are included in Attachment B.

## Volatile Organic Compounds

The laboratory analytical results reported that benzene concentrations were not detected at or above the laboratory reporting limit of 0.005 milligrams per kilogram (mg/kg) in 23 of the 24 soil samples. The laboratory results for the soil sample collected from MH-11 at 30 feet bgs reported benzene at 1.70 milligrams per kilogram (mg/kg), is above is above the groundwater protection benzene standard of 0.17 mg/kg. The benzene result in this soil sample is also above the residential soil cleanup standard for benzene of 1.2 mg/kg and the worker cleanup standard of 1.6 mg/kg; however, exposure to the residential public or construction workers is unlikely due to the depth at which the soil sample was collected. Benzene is a compound of concern due to potential migration to groundwater.

The results for the MH-11 at 30 feet bgs soil sample also show that ethylbenzene was detected at 1.9 mg/kg, and total xylenes were detected at 1.90 mg/kg; however, these concentrations are well below the soil – groundwater protection levels of 100 mg/kg for ethylbenzene, and 75 mg/kg for xylenes. The residential soil levels for ethylbenzene are 6 mg/kg and for xylenes 710 mg/kg, but again due to the depth at which the sample was collected and low concentrations, ethylbenzene and xylenes are not considered to be compounds of concern.

Concentrations of toluene were reported above the laboratory reporting limit in soil samples MH-9 at 24 feet bgs (0.0065 mg/kg), in MH-11 at 20 feet bgs (0.011 mg/kg), and MH-11 at 30 ft bgs (0.340 mg/kg). Toluene concentrations were reportedly detected at or above the method detection limit, but less than the laboratory reporting limit in soil samples MH-11 at 39 ft bgs (0.0039 mg/kg J), MH-10 at 29 ft bgs (0.0022 mg/kg J), and MH-10 at 34 ft bgs (0.0044 mg/kg J). The "J" qualifier indicates that these results are estimated toluene concentrations below the laboratory reporting limit. The toluene groundwater protection standard is 50 mg/kg in soils, therefore toluene is not considered a compound of concern.

### RCRA Metals

The soil samples were also submitted for total metal concentrations of the eight RCRA metals and the soil results are presented in Table 2. The results indicated that arsenic was detected in concentrations that exceed the arsenic residential soil standard of 0.39 mg/kg in all 24 of the soil samples submitted. The laboratory reported arsenic concentrations that ranged from 0.805 mg/kg to 2.68 mg/kg. The laboratory reports for soil samples are included in Attachment B.

The EPA Region 8 collected 2,700 background soil samples that were analyzed for arsenic in 44 counties in Colorado. The results indicated that the average arsenic concentration in soils for all land uses was 11 mg/kg and 19 mg/kg in urban mixed use areas. These arsenic concentrations are likely due to naturally occurring arsenic in the soils. In a June 2011 guidance document, the CDPHE HMWMD indicates that if the concentrations of arsenic are less than 11 mg/kg, and there are no apparent anthropogenic sources, then arsenic is not considered a compound of concern in subsurface soils.

The soil samples were collected at depths of 15 feet to 39 feet bgs, so anthropogenic sources of the metal impacts are unlikely. Table 2A shows a comparison of the metals concentrations with surficial soil samples that represent natural background in Colorado and the Western United States. The concentrations of arsenic range in Colorado soils ranged from 1.3 parts per million (ppm) to 16 ppm out of 58 samples, with an arithmetic mean of 6.1 ppm and a standard deviation of 3.0 ppm (Dragun and Cherkiri, 2005). Arsenic concentrations in the western United States ranged less than 0.1 ppm to 97 ppm with a mean of 5.2 ppm and a standard deviation of 2.3 ppm (Shacklette and Boerngen, 1984). In soils, ppm is equivalent to mg/kg.

The laboratory reported that concentrations of barium were detected in all 24 soil samples, but all of the laboratory results are well below the residential soil standard of 15,000 mg/kg. The total barium results ranged from 15.7 mg/kg (MH-6 at 35 ft) to 299 mg/kg (MH-5 at 20 ft). The reported barium concentrations suggest that barium in soils is not a compound of concern in subsurface soil.

Cadmium concentrations were not detected in five soil samples (MH-5 at 30 ft, MH-6 at 35 ft, MH-7 at 29 ft, MH-12 at 16 ft, or MH-12 at 23 ft). The results reported for the other 19 soil samples are qualified with a "J" as an estimated value indicating that the cadmium concentrations were detected above the MDL, but below the laboratory reporting limit. Cadmium was not detected at or above the MDL in five of the 24 soil samples. All of the cadmium results are well below the CSEV residential soil standard of 70 mg/kg, so cadmium is not considered a compound of concern in subsurface soil.

The laboratory reported that concentrations of chromium were detected in all 24 of the soil samples submitted from monitoring holes MH-1 through MH-12. The chromium concentrations ranged from 1.43 mg/kg (MH-12 at 16 ft) to 11.4 mg/kg (MH-7 at 20 ft). All of the reported chromium results are well below the CSEV residential soil limit of 120,000 mg/kg; and therefore, chromium is not considered a compound of concern in the subsurface soil.

The laboratory reported that lead concentrations were detected in all 24 of the soil samples. The lead concentrations ranged from 1.89 mg/kg (MH-12 at 23 ft) to 10.4 mg/kg (MH-10 at 29 ft).

The total lead concentrations are all well below the CSEV residential soil standard of 400 mg/kg; and therefore lead is not considered a compound of concern in the subsurface soil.

The laboratory did not analyze the soil samples for total mercury and this was not discovered until after the holding time for analysis had lapsed. Olsson requested that the soil samples be analyzed for total mercury even though they were after the holding time had lapsed. Unlike volatile hydrocarbons the mercury concentration in the samples is not expected to have changed significantly. Subsequent groundwater samples were analyzed for mercury and within the holding time limits. Mercury was not considered a compound of concern as a result of the previous soil sampling effort conducted in December 2011.

The laboratory reported concentrations of selenium were detected in ten of the 24 soil samples. Selenium was reportedly detected at concentrations above the MDL, but below the RL in the remaining 14 soil samples and the results are qualified with a "J" indicating that it is an estimated value. The reported selenium concentrations are all well below the CSEV residential soil standard for selenium of 390 mg/kg. Therefore, selenium is not considered a compound of concern in subsurface soil.

The laboratory reported that concentrations of silver were not detected in any of the 19 soil samples submitted. The laboratory results show that silver was detected above the MDL but below the RL in five of the 24 soil samples. These results are qualified with a "J" meaning that they are estimated values. The silver concentrations range from 0.0726 mg/kg (J) to 0.165 mg/kg J. Therefore, silver does not appear to be an issue with any of the soils, and the laboratory reporting limit of approximately 0.5 mg/kg is well below the CSEV residential soil standard of 390 mg/kg. Silver is not considered to be compound of concern in subsurface soil.

# **Temporary Groundwater Monitoring Hole Installation**

Olsson personnel filed a notice of intent with the Colorado State Engineer's Office at least three days prior to the drilling. The temporary monitoring holes were constructed in accordance with the applicable Colorado State Engineer's Office requirements. Olsson personnel called the Utility Notification Center of Colorado (UNCC) to request that underground utilities be located and marked at least three business days prior to the drilling. Olsson met with utility locators and with representatives of the CCD parks and recreation department onsite prior to drilling to discuss the proposed drilling locations. Olsson notified other underground utility owners directly who are not members of the UNCC system and obtained the necessary permits from both the CCD and CDOT.

The temporary monitoring holes were constructed inside 8 ¼ inch diameter bore holes drilled by Site Services Inc. using a Central Mining Equipment (CME) 75 drill rig and hollow stem augers. Olsson personnel directed the drilling program, logged the bore holes for lithologies encountered, depth to groundwater, evidence of petroleum or chemical impacts, and collected soil samples for laboratory analysis.

All twelve borings were completed as temporary groundwater monitoring wells, using 2-inch diameter schedule 40 polyvinyl chloride (PVC), 0.010-inch factory slotted screen, and 2-inch diameter schedule 40 PVC blank pipe casing. The total depths ranged from 25 feet bgs to 40 feet bgs. Between 10 feet to 15 feet of screen were used in each well. A threaded bottom cap

was installed at the base of the screen section. The annulus around the screen from the bottom of the boring was filled with 10-20 silica sand.

The sand pack was brought up to two feet above the top of the well screen. The remaining annular space in the wells around the blank PVC pipe casing was filled with 3/8-diameter bentonite crumbles up to approximately one foot bgs. Potable water was used to hydrate the bentonite to form a seal in the well annulus. The PVC casing was capped with a locking, expandable J-plug. The top of each well was completed with a flush-mounted, traffic rated well box with a removable bolted cover. The well flush-mounted well box was grouted in place using quick setting concrete to protect the wells.

## **Groundwater Sampling**

Groundwater level measurements were recorded in each of the monitoring holes on July 9, 2012. The depth to groundwater ranged from 8.87 feet bgs in MH-4 to 36.56 feet bgs in MH-5. Olsson personnel also measured groundwater levels in the monitoring wells installed in December 2011 within the retaining wall geotechnical borings along U.S. Highway 6 east of Federal Boulevard. The fluid levels were taken to enable the preparation of groundwater contour maps of the area, as shown on Figure 2 and Figure 3.

Grab groundwater samples were collected on Tuesday July 10, 2012. The grab groundwater samples were collected using dedicated, disposable bailers and nylon rope. The samples were placed into laboratory provided containers and were shipped on ice to ALS Laboratories in Houston, Texas following chain-of-custody protocols and custody seals. The groundwater samples were submitted for laboratory analysis of BTEX by SW 8260, Oil & Grease E 1664, gasoline range organics (GRO) SW 8015, diesel range organics (DRO) SW 8015M, oil range organics (ORO) SW 8015M, total concentrations of the 8 RCRA metals SW 6020/SW 7471A, pH by E150.1, Total Suspended Solids (TSS) M2540D, and E.Coli by SM 9221F. The E.Coli samples were analyzed by Industrial Laboratories in Wheat Ridge, Colorado.

Field parameters for pH and dissolved oxygen were measured in the field for the new monitoring hole locations prior to sampling. The pH values for all twelve temporary wells were within the acceptable range of 6 to 9 standard pH units. The dissolved oxygen readings were also within expected ranges. Specific conductance and oxidation-reduction potential (ORP) were not measured. The fluid level measurements and field data are presented in Table 3.

# **Groundwater Analytical Results**

Groundwater samples were collected for laboratory analysis of the volatile organic compounds, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and for total petroleum hydrocarbon ranges, which included gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO), and oil and grease. The samples were also submitted for laboratory analysis of pH, TSS, and E.Coli. The results are reported in the following sections and are included in Table 4 through Table 6. Copies of the groundwater sample analytical results are included as Attachment C.

Benzene, Toluene, Ethylbenzene, and total Xylenes in Groundwater Results

The groundwater analytical results show that low concentrations of benzene, toluene, ethylbenzene, and total xylenes were not present in the groundwater samples collected from the eleven of the twelve temporary groundwater monitoring holes. The results for the MH-11

groundwater sample show that benzene concentration of 0.2 milligrams per liter (mg/L) is above the MCL of 0.005 mg/L. Concentrations of toluene, ethylbenzene, and total xylenes were detected in the MH-11 sample, but were reported at concentrations that did not exceed their respective MCLs. Benzene is a compound of concern in groundwater since it exceeds the MCL.

## Total Petroleum Hydrocarbons in Groundwater Results

ALS Laboratory reported that gasoline range organics (GRO) concentrations were not detected in eleven of the twelve samples. The GRO results for the MH-11 groundwater sample showed that GRO was detected at 1.09 mg/L. Low levels of diesel range organics (DRO) were detected in all of the groundwater samples. The DRO results ranged from 0.049 mg/L in the MH-8 sample to 4.2 mg/L in MH-11 groundwater sample and 4.7 mg/L in the MH-12 groundwater sample. Low levels of oil range organics (ORO) were detected in 11 of the 12 groundwater samples. Concentrations of ORO were not detected in the MH-8 groundwater sample. The ORO concentrations ranged from 0.21 mg/L in the MH-5 groundwater sample to 8.4 mg/L in the MH-10 groundwater sample. Since these parameters are not compound specific they do not have enforceable cleanup levels. They do provide information about the range of hydrocarbons which can aid in identifying a source, or whether additional analyses may be warranted.

Concentrations of oil and grease were not detected at or above the laboratory reporting limit of 2 mg/L in groundwater samples collected from MH-5, MH-6, MH-9, MH-10, or MH-12. Concentrations of oil and grease were reported above the MDL, but were not above the RL in groundwater samples from MH-1, MH-3, MH-4, MH-7, and MH-8. Concentrations of oil and grease were detected in the MH-2 groundwater sample at 2.20 mg/L, which is slightly above the laboratory reporting limit. Since this parameter is not compound specific there is no enforceable cleanup level; however, a visible sheen is a trigger for reporting a release or collecting oil and grease from a waste water sample for permitted waste water discharges. No visible sheens were noted in the field logbook during the groundwater sampling activities conducted on July 10, 2012. Oil and grease does not appear to be a concern since there was only one sample result that was slightly above the laboratory reporting limit.

## RCRA Metal Groundwater Results

Groundwater results for the eight RCRA metals are shown on Table 5. The laboratory analytical results for total metal concentrations of the eight RCRA metals show that concentrations of mercury and silver were not detected, were present at concentrations above the MDL but less than the laboratory RL, or were detected but were at concentrations that do not exceed the state water quality standards.

Concentrations of arsenic were reported in eleven of the twelve groundwater samples, and were detected above the MDL in the groundwater sample from MH-9 at 0.00167 mg/L (J). The reported concentrations in nine of the twelve wells exceed the water quality standard of 0.01 mg/L arsenic. Since the soil data suggests that natural background arsenic in the soils is high, the concentrations of arsenic in the groundwater are also expected to be high.

Concentrations of barium were reported in all twelve groundwater samples, and results for five of the groundwater samples exceeded the water quality standard of 2.0 mg/l barium. The barium concentrations ranged from 0.157 mg/L in the MH-7 groundwater sample to 7.12 mg/L in the MH-12 groundwater sample.

Concentrations of cadmium were reported at or above the RL in five of the groundwater samples. The reported cadmium concentrations in the MH-5 and MH-6 groundwater samples were 0.00966 mg/L and 0.00539 mg/L, respectively, which are above the water quality standard of 0.005 mg/L. Cadmium concentrations were estimated above the MDL but below the RL in four of the groundwater samples, and cadmium was reportedly not detected in three of the groundwater samples.

Concentrations of chromium were reported at or above the RL in eleven of the twelve groundwater samples, and exceeds the water quality standard of 0.1 mg/L in nine of these samples. The results for chromium in the groundwater samples ranged from 0.0225 mg/L in the MH-2 groundwater sample to 0.524 mg/L in the MH-5 groundwater sample. The groundwater sample collected from MH-9 had an estimated concentration of chromium at 0.00324 mg/L.

Concentrations of lead were reported at or above the RL in eleven of the twelve groundwater samples and exceeded the water quality standard of 0.05 mg/L in seven of these samples. The results ranged from 0.00949 mg/L in the MH-7 groundwater sample to 0.489 mg/L in the MH-12 groundwater sample. The laboratory reported that lead in the MH-9 groundwater sample was estimated at a concentration of 0.00324 mg/L which was above the MDL, but less than the RL.

Concentrations of selenium were reported at or above the RL in all twelve of the groundwater samples submitted, and exceeded the water quality standard of 0.02 mg/L selenium in eight of the twelve groundwater sample results.

## Total Suspended Solids, pH, and E. Coli Groundwater Results

The TSS laboratory results range from 1,530 mg/L in the MH-4 groundwater sample to 29,100 mg/L in the MH-5 groundwater sample. The TSS results may be skewed since the monitoring wells were not developed prior to collecting grab groundwater samples. Developing the wells may significantly reduce the TSS and total RCRA metal concentrations by removing suspended sediments.

Since pH is temperature dependent it has an immediate holding time; and is therefore, recommended that it be measured in the field. Olsson personnel collected field measurements of pH in the field which are presented in Table 4. The laboratory results for all twelve samples are qualified with an "H" meaning that the samples exceeded holding time. However, all of the results are consistent with the range of pH valves obtained in the field and there were no pH valves that fell outside the acceptable range of 6 to 9 standard pH units.

Groundwater samples from eleven of the wells were submitted to Industrial Laboratories for analysis of E. Coli bacteria. The bottle for the MH-4 E. Coli sample was broken in the field and the well was not sampled. The results show that E. Coli was not detected in eight of the groundwater samples with a reporting limit of 2 most probable number of coliform bacteria per milliliter (MPN/mL). The analytical results show that E. Coli were reported at 2 MPN/mL in both the MH-3 and MH-12 groundwater samples and that the highest concentration was 4 MPN/mL in the MH-6 groundwater sample. The results suggest that E. Coli is not a significant concern.

#### Conclusions

The following conclusions are based on a comparison of the laboratory analytical results for soil and groundwater samples from the twelve monitoring holes with applicable soil and water quality standards. Copies of select photographs showing the drilling of the monitoring holes are presented in Attachment D. The soils were collected from the interval at or above the water table, and from the total depth of the boring. Grab groundwater samples were collected without developing the wells. Therefore, the TSS and RCRA metals results may be skewed by the presence of sediment in the samples. The wells were not developed due to not having a place to dispose of the groundwater purge since the wells were located within the right-of-way of U.S. Highway 6 and CCD Barnum Park property.

#### Benzene

The benzene concentrations in the soil and groundwater samples collected from MH-11 indicate that benzene is a compound of concern. Monitoring hole MH-11 is located on the northwest corner of the CDOT property that is bound by a sidewalk along Federal Boulevard to the west, and surrounded by the Days Inn motel property to the north, east, and south. There is a parking lot directly to the north of the site. The source of these impacts is unknown and could be related to past property usage or from migration of impacted groundwater beneath the property. Due to the depth of the impacts, which were encountered between 20 feet and 30 feet bgs, it is unlikely that these soils pose a significant human health risk to residential or workers unless the soils are excavated. Additional investigation may be warranted to assess the potential sources of the impacted soils and groundwater.

Other analytes, such as toluene, ethylbenzene, and xylenes, were detected in the groundwater sample; however, these parameters are at concentrations that are below their respective groundwater cleanup levels or residential or worker exposure levels, and not of concern. The results also indicate that there are low levels of GRO, DRO, and ORO in the groundwater.

## **Total RCRA Metals**

Arsenic was the only RCRA metal in the subsurface soil samples that was reported above the CSEV Table residential and worker protection levels based on human health risks; however, these concentrations are only applicable to direct ingestion, dermal contact, or inhalation of associated particulates or vapors. Groundwater Protection Levels are listed as "NA" - not applicable since use of the table does not allow for the calculation of a soil concentration. Groundwater results for the of the RCRA metals, arsenic, barium, cadmium, chromium, lead, and selenium, exceed the Colorado Basic Groundwater Standards in several the groundwater samples. The wells were not developed or purged prior to sampling and were likely very turbid, which may have resulted in the elevated metals concentrations. The Colorado Basic Water Quality Standards and MCLs are based on total metals concentrations and therefore, the groundwater samples were not filtered. The TSS numbers are high which suggests that the groundwater samples were turbid due to the wells not being developed prior to sampling.

The elevated total metals concentrations of arsenic, barium, cadmium, chromium, and selenium could pose a problem for disposal if groundwater is encountered during excavation, and if excavation dewatering is required. The CDPHE WQCD may require that the water be treated prior to discharge if the water will be discharged to the South Platte River. The temporary

monitoring wells should be properly abandoned and well abandonment forms should be submitted to the Colorado State Engineer's Office if they are no longer needed.

Olsson appreciates this opportunity to be of service in performing this limited subsurface investigation and groundwater monitoring for Hartwig and Associates. Please contact me at (303) 237-2072 if you have any questions.

Sincerely,

**Olsson Associates** 

James W. Hix

James W. Hix Senior Geologist

Attachments

# **REFERENCES:**

Dragun, James Ph.D., and Chekiri, Khaled, Ph.D., 2005, Elements in North American Soils, Second Edition, Amherst Scientific Publishers, Amherst, MA

Flynn, Jennifer L., 2003, Ground-Water-Quality Assessment of Shallow Aquifers in the Front Range Urban Corridor, Colorado 1954-98, United States Geological Survey, WRI Report 02-4247, USGS Denver, CO

Shacklette, Hansford T., and Boerngen, Josephine G., 1984, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, United States Geological Survey Professional Paper 1270, United States Government Printing Office, Washington, D.C.

# TABLES

Table 1

# Soil Analytical Results - Volatiles U.S. 6 Bridges at I-25 and Federal Blvd.

Denver, Colorado

Sample ID and	Date	Benzene	Toluene	Ethylbenzene	Total	Percent
depth (feet)	Sampled	(mg/kg)	(mg/kg)	(mg/kg)	Xylenes	Moisture
	'	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ 3 3/	( 3 3)	(mg/kg)	(wt%)
CSEV Table residential		1.2	4700	6	710	N/A
CSEV Table worker		1.6	24000	7.8	1000	N/A
CSEV Table GW		-	50	_	75	•
Protection Level		0.17	50	100	/5	N/A
MH-1 @ 20ft	6/20/12	< 0.005	< 0.005	< 0.005	< 0.015	26.1
MH-1 @ 201t	6/20/12	< 0.005	< 0.005	< 0.005	< 0.015	17.5
MH-2 @ 20ft	6/20/12	< 0.005	< 0.005	< 0.005	< 0.015	22.7
MH-2 @ 30ft	6/20/12	< 0.005	< 0.005	< 0.005	< 0.015	19.6
MH-12 @ 16ft	6/20/12	< 0.005	< 0.005	< 0.005	< 0.015	1.73
MH-12 @ 23ft	6/20/12	< 0.005	< 0.005	< 0.005	< 0.015	7.77
MH-3 @ 20ft	6/21/12	< 0.005	< 0.005	< 0.005	< 0.015	21.5
MH-3 @ 24ft	6/21/12	< 0.005	< 0.005	< 0.005	< 0.015	27.5
MH-4 @ 15 ft	6/21/12	< 0.005	< 0.005	< 0.005	< 0.015	23.2
MH-4 @ 20 ft	6/21/12	< 0.005	< 0.005	< 0.005	< 0.015	18.3
MH-5 @ 20ft	6/21/12	< 0.005	< 0.005	< 0.005	< 0.015	26.0
MH-5 @ 30ft	6/21/12	< 0.005	< 0.005	< 0.005	< 0.015	1.63
MH-6 @ 35ft	6/22/12	< 0.005	< 0.005	< 0.005	< 0.015	14.6
MH-7 @ 20ft	6/22/12	< 0.005	< 0.005	< 0.005	< 0.015	22.0
MH-7 @ 29ft	6/22/12	< 0.005	< 0.005	< 0.005	< 0.015	10.6
MH-8 @ 20ft	6/22/12	< 0.005	< 0.005	< 0.005	< 0.015	28.8
MH-8 @ 24ft	6/22/12	< 0.005	< 0.005	< 0.005	< 0.015	23.7
MH-9 @ 15ft	6/25/12	< 0.005	< 0.005	< 0.005	< 0.015	23.6
MH-9 @ 24ft	6/25/12	< 0.005	0.0065	< 0.005	< 0.015	24.6
MH-11 @ 20ft	6/25/12	< 0.005	0.011	< 0.005	< 0.015	14.8
MH-11 @ 30ft	6/25/12	1.70	0.340	1.90	1.90	29.6
MH-11 @ 39ft	6/25/12	< 0.005	0.0039 J	< 0.005	< 0.015	24.6
MH-10 @ 29ft	6/25/12	< 0.005	0.0022 J	< 0.005	< 0.015	27.8
MH-10 @ 34ft	6/25/12	< 0.005	0.0044 J	< 0.005	< 0.015	25.6
·					<b>.</b>	

Notes: CSEV – Colorado Soil Evaluation Values, Colorado Department of Public Health and Environment (CDPHE) Soil Cleanup Standards (July 2011)
The CSEV Table has values based on human health risk from direct ingestion of soil, dermal contact with soil, and inhalation from associated particulate or vapors in residential (general public) and for construction workers. These standards may not be applicable due to the depths at which these samples were collected unless excavation would expose

the soils at these depths. The CSEV Table also has Groundwater Protection Levels for specific organic compounds which may be more applicable to this data set.

Values in bold exceed the residential soil standard

mg/kg – milligrams per kilogram

N/A - not applicable

NR - not reported

Percent Moisture in Weight Percent (wt %) Percent moisture is a parameter used to correct for the volume of volatile organic compounds in the soil samples.

<sup>&</sup>lt; - Analyte not was detected above the laboratory reporting limit (RL)

J - indicates that the analyte was detected above the method detection limit (MDL), but below the laboratory reporting limit.

Table 2

# Soil Analytical Results – Total RCRA Metals U.S. 6 Bridges at I-25 and Federal Blvd.

## Denver, Colorado

Sample ID and	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
depth (feet)	Sampled	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
CSEV Table residential	-	0.39	15000	70	120000	400	13	390	390
CSEV Table worker		1.6	160000	770	1500000	800	160	5100	5100
CSEV Table GW Protection Level		NA	NA	NA	NA	NA	NA	NA	NA
MH-1 @ 20ft	6/20/12	2.16	134	0.131 J	7.71	8.57	NA	0.528	< 0.480
MH-1 @ 34ft	6/20/12	2.28	180	0.130 J	10.3	9.04	NA	0.805	< 0.457
MH-2 @ 20ft	6/20/12	2.03	187	0.120 J	6.72	7.75	NA	0.568	0.0726 J
MH-2 @ 30ft	6/20/12	2.28	209	0.139 J	8.98	8.50	NA	0.419 J	< 0.435
MH-12 @ 16ft	6/20/12	0.930	23.6	< 0.484	1.43	2.19	NA	0.431 J	< 0.484
MH-12 @ 23ft	6/20/12	0.841	25.0	< 0.441	1.59	1.89	NA	0.426 J	< 0.441
MH-3 @ 20ft	6/21/12	1.70	183	0.141 J	8.79	8.89	NA	0.560	< 0.450
MH-3 @ 24ft	6/21/12	2.23	258	0.273 J	8.10	8.31	NA	0.733	< 0.479
MH-4 @ 15 ft	6/21/12	1.95	168	0.122 J	8.38	7.74	NA	0.514	< 0.481
MH-4 @ 20 ft	6/21/12	3.22	286	0.0962 J	5.93	5.73	NA	0.409 J	< 0.483
MH-5 @ 20ft	6/21/12	2.05	299	0.132 J	6.98	7.30	NA	0.384 J	< 0.442
MH-5 @ 30ft	6/21/12	0.806	19.3	< 0.444	2.56	3.28	NA	0.278 J	< 0.444
MH-6 @ 35ft	6/22/12	0.805	15.7	< 0.432	3.98	2.14	NA	0.177 J	< 0.432
MH-7 @ 20ft	6/22/12	2.58	121	0.0900 J	11.4	9.84	NA	0.507	< 0.468
MH-7 @ 29ft	6/22/12	1.07	29.4	< 0.445	6.60	4.25	NA	0.408 J	0.165 J
MH-8 @ 20ft	6/22/12	2.37	103	0.0881 J	9.59	8.98	NA	0.440	< 0.434
MH-8 @ 24ft	6/22/12	1.64	278	0.0496 J	4.95	5.37	NA	0.310 J	< 0.451
MH-9 @ 15ft	6/25/12	1.63	183	0.101 J	6.86	8.98	5.20	0.221 J	0.0770 J
MH-9 @ 24ft	6/25/12	1.31	159	0.0917 J	7.98	6.86	3.88	0.482	< 0.468
MH-11 @ 20ft	6/25/12	2.16	118	0.159 J	6.99	9.86	4.33	0.324 J	< 0.467
MH-11 @ 30ft	6/25/12	1.68	223	0.183 J	7.65	8.48	5.44	0.541	0.159 J
MH-11 @ 39ft	6/25/12	1.31	75.8	0.102 J	6.28	7.54	3.97	0.244 J	< 0.468
MH-10 @ 29ft	6/25/12	2.68	168	0.437 J	8.35	10.4	5.40	0.318 J	< 0.462
MH-10 @ 34ft	6/25/12	1.71	193	0.179 J	8.19	10.4	4.12	0.233 J	0.0957 J

N/A - Not Applicable

NA – Not Analyzed (ALS Environmental Laboratory did not analyze for mercury in some of the soil samples although it was requested. Olsson has requested that these soil samples be analyzed for mercury outside of holding time.)

mg/kg – milligrams per kilogram mg/L – milligrams per liter

J – Estimated concentration reported above the method detection limit (MDL) but below the reporting limit (RL)

< - Analyte not detected above the method detection limit (MDL)

Notes: CSEV – Colorado Soil Evaluation Values, Colorado Department of Public Health and Environment (CDPHE) Soil Cleanup Standards (July 2011) Values in bold exceed the residential soil standard for arsenic.

(The CSEV table has Groundwater Protection Levels for organic compounds, but not for inorganic compounds. There are Leachate Reference Concentrations for arsenic (0.22 mg/L), barium (44 mg/L), cadmium (0.11 mg/L), chromium (2.2 mg/L), lead (1.1 mg/L), mercury (0.0011 mg/L), selenium (0.02 mg/L), and silver (0.05 mg/L). These are not directly comparable since the results are total metal concentrations reported in milligrams per kilogram rather than milligrams per liter. The leachate potential can be approximated by dividing the above results by 20.

# Table 2A - Published Background Values

# Comparison of Soil Analytical Results – Total RCRA Metals U.S. 6 Bridges at I-25 and Federal Blvd. Denver, Colorado

Reference	Statistics	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Dragun &	Range	1.3 – 16	100 – 2000	ND – 11	3.0 – 100	ND – 100	0.01 - 1.30	< 0.1 – 26	< 0.5 – 1.5
Chekiri 2005	(N)	(58) co	(72) co	(778) w. U.S.	(72) co	(72) co	(58) co	(58) co	(168) co
	Mean	6.1	689		43	30	0.074	0.43	< 0.5
	Deviation	3.0	301		23	22	0.171	0.45	
Shacklette &	Range	< 0.1 – 97	70 – 5000	NA	< 0.1 – 4.3	< 10 – 700	< 0.1 – 4.6	< 0.1 – 4.3	NA
Boerngen,	(N)	(1257)	(1319)	NA	(1319)	(1319)	(1267)	(1267)	NA
1984	Mean	5.2	440	NA	0.23	17	0.046	0.23	NA
	Deviation	2.3	1.72	NA	2.43	1.8	2.33	2.43	NA

#### Notes

ppm - parts per million (approximately mg/kg)

Range - range of sample results

(N) - Number of samples collected/analyzed (co - Colorado soils, w. U.S. - Western United States)

Mean - arithmetic mean

Deviation - Standard deviation

#### References:

Dragun and Chekiri, 2005, Elements in North American Soils, Second Edition, Amherst Scientific Publishers, Amherst, MA

Shacklette and Boerngen, 1984, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, USGS Professional Paper 1270, U.S. Government Printing Office, Washington, D.C.

Table 3

Groundwater Analytical Results – Field Parameters
U.S. 6 Bridges at I-25 and Federal Boulevard – Task Order 4

Denver, Colorado

Sample	Date	Depth to	Measuring	Approximate	Temper-	Dissolved	рН	Specific	ORP
ID	Sampled	Water	Point	Groundwater	ature (°C)	Oxygen	(s.u.)	Conductance	OIXI
	Campica	(ft-bgs)	Elevation	Elevation (ft)	atare ( o)	(mg/L)	(3.4.)	(mg/cm <sup>3</sup> )	
		(It-bgs)	(ft)	Lievation (it)		(IIIg/L)		(mg/cm/)	
DWAO	04/04/0040	00.00		5400.07	40.40	0.54	0.0	4.405	05.5
RW 1-2	01/04/2012	22.00	5214.27	5192.27	16.43	0.54	6.6	1.405	- 25.5
D14.0.4	07/09/2012	22.13	5000.40	5192.14	NM	NM	NM	NM	NM
RW 2-1	01/04/2012	17.01	5209.19	5192.18	17.27	0.44	6.3	1.617	8.4
	07/09/2012	17.09		5192.10	NM	NM	NM	NM	NM
RW 3-2	01/04/2012	14.52	5208.11	5193.59	15.43	0.22	5.6	1.269	187.5
	07/09/2012	14.68		5193.43	NM	NM	NM	NM	NM
RW 5-1	01/04/2012	29.71	5222.43	5192.72	17.67	0.43	6.2	1.524	11.2
	07/09/2012	29.89		5192.54	NM	NM	NM	NM	NM
RW 6-1	01/04/2012	25.50	5218.23	5192.73	17.32	0.60	6.4	1.423	26.5
	07/09/2012	25.53		5192.70	NM	NM	NM	NM	NM
RW 7-1	01/04/2012	20.50	5214.10	5193.60	16.07	0.40	6.8	1.372	337.2
	07/09/2012	20.55		5193.55	NM	NM	NM	NM	NM
MH-1	07/09/2012	17.94	5256.92	5238.98	NR	0.21	7.36	NM	NM
MH-2	07/09/2012	19.59	5256.39	5236.80	NR	0.32	7.17	NM	NM
MH-3	07/09/2012	20.46	5258.44	5237.98	NR	0.22	7.29	NM	NM
MH-4	07/09/2012	8.87	5238.22	5229.35	NR	0.26	7.48	NM	NM
MH-5	07/09/2012	36.56	5228.44	5191.88	NR	0.15	7.76	NM	NM
MH-6	07/09/2012	32.26	5224.20	5191.94	NR	2.42	7.03	NM	NM
MH-7	07/09/2012	18.50	5229.64	5211.14	NR	0.40	7.26	NM	NM
MH-8	07/09/2012	8.30	5232.34	5224.04	NR	0.24	7.74	NM	NM
MH-9	07/09/2012	7.88	5235.09	5227.21	NR	0.38	7.79	NM	NM
MH-10	07/09/2012	25.60	5253.39	5227.79	NR	0.25	7.54	NM	NM
MH-11	07/09/2012	27.34	5253.99	5226.65	NR	0.52	7.45	NM	NM
MH-12	07/09/2012	17.14	5208.70	5191.56	NR	1.17	6.88	NM	NM

#### Notes:

Groundwater level measurements were taken using an oil/water interface probe. The groundwater elevations were calculated from survey elevation data provided by the Lund Partnership and Rocksol. Field parameter data was collected using a downhole YSI model 556 water quality meter.

Ft-bgs: Feet below ground surface (°C) – Temperature in degrees centigrade Mg/L – milligrams per liter s.u. – standard units of pH mg/cm³ - milligrams per cubic centimeter

ORP – oxidation reduction potential

NM – Not Measured NR – Not Recorded

TABLE 4

# Groundwater Analytical Results – BTEX and Total Organic Compound Results U.S. 6 Bridges at I-25 and Federal Boulevard, Task Order 4

## Denver, Colorado

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	GRO	DRO	ORO	Oil and
ID	Sampled	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Grease
									(mg/L)
CDPHE-WQCD MCLs		0.005	1.0	0.680	10	NS	NS	NS	Visual
MH-1	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	0.72	0.90	0.682 J
MH-2	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	3.4	4.3	2.20
MH-3	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	18	26	0.667 J
MH-4	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	4.0	5.6	0.889 J
MH-5	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	0.14	0.21	< 2.0
MH-6	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	0.75	0.98	< 2.0
MH-7	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	1.6	2.2	1.30 J
MH-8	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	0.049	< 0.094	1.60 J
MH-9	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	0.68	0.96	< 2.0
MH-10	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	5.9	8.4	< 2.0
MH-11	07/09/2012	0.2	0.011	0.0083	0.084	1.09	4.2	6.2	NA
MH-12	07/09/2012	< 0.005	< 0.005	< 0.005	< 0.015	< 0.05	4.7	6.9	< 2.0

mg/L - Milligrams per Liter

NS - No Standard

NA – Not Analyzed

BTEX - benzene, toluene, ethylbenzene, and xylenes (SW8260)

GRO - gasoline range organics (SW8015)

DRO - diesel range organics (SW8015M)

ORO – oil range organics (SW8015M)

CDPHE-WQCD – Colorado Department of Public Health and Environment Water Quality Control Division MCL – maximum contaminant level (Drinking Water Standards)

- < Analyte was not detected above the laboratory method detection limit or reporting limit
- J Analyte was detected above the method detection limit, but was less than the laboratory reporting limit (estimated value)

Note: The benzene value reported in the MH-11 sample is shown in **bold** because it exceeds the MCL of 0.005 mg/L. Concentrations of toluene, ethylbenzene, and total xylenes were also detected in the sample but were not above the MCL.

# Table 5 Groundwater Analytical Results – RCRA Metal Results U.S. 6 Bridges at I-25 and Bryant Street

#### Denver, Colorado

Sample	Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
ID	Sampled	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
5 CCR 1002-41 Regulation 41		0.01	2.0	0.005	0.1	0.05	0.002	0.05	0.05
5 CCR 1002-38 Regulation 38		0.0002 (ch) 0.340 (ac)	2.0	0.005	0.050	0.05	0.01 (total)	0.05	0.05
CSEV 2011 Water Standard		0.01	2.0	0.005	0.1	0.05	0.0011	0.02	0.05
MH-1	07/10/12	0.0663	4.14	0.00428	0.311	0.275	0.000201	0.0171	0.00137 J
MH-2	07/10/12	0.00516	0.338	< 0.002	0.0225	0.0181	< 0.0002	0.0132	< 0.005
MH-3	07/10/12	0.0230	1.53	0.00149 J	0.140	0.150	0.000109 J	0.0453	< 0.005
MH-4	07/10/12	0.0298	1.56	0.00171 J	0.127	0.0988	0.0000730 J	0.0418	< 0.005
MH-5	07/10/12	0.0479	5.24	0.00966	0.524	0.459	0.000188 J	0.0919	0.00968
MH-6	07/10/12	0.0666	6.84	0.00539	0.420	0.387	0.000454	0.0870	0.0142
MH-7	07/10/12	0.00265	0.157	< 0.002	0.0124	0.00949	< 0.0002	0.0692	< 0.005
MH-8	07/10/12	0.00594	0.304	< 0.002	0.0271	0.0240	< 0.0002	0.0423	< 0.005
MH-9	07/10/12	0.00167 J	0.0604	0.00324 J	0.00324 J	0.00286 J	< 0.0002	0.00859	< 0.005
MH-10	07/10/12	0.0591	2.97	0.00382	0.200	0.229	0.000179 J	0.0444	0.00145 J
MH-11	07/10/12	0.0199	0.930	0.000944 J	0.0861	0.0667	0.0000560 J	0.0170	< 0.005
MH-12	07/10/12	0.127	7.12	0.00251	0.317	0.489	0.000323	0.0729	0.0107

#### Notes:

Colorado Department of Public Health and Environment (CDPHE) 5 CCR 1002-41 (Regulation 41) Water Quality Control Commission – The Basic Standards for Groundwater Amended, October 2009

CDPHE 5 CCR 1002-38 (Regulation 38) Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Amended June 13, 2011. The values are for the Upper South Platte River Basin, Stream Segment 14 – Main stem of the South Platte River from the outlet of Chatfield Reservoir to the Burlington Ditch diversion in Denver, Colorado. Arsenic (acute) = 0.340 mg/L (dissolved), Arsenic chronic = 0.0002 mg/L (total recoverable)\*

CSEV - Colorado Soil Evaluation Values, Water Standard CDPHE - Water Standards (July 2011)

Values in **bold** exceed one or more of the Groundwater Standards. Therefore, if groundwater is encountered in excavations and results in dewatering, the groundwater may require treatment prior to discharge to surface waters to meet the standards. The depth to groundwater ranged from 7.88 feet below ground surface (bgs) in (MH-9 to 36.56 feet bgs in MH-5 as measured on 07/09/12.

mg/L – milligrams per liter (Total metal concentrations were reported . These samples are grab samples without prior well development or sample filtration.)

- J Estimated concentration reported above the method detection limit (MDL) but below the reporting limit (RL)
- < Analyte not detected above the method detection limit (MDL)

(ac) acute (1-day)

(ch) chronic (30-day)

Trec – total recoverable metal concentration

\*The Colorado Department of Transporation (CDOT), the Regional Transportation District (RTD), and the City and County of Denver requested an emergency adoption of a revision to the water + fish arsenic standard for Segment 14 of the Upper South Platte River Basin in order to facilitate the issuance of Colorado Discharge Permit System (CDPS) permits to segment 14 with chronic arsenic effluent limitations that are achievable with current and reasonable treatment capabilities. The Commission found that he revision was necessary since achieving arsenic discharge permit limitation sthat result from the current arsenic standard appear to be technologically unachievable. CDOT, RTD, and the City and County of Denver have expended significant public funds for multiple projects attempting to comply with the limits. Therefore, the Commission adopted the emergency temporary modification for the chronic arsenic standard for Segment 14.

It is possible that the treatment used to achieve the arsenic limit would also result in lowering the concentrations of the other metals that exceed limits. Since the samples represent unfiltered grab samples from undeveloped monitoring wells, Olsson recommends that the wells be re-sampled and filtered for dissolved metal concentrations or that the wells be developed and re-sampled for total metal concentrations.

Table 6

# Groundwater Analytical Results – pH, TSS, and E. Coli U.S. 6 Bridges at I-25 and Bryant Street

## Denver, Colorado

Sample ID	Date	pH (s.u.)	Total Suspended Solids (mg/L)	E. Coli (MPN/ml)		
	Sampled					
5 CCR 1002-41 Regulation 41		6.5 to 9.0	N/A	N/A		
5 CCR 1002-38 Regulation 38		6.5 to 9.0	N/A	126/100 ml		
5 CCR 1002-62 Regulation 62		6.0 to 9.0	45 mg/L (7-day) 30 mg/L (30-day)	N/A		
CSEV 2011		N/A	N/A	N/A		
MH-1	07/10/12	7.04 H	5,510	< 2		
MH-2	07/10/12	6.86 H	9,590	< 2		
MH-3	07/10/12	6.93 H	11,400	2		
MH-4	07/10/12	7.18 H	1,530	NS		
MH-5	07/10/12	6.94 H	29,100	< 2		
MH-6	07/10/12	6.64 H	26,600	4		
MH-7	07/10/12	6.96 H	3,740	< 2		
MH-8	07/10/12	8.09 H	3,290	< 2		
MH-9	07/10/12	7.36 H	5,830	< 2		
MH-10	07/10/12	7.13 H	8,430	< 2		
MH-11	07/10/12	6.99 H	12,600	< 2		
MH-12	07/10/12	6.44 H	26,200	2		

#### Notes:

5 CCR 1002-41 (Regulation 41) Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission - The Basic Standards for Groundwater.

Amended October 2009, and 5 CCR 1002-62 (Regulation 62) Regulations for Effluent Limitations Amended February 2008

CDPHE 5 CCR 1002-38 (Regulation 38) Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Amended June 13, 2011. The values are for the Upper South Platte River Basin, Stream Segment 14 – Main stem of the South Platte River from the outlet of Chatfield Reservoir to the Burlington Ditch diversion in Denver, Colorado.

CDPHE 5 CCR 1002-62 (Regulation 62) Regulations for Effluent Limitations Amended February 2008

CSEV - Colorado Soil Evaluation Values, CDPHE July 2011

mg/L- milligrams per liter

N/A - Not Applicable

E. Coli - Escherichia coli bacteria

MPN/ml - most probable number per milliliter

#### < - Analyte not detected above the method detection limit (MDL)

H – Analyte was run outside of holding time. Since pH is temperature dependent, pH has an immediate sample hold time and should be measured in the field. Olsson personnel measured pH in the field as shown in Table 4.

NS - Not Sampled (Sample bottle for MH-4 was broken)

# FIGURES

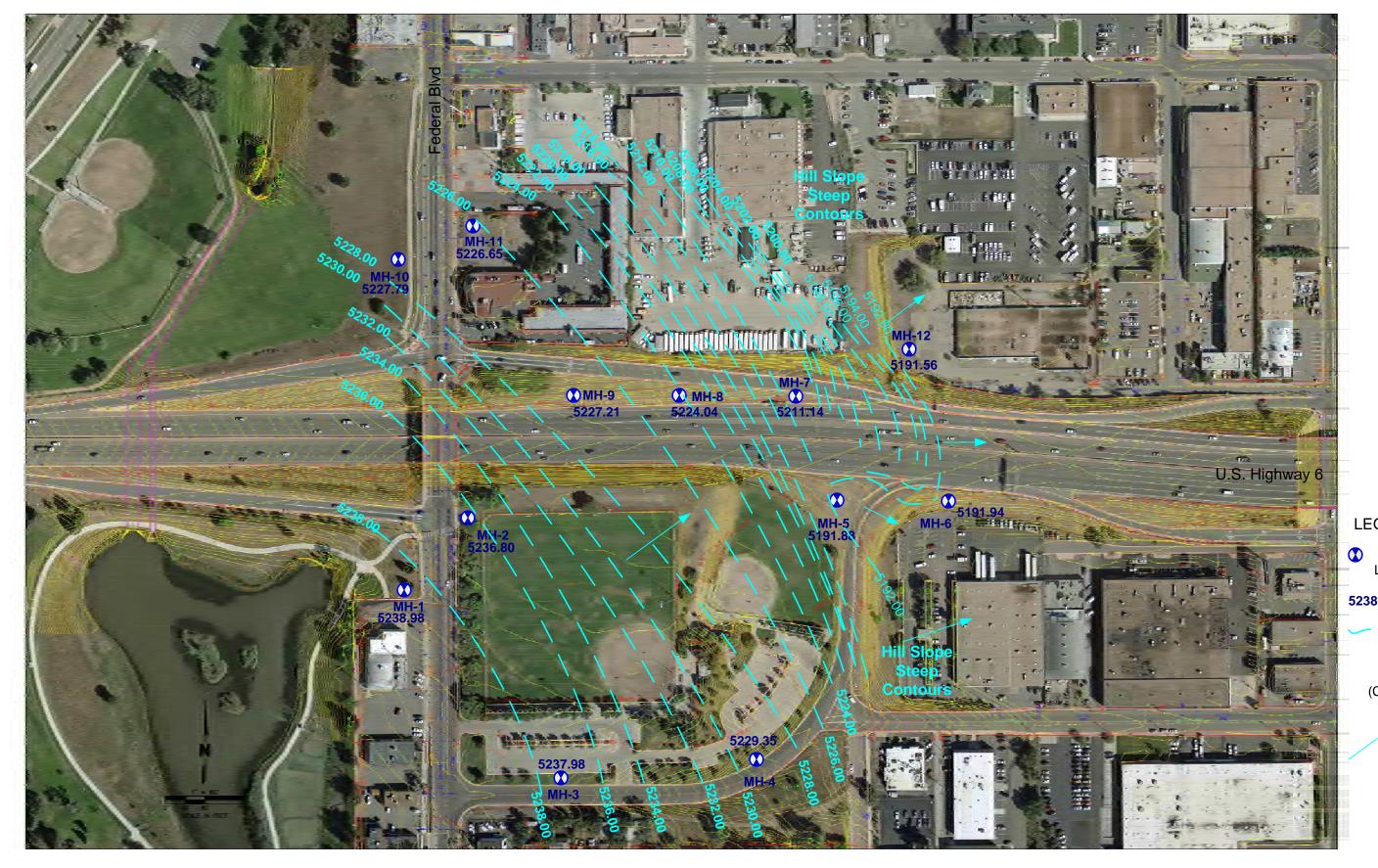


PROJECT NO: A11-2359

DRAWN BY: JWH

DATE: 04/30/2012

Temporary Monitoring Well Locations U.S. Highway 6 Bridges – Task Order 4



LEGEND:

Temporary Monitoring Well Location

Measured Groundwater Elevation

Groundwater Contour

(Contour Interval = 2 feet)

Approximate Groundwater Flow Direction

A11-2359 PROJECT NO:

DRAWN BY: JWH DATE: 04/30/2012

U.S. Highway 6 and Federal Boulevard – Task Order 4 Groundwater Elevation Contour Map July 2012



# **⊕**P-18 **⊕**R-11 **⊕**P-15 **₽**RW3-2 @RW3-1 **OBR-22** ⊕BR-21 **⊕**C-1 **₽RW2-2 OBR-16** @RW2-1 @P-3 **OBR-13 OBR-8** 5192.18 ©BR-12 © BR-10A €BR-5 **⊕**C-2 ●RW4-2 ORW4-1 **⊕**RW5-2 **⊕**P-9

# LEGEND:

Geotech Boring Location

# RW1-2

Retaining Wall Geotech Boring Location Completed as a Temporary Monitoring Well

5192.72 Measured Groundwater Elevation

# 5193.50

Groundwater Elevation Contour (Contour Interval 0.5 feet)

> Approximate Groundwater Flow Direction

# TEMPORARY GROUNDWATER MONITORING WELL LOCATIONS – JULY 2012 GROUNDWATER LEVELS

PROJECT NO: A11-2359

DRAWN BY: JWH

DATE: 08/06/12

U.S. Highway 6 Bridges Denver, Colorado

4690 Table Mountain Drive #200 Golden, CO 80403 TEL 303.237.2072 EXHIBIT

# ATTACHMENT A SOIL BORING LITHOLOGIC LOGS

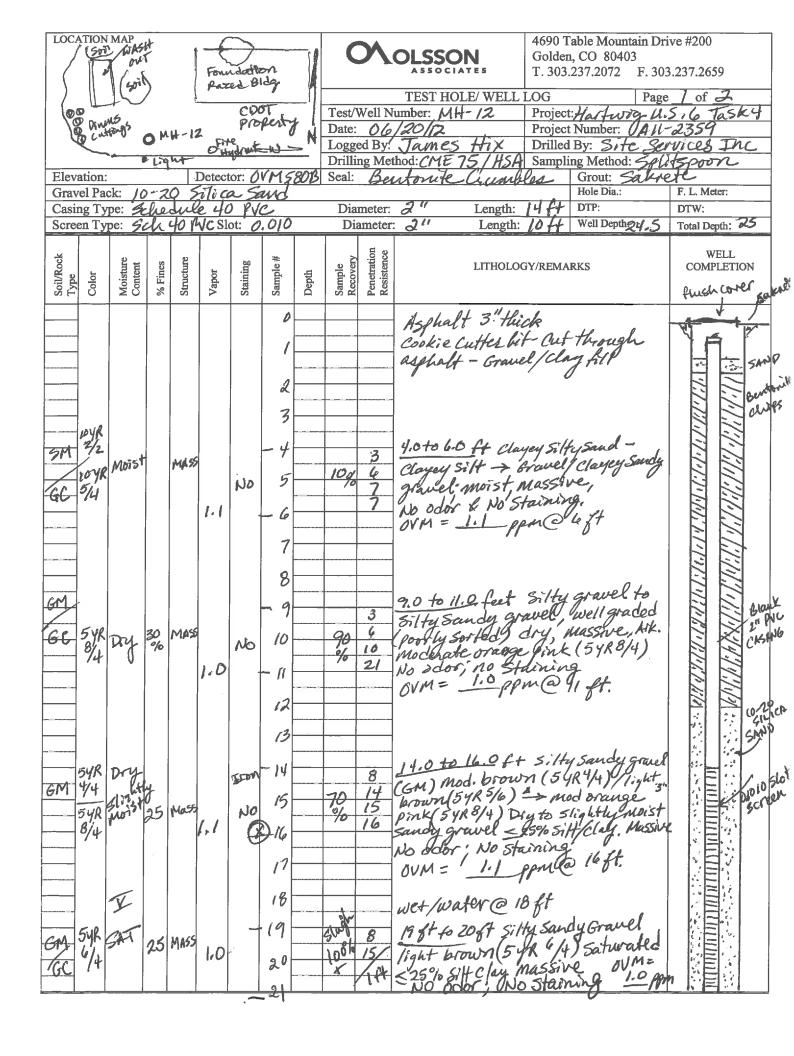
	LOC	LOCATION MAP							UND.	01	OLSSON	Golder	4690 Table Mountain Drive #200 Golden, CO 80403 T. 303.237.2072 F. 303.237.2659			
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	Cricultate D							FEI	Logged By: Drilling Me	Logged By: Jumes Hix Drilled By: Site Services Drilling Method: HSA / (ME 75 Sampling Method: Split Spoon 2						
							M580	B	Seal: Bentonite Crumbles / Chips Grout: Duik			Grout: Quike	rete:			
	Casi	ng Ty	/pe: 5	che	dul	2.40	PVC	ン	70	Diameter:	2" Length	145'	DTP: ND	DTW:		
	Scre	en Ty	pe: 50	l y	rv	C SIG	ot: <i>O</i> ,	010		Diameter	Eengtl	1: 15°	Well Depth: 29,5	Total De	pth: 34 '	
	Soil/Rock Type	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery Penetration Resistence	LITHOL	OGY/REMA	RKS	COMP	ELL LETION	
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Scre	en Ty	pe: 50	h	OR	اکرSI	ot: O	.010	ar lie orror		ameter		Length		Well Depth:	29.5	Total Depth: 34
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LOC	CATION	Federal Blud da		Trof Dir	fic gut	1150 B	A STATE OF THE STA		Test/\\Date:	Well N O 6/	OLSSON ASSOCIATES  TEST HOLE/ WEL  [umber: MH-2]  [20/12]  James Hix	Golder T. 303 L LOG Project Project Drilled	Page Houtwig U.S. Number: A 11  By: Si fe Se	3.237.2659  e
Ele	vation			<u>'</u>	Detec	tor:///	C 3 1M58	OB			thod: CME 75/HSA	Sampli  c<#8	ing Method: Sold	tspoon.
_	vel Pa		cho	20	Sili	ca	Sai	nd		meter:	-Chips		Hole Dia.: 8,25	F. L. Meter:
Scr	sing Ty een Ty	ре: <i>5</i> ре: <i>5</i>	zhy	o PV	C SI	ot: 0	,010					: ±204 n: 1014	Well Depth: 29	DTW: 23 ft Total Depth: 30 ft
Soil/Rock	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOL	OGY/REMA	RKS	WELL COMPLETION EURS H COVER
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LOCATION MAP			01	OLSSON ASSOCIATES	4690 Table Mountain Dr. Golden, CO 80403 T. 303.237.2072 F. 303	
			Date: 06	TEST HOLE/WELL!  Sumber: MH-2  5/20/12  James Hix	Project: Hartwig W. Project Number: 411- Drilled By: Site Ser	2359
Elevation: Gravel Pack: /	0-20 Silice	tor: OVM 580B	Drilling Mer	thod: CME 75 forute Gumbles	Sampling Method: Sold #8 Grout: Sold Hole Dia.:	tzfoon 2' efe   F. L. Meter:
Screen Type: 4	schodule 40	ot: 0,010	Diameter: Diameter	Length: 2  Length:	t 20 ff DTP: 10 ff Well Depth: 29fd	DTW: 23 ft Total Depth:30 ft
Soil/Rock Type Color Moisture		Staining Sample # Depth	Sample Recovery Penetration Resistence		SY/REMARKS	WELL COMPLETION
3M 10 yR SAF	500 MASS 1,0	21 22 23 24 25 26 27	0 95 2 % 3 3		Clayey Sily Sand  Clayey Sily Sand  No Staining  NH = 1.0 ppm  24 ft  Clay yel-brn  Plastic, Massive  aining  30 ft  TD = 29 ft	11111111111111111111111111111111111111



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	<u></u>						2/1			3	OUNI = DIOPP	no	21 1	4	

LOCATION MAP	<b>O</b> \OLSSON Go	90 Table Mountain Drive #200 olden, CO 80403 303.237.2072 F. 303.237.2659
57	Date: 06/21/12 Pro Logged By: James HX Dr.	Page 2 of 2 Dject: Hartwiz Assoc, Task 4 Dject Number: A11-2359 illed By: Site Services mpling Method: Sot; 150000
Elevation: Detector:	Seal: Bentonite Crumbles/Chi	95 Grout: Salthete
Gravel Pack: 10-20 Silice Sand (28) Casing Type: Schedule 40 PC	3 ft - 16 ft) Diameter: 2" Length: 18 (	Hole Dia.: 8, 25 F. L. Meter:  The DTP: N/D DTW: 23 ft
Screen Type: Schoo NC Slot: 0.010	Diameter: 2" Length: 100	
Soil/Rock Type Color Moisture Content % Fines Structure Vapor Staining Sample #	Sample Recovery Resistence Resistence	WELL
GC 10/R SAT 602 Nass 23 01:31	23.0 to 25.0 ft G	

LOCATION	N MAP				-				<b>X</b>		1	Table Mountain	n Driv	e #200		
									ハ	OLSSON ASSOCIATES		n, CO 80403 .237.2072 F	F. 303.5	237.2659	,	
										TEST HOLE/ WELL	<u></u>			/ of d		
										Sumber: MH-5	Projec	: Harberton	4.5.10	Tock		
								Date:	06	121/12	Projec	t Number: A	11-2	359		
								Logge	ed By:	James Hix	Drilled	By: Site &	servi.	ces		
Elevation	•		1	Detec	tor: A	VM 58	A-B	Seal.	ng Me	thod: CME 75/HSA	Sampl	ing Method: S Grout: Sal				
Gravel Pa		-20	Sil	ira<	Sand	40	1+0	Scar.	<u> Buu</u>	om fer	_	Hole Dia.: 8,	254	F. L. Mete	r:	
Casing Ty	ype: %	heo	lule	40	PVC	112	10	Dia	meter:		25	DTP: ND		DTW: 3		
Screen Ty	/pe: 🥱	hed	40 1	SI	ot: 0	.010		Dia	ameter	Length:	15	Well Depth:		Total Dept		
Soil/Rock Type Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOG	GY/REMA	RKS		WE COMPL		
						0				a result moti		1100		COV	GRO	us
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$\vdash$						ı				tuck glass a	nesal	frage 413	٠		SAN	2
A100 24201201							***************************************	****************	distributes an area a	yrasu.					7	
						1		-	-20111111111111111111111111111111111111						9 1	
						3		~							$\langle j   \perp$	
										1	,	-11.		1/2	·/	
SM 104	3	509	d			- 4			10	4.0 to 6.0 ft ( yellowish brown Hand. 50% Silt 4 NO odos; NO St OVM = 0.0 pp limonitic mottle	Jayey	Silt, pale	2	121	(/	
SM 10 YA	12h	450	MAS	0.0	No	5	***************************************	100	16	yellowish brown	1100	(1 1/2) W	4		/ <sub>'/</sub>	
10	*	55		0.0				%	24	Hard. 50% Silt 4	15% Cl	ay Massiv	ne		(;)	
				}		- 6			30	NO 0008 , NO ST	and	6.0 Ct.			/:/	
										OVM = 0.0 pp	yn E	4 811			(y	
						7				limonitic mitte	es			1/1	$Z_{i}$	
						8									<u> </u>	
								-				1/- value	fa.o.		/	
CL 1041	Pry	60Cl	MASS			-9			4	9.0 to 11.0 ft C makesate yellow BA Pr. 60% Clay 35	100 -	Claysford			/	
10x 5/4	0	55	1	0.0	NO	امنا	M	100	9	moderate yellow B	de 11	440CC NO	ן ני		7	
717 19		01			-	10		10/4	14	Pry, 60% Clay 35	19118 j	mussive. Ininimi	2		Bentant	E
104	2		]		_	-11			17	Hard, NO obor ; Imonific mett	Pos- 1:	54R5/6V	<b>'</b>	[1]		
104/		İ						······································	***************************************	Root structures	OVM=	0.0 pom@	911	$ \mathbf{r} $		
						12	-			Very pale orange	brok	ensurface	250			
ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT						c a				(ByR 8/2)		V			26	
						13		-	MINISTER STATE OF THE STATE OF	, , ,				17	77	
						14			5	14.0 to 16.0 ft -	Clay	/chyston	effeg	- /	1/ 5/0	wk
IOYR		65cl						21	<del>-</del>	Don't yel bril (10	yR 7/2	)/Mod. ye	1		Cush	W
CL 4/2	Dry	2551	MAS	00	NO	15		95	10	won (10 VR 3/4)-	65%0	lay 35% 5	ilt	13	104	也
100	21:11					-16		18	13	Massile. Nuto	Straw	MANNU (2).	2	当	1/2	
10 YK	51 ight					-16			MARKET N. P. S. S.	1: at brown apott	tesi/ ê	7/4K 7/6 ) 1 0	100		/7	
5/4	motst					17				Structures. Pale No Staining. OVA	0501.	NO ppm &	16			
**************************************						ŀ			· · · · · · · · · · · · · · · · · ·			/ '	/ *	1/2/		
10 4/2						18					Silt le	us top3"		归	19	
		1 1				-,a	4.1.24							/注		
54 BYR	,	Soci				- 17	14:0	<u></u>	3	W/ Iran mottles	ixcre	easing a	Leure.	洒	[ ]	
1914 5/6	Moist	4931	MASS	0.0	No	201	X)	95	2	Moist No odor; No Stail	Shinne	Micheeou	احدا		1. J	
								ja_	8	NO 0001 ; NO 2100.	000	ppm(a) 21			1	
						Δ						/ /				

LOCATION MAP	OLSSON	4690 Table Mountain Dr. Golden, CO 80403 T. 303.237.2072 F. 303	
	TEST HOLE/ WELL I Test/Well Number: MH-5	LOG Page	2 of 2 9,6 Jask 4
	Date: 06/21/12	Project Number: // 4/1	-2359
	Logged By: James thx Drilling Method: CNE 15/HSA	Drilled By: Site Selve Sampling Method: Spli	
Gravel Pack: 10-20 Silica Su	OVM 580 B Seal: Bentonite	Hole Dia.: 8,25"	F. L. Meter:
Casing Type: Schedule 40 PV Screen Type: Schedule 90 PVC Slot:	Diameter: 2" Length:	DTP: Well Depth:	DTW: Total Depth:
		<u> </u>	WELL
Soil/Rock Type Color Moisture Content % Fines Structure Vapor	Sample # Depth Depth Recovery Resistence	Y/REMARKS	COMPLETION
CL 104R Moist MASS 0.0 N	21 22 23 23.0 to 24.5 Cl 24 100 5 light lin (5 4R 5/6 25 No odor; No Sta micaceous 26 27		0.110 Stot Screen
GM loyR Moist Mass 0.0 Mo	31 Moist to dry, Arkosic OVM=	or prince soft	N. 100 100 100 100 100 100 100 100 100 10
BM 54R Dry MASO.0 No	33 60 18 moderate orange for 18 arkosic, moist to 22 Arkosic, moist to 22 (light lyn 54R = 35 stontified, 0 vn 36	fink (54R8/4)  dry, Iron Staining  le y experiantly  sand-gravel  1=0.0 ppn@34'	Thurst of the section
54 wet MASS 0,0 NT	38.0 to 40.0 ft,	Band & gravel usen ing downwood inturated sinong . I tolo of the	Berguy Berguy

LOCATION MAP HOY 6 4690 Table Mountain Drive #200 ALL State The Property of the Party of the P O MH-C OLSSON Golden, CO 80403 T. 303.237.2072 F. 303.237.2659 Storm Down ! Sound Sound TEST HOLE/ WELL LOG Page / of 🛭 Test/Well Number: MH-6 Project: Hartwig U.S.6 valliant Date: 06/22/12 Project Number 1/4/1-2359 Drilled By: Site Services Logged By: James Hix Drilling Method: CME 75/HSA Sampling Method: Splitsgoon
Grout: Sakkete Elevation: Detector: OVM 580B Seal: Bentonite
Gravel Pack: 10-20 Silica Sand (39 ft to 22 ft)

Coming Through the seal of the Hole Dia.: 8,25° F. L. Meter: Diameter: Length: 24 ft DTP: ND Casing Type: Schedule 40 PVC DTW: 33 Ft 211 Screen Type: Sch 40 NC Slot: ().010 Length: 15 ft Well Depth: 39ft Diameter: Total Depth: 40 F Penetration Resistence Soil/Rock Type WELL. Moisture Content Sample Recovery LITHOLOGY/REMARKS COMPLETION Vapor Color Depth 08:30 CAP Grass, rock, glass, metal weeds debtis, trash-bare soil SALD 3 BM 4.0 to 6.0 ft: clay/sily day (C1) 104R Dry MASS sity layer at top, dry 60% clay, massive, Davk yellowbra (104 1/2) 60 NO % No oder: No staining 00 9.0 to 11.0 ft clay/sitty (lay (a) mod yellorn (10 yrs/4) w/ white and light brown motted (5 yrs/6) MASSIVE, hard, dry.
No odor; No Staining IOYR Ċt GOCI MASS 3 5/4 405 NO 90 10 % 0.0 OVM = 8.0 ppm@ 11 ft Blank 13 14.0 to 16.0 ft Sandy Gravelly Clay, upper 3" Clay, 29" Hard wyk 60 clayer sit (4") mod yellow clayer sit (4") brown (10485/4) Dry massive, imonitic mottles NOV odor; No Staining OVM = 0.0 ppm@ 16 ft 5/4 15 MAS: No 16 SIV 0:0 17 18 (CL) Lower 6" Silty Sand (SM) Limonitis mottles No odor OVM = O-DPM@ZI' No Staining 19 405 0 MISS 20 No Staining Sightly moist, Plastic

CATION	MAP							(	<b>Σ</b> Λ	OLSSON	Golden	n, CO 80403		
								Test/	Well N		_			
								Date:	0	6/22/12	Projec	t Number: AVI	2359	
								Logg Drilli	ed By: ng Me	thod:	Sampl	ing Method: Set	rices	
			]	Detect	tor: 🕖	JM.S	<b>808</b>	Seal:				Grout: Sale	e te	
ing Ty	pe:											DTP:	DTW:	
een Ty	pe:	i -		Sl	ot:	<u> </u>	<u></u>	Di				Well Depth:	Total Depth:	
Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOG	GY/REMA	ARKS	WELL COMPLETION	i 
548	Dry		Mass	0.0	20 -	21 22 23 24 25 26 27 28 29 30 31 32 33		90 %	12 12 15 22 10 14 24 24 26	23.0 to 25.0 ft  light brown (54R  Pink (54R8/4), Ar  Dry, massive.  OVAL = 0.0 pp.  28.0 to 30.0 ft s  light brown to such. or  POOTLY Sorted, M.  No staining.  OVM = 0.0 pp.  34.0 to 35.5 ft  Well Sorted 2" to  Silty Sandy or  Arkosic, Satural  No odor; No Si  OVM = 0.0 pp.	silty sa range asser me licke wel voun ted, m tunin	Sand Otof (SM) (5485/6) assive		20 010 to 010
	vation vel Paing Ty een Ty  544  544  544  544	54R Dry 54R 8/4 Dry 8/4	vation: vel Pack: ing Type: en Type:  Volor  Syk Dry  Syk B/4  Syk	vation: vel Pack: ing Type: en Type:  A Coloo  A Woistna A Countent  Syll Dry  Syll By4  Syll Dry  Mass	vation: vel Pack: ing Type: een Type: SI  Solution: Wolvering Type: SI  Solution: SI  SI  Solution: SI  SI  Solution: SI  SI  Solution: SI  SI  Solution: SI  SI  SI  SI  SI  SI  SI  SI  SI  SI	vation:  vel Pack: ing Type: een Type: Slot:  Syk Dry Mass  Syk B/4  Dry Mass  No  Syk B/4  No	Valion: Vel Pack: ing Type: ven Type: Slot:  Vel Pack: ing Type: ven Type: Slot:  Vel Pack: ing Type: ven Type: Slot:  Vel Pack: ing Type: ven Type: Ven Type: ven Typ	Detector:	Test/   Date:   Logg   Drilling   Logg	Test/Well N   Date:   Old   Diameter:   Old	TEST HOLE   WELL	TEST HOLE/WELL LOG  Test/Well Number: Myl-6 Project Date: 0/6/22/12 Project Logged By: Javines Hix Dallet Drilling Method:  vel Pack: ing Type: Diameter: Length:  Di	TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TEST HOLE WELL LOG  TO JAM'S HIM DIVING MINING AND THE WELL  TO LOGGED BY: JAM'S HIM DIVING MINING AND THE WELL  TO DETECT AND SOLOS  Sampling Method: SPI  GOOD Sampling Method: SPI  TO DIAMETER: Length: Well Depth:  DIP:  TEST HOLE WELL LOG  TO DETECT AND SOLOS  TO DIAMETER: Length: Well Depth:  TO DIAMETER: Length: Well Depth:  TO DIAMETER: Length: Well Depth:  TO JAM'S	TEST HOLE WELL LOG  TESTWORK Mamber Mith-6  Date: D6/22/12  Project Manther AV 23-57  Logged By: Darn'es Hix Drilled By: Site Section  Well Pack:  Detector NIM SBNB Seal:  Well Pack:  Distribution:  Well Pack:  Distribution:  Well Pack:  Distribution:  Well Pack:  Distribution:  Well Pack:  Distribution:  Well Pack:  Distribution:  Detector NIM SBNB Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Distribution:  Detector NIM Sandy Seal:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:  Distribution:

Elevation: Gravel Pack Casing Type Screen Type	: 10-2 :: Scho	dul	Detection	tor: U		N 8015	Date: Logge Drilli Seal: 17' Dia	Well N Object By:	2" Length:	Golder T. 303 LOG Project Project Drilled Sampli	Page t: Hartwig, U- t Number: OA1 By: Site Ser ing Method: Splic Grout: Sokyet Hole Dia.: 8,25 DTP: ND	1.237.2659 1 of 2 5.6 Task4 1-2359 Vices 150001
Soil/Rock Type Color	Moisture Content % Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOG	GY/REMA	RKS	WELL COMPLETION
CL 1048 - 1048 - 5/4 To	555 450	MASS	0.0		0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 10 17		90 % 20 % coubic	5 8 10 10 14 7 14 15 5 5 6 11	4.0 to 6.0 ft (CL) Pale yellow (10 yr 9/2), Dry 2: It, massive, Staining, ONN  9.0 to 11.0 ft (CL) Mod. yel be massive, No achard, limonition of the D.O ppn  14.0 to 16.0 ft (Clay, Dry, Mo 60% lian, 30% sin Roor Fectivery. Commerced. No loods  ONM = 0.0 ppn  ONM = 0.0 ppn	Clay, 60°, No O	Sitty Clay brown, Hard 6 Clay 40% dos; No c ppm@6  Sitty Clay NSTAINING Hing & yR The Hing & yR The 1 Sainly Hing & yR The 1 Sainly Hing & yR The 1 Sainly 1 Sorry (10 yR She) 1 Sitty Sainly 1 Sorry (10 yR She) 1 Sitty Sainly 1 Sorry 1 Sainly 1 Sainly 1 Sainly 1 Stanning	
CL moist	(S) A (S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	MASS	0.0	No	18-	У) 11:5	90	3 + 5 8	19.0 to 21.0 ft mod. yellow brow moist Massiver wet No odor; Sandy Clay - C OVM = 0.0 pp	75 ch.	oyr 5/4) teining 1 Sand (SC)	Corean O.010 Shot

LOC	ATION	MAP							(	<b>X</b>	OLS	'COI					ountain Dr	rive #	‡200	
										ノ \	ASS	O CIA	TES			n, CO 80 .237.207		3.23	7.2659	
									Test/	Well N	TEST		E/WE			t: 11 &	Pag		of 2	41
									Date:	06	1221	12			Projec	t Numbe	r: A.4 -	23	59	
									Drilli	ng Me	Jay thod: C	ME7	5/HS	A	Sampl	ing Meth	ite Sel	14	shoon	)
	vation: vel Pa	ck: 10	-20				IMSB	06	Seal:	Bei	doni	4e				Grout:		re	L. Meter:	
Casi	ng Ty	pe: 40	he	كساو	40	PVC				meter: ameter			Lengt		oft	DTP:	1D pth: 29f	DT	W: N	12 F+
	<u></u>		<u> </u>		0.51							····-	Long	, tiii,	UFI		215	10		·
Soil/Rock Type	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample	Penetration Resistence			LITHO	LOG	Y/REMA	ARKS			WELL COMPLET	
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		V					22		***************************************											10-20 551111 55008
ē.	1						23	**************************************		17	23.6	) to	25.0	1	- cl	OUA /5	Ity Clas	4		0,010
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condensation and a second	(zyr	DOS	305	JA GOV	1.0		25		Cp	10	hare	1/3/4	girly	Plac	stic	,70%	clay 0			
And has been selected as the	S/G Mottle	2					26			ear tol to a	No	odo	7 1/0	Jo :	Stair	ling	lity Clau limonita Dry Clay			
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							27						20 -	0.						]
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20	8/1	THY	500	MASS	D.O		29		100	50/	Poor	ly s	otte	1 6	rela	ngul	u	!	D=29	CAP
OC	54R	-	305				- 30				50%	Clau	/pini 30	% S	and	, DM Mass	Je.		(	
	8/4						31				No (	Store	No.	Słe	www	2				=
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1411	1111					- P		- // 1			ASSOCIATES	T. 303.	237.2072	F. 303	.237.26	59		
-	IM (	MITT	111	11/11	1111	6111		-11		- H	TEST HOLE/ WELL	LOG		Page	of	ನಿ		
		•			0	t-B					umber: MH-8	Project	Hartwig	* U.S	1.6 T	ásK	4	
					MI	4-0		- 1	Date:	00/	James Hix	Project	Number:	h1-	<u> 2359</u>			
			<del>W</del>	6	·			N	Drilli	ng Me	thod: CME 75/HSA	Sampli	By: Site ng Method:	20 C	1000	500		
	ation	:					M58	OB			mite		Grout: So	Kret	e e	211		
Grav	el Pa	ck: 10	- 3C	1531	رص	Sanc	7						Hole Dia.:	.25	F. L. M			
		/pe: <b>Sc</b> /pe: <b>Sc</b>						-		meter:		10	Well Depth:		DTW:		.5'	
SCIC		pe. Sc	W40	<u> </u>		101. 01	010		Di	ameter	Length:	10	wen Depun:	24.	Total De	epth:	<u>-</u>	
상		5 7		2		50	#		2	Penetration Resistence						VELL	İ	
Soil/Rock Type	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	etral sister	LITHOLOG	Y/REMA	RKS		COM	PLETIC	ON	
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13.															7			4
											-						BLANK	
							3			···) — ««««««««««««««««««»»	9.						CASI	N.
						.	-4	_		2	4.0 to 6.0 feet Clay (CL), D (10 yr 1/2) limon Dry to slightly 1 No odor; No s OVM = 0.0 pt	Clas	1-Siltu		7	X		
CL	love	Dry	600 353 55	MASS		No			05	4	Clay (CL), D	ark y	Ellowbre	MM	7			
	4/2	51-	300		0.0	1.	5	0.04	95	5	(104R4/2) limon	itich	nottks(5)	R5/6)			-	
	1 60	MOIS	# "	1	0.0		6			<u> </u>	Dry to Slightly	noist,	massiv	e 1		17	sent	
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C.1		}					-9			-	9.0 to 11.0 fa C upper 1.5 feet -	lay-&	ilty clay	*	17			
ال							'			2	upper 1.5 feet-	pollo	M 6.5 F	4	13			
H	104R	Ty		MAS		No	10		100	4	Sitt/ silty sand	(SM)	, Dry,	raid	-	2		
SM	14	4		l	0,0	"	[		1/0	6	sit/silty sand massive. No	0001	, NO 3400	China		1	ent.	
					0,0	•	- 11				OVM = 0.0 pp	mo	HE			E C	runbl	وير
<u> </u>							12				*			-	- 3	图		
																	10-20 SLE 10	A
							13										SAND	)
						-	1992	.=.		OT 1011043	14 - 4- 11 0 14	- 01	م بالدم	ا ا				
	WYR						714			3	14.0 to 16.0 ft	Clay	->1179 C	lay			0.010	)
CL	3/	Dry				No	15		100	4	(cl) mod yel-br	1 (18 Y	K/4) has	5			SCREET	H
- <del>51</del>	3/4	Sl.	,	MASS	60				%	8	(CL) mod yel-br Dry to sughtly m limbritic mortles	(540	5/4)	İ				
	54K 5/6)	PULIST					-16				in oder No St	4 WW	Q-		=			
	5/4)						17				No odor, No St DVM = 0.0	em @	QCoft					
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11	SYR						<b>.</b>				19.0 to 20.0 f	+ 11.	. 1					
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(4V)	/4	wer		MASS	-	NO	20	X	18/0	3	2" sitty sand (	M 100	19.5		$ \cdot  \equiv$			
2.1					0.0		~	<u> </u>	10	4	Clay mod, ye No boor, N	2 Xth	200					
		!					_31 <u> </u>				NVM DO M	.000	1/		P 4 , 1	1 . 4		
											0VM= 0,0 ppn	$n \subset a$	· L					

Sq.

LOCATION MAP	Golden, CO 80	untain Drive #200 403 2 F. 303.237.2659
	Date: 06/22/12 Project Number  Logged By: Tames Hix Drilled By: Si	te Services
Elevation: Detector: ONM  Gravel Pack: 10-70 Silica Sand  Casing Type: Schedule 40 fVC	Bob Seal: Bentonite Grout: Hole Dia.  Diameter: 2" Length: DTP:	Saktete Saktete E.S. 25 F. L. Meter: DTW:
Soil/Rock Type Color Color Moisture Content Wapor Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining Staining	Diameter: 24 Length: Well Dep	th: タゴ Total Depth: WELL COMPLETION
OST 10YA SAT MASS NO SA	33.0 to 25.0 ft sity clay  95 3 sity sand at 33.5 ft 4" th  50 7 No odor; No Stamma,  04 = 0.0 ppm@ 29'	South South South Cap TD = 24 ft

LO	CATION	N MAP		-	Day	s Ini	1 Sign	1				4690 T	able Mountain Dr	ive #200	7		
-		·	O f			2 _				$\mathcal{N}$	OLSSON	Golden	, CO 80403				
A	(()	1111	16	1111	[[[	(MG)I	Slop	el			ASSOCIATES		237.2072 F. 303	3.237.2659			
SS SS	-				14-9		~		Took	007_11 N	TEST HOLE/ WELL:		Page		$\exists$		
				ľ	, Maria						25/12	Project	Hartwig Ur. Number: All	7-10 (125K.4 - 2259	$\dashv$		
$\prod$									Logg	Logged By: Tames Hix Drilled By: Ste Services							
Fi	vation	Hw.	y 4	0	Datas	440/	niRe				thod: CME15/HSA	Sampli	ng Method: 504	17			
			-20						olZ'	1005)	itorite		Grout: Salcre Hole Dia.: 8.25	F. L. Meter:	$\dashv$		
Ca	sing Ty	/pe: <i>Se</i>	hes	July	= 40	RK			Dia	meter:	2" Length:	14 ft±	DTP: ND	DTW: LAFT	1		
Sci	een Ty	pe: 5	ch	40	SI	ot: C	.010	2	Di	ameter	Length:	10 ft	Well Depth: 24	Total Depth: 24 f	7		
Soil/Rock	Lype	Moisture	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOG	GY/REMAI	RKS	WELL			
							0		-	4 )   Semicon (10 (10 (10 (10 (10 (10 (10 (10 (10 (10	Grass, pares	) يو		COVER	المرابع		
							2										
		24.1					3	****		200 PP PT PT PT 100 000 PP 000 000				1 1 3	A 031		
CL	- WYR	Moist		MASS	,	NO -	<del>- 1</del> 4		95	<u>ನ</u> 3	4.0 to 6.0 ft Cla mod. yellowishly moist, 60% clay No odor & no. 717 1.3 @ 6	rown (	ty clay (CL)				
a decreta a deca decadordoses	5/4		105			,		***************************************	1/4	5_	No odoc & no	stain	5011 , Massive TuQ				
SA	1		1		1.3	-	-6				710 1.3 @ 6	1t	0				
	_						7				Pen	0 .					
***************************************								******		#*#*##################################							
							8				PID 0.3_1PM(	0921	2				
a 0	4				0,3		- 1				910 0.3 ppm ( 9.0 to 11.0 ft clo Gravel (SC-GC) 1	v . axeu . s	soud to Clave				
50	COYR	Moist	-	MASS					£_ &	2	Gravel (SC-GC) n	3" Hi	ch mad yeld				
==	5/4	Moist		כג אוין <u>.</u>		No	10		100	d	111 (104K-14) MG	715T,170	assive -				
CL	-				1.5	-	-11			4	Clay (CL) Seave as No odor; No Stai	never	0000				
******							12				100 0000 , 100	0	@118t.		100		
	_						12	·»···						· Z · B	الليال سالا		
							13	_						国图到"			
*							- j4				14.0 to 16.0 Px	OF HOLD	land tilk	13: 0.0	010		
-jn4			600				ŀ			2 4 5 7	14.0 to 16.0 ft	ringers.	Clauses at		PT		
ct	loya	Maist	335	MAST		No	15	(X)	100	5	and Silfy Sand Str 15 ft & lle ft 2 to	300 7	wik.	- Cu	zer		
SC	5/4		7		21		16		19	7	No odor; No star	ning	prastic Clay	10	-20 -1CA		
<u> </u>			to		≪ ∞i		-	orminorimisma.			OVM 2.1 ppm	2 /6 x	of	5 K	ND.		
	1						17				,, –	- 0					
	-	V					18										
***************************************	-	-					-				19.0 to 21.0 ft;	C11.01	au (cl)				
	LOYR		650		1.2	, .,	19			3 5	mod. yellow brown	SIFU CL	14) Saturated				
CL	5/1	SAT	3551	MASS		No	20	(	100/	5	(0) 74 ((AN) 2 10 2 11/ 1	グレベンン・レ	e, plasticy	: =::			
***************************************	_ / 4				1.6		ا رد		No.	8	NO Eder No Sta	ming	1ff nac				
						Pag	-001				,		0		4		

LOC	ATION	MAP		_						<b>~</b>			4690	Fable Mountain Dr	rive #200	7
										ハ	OLS	SON		n, CO 80403 3.237.2072 F. 30	3.237.2659	
											TEST	HOLE/ WEL	LLOG	Page	e 2 of 2	-
									Test/	Well N		MH-9		t: Harwiez	0127	-
									Date	06/	25/12	-		t Number: A	2359	7
									Logg	ed By:	Jan	15 Hix	Drille	d By: Site So	et vices	
							-		Drilli	ng Me	thod:Ct	15/HSA	Sampl	ing Method: 588	Macdel	
	ation:			(2.02	Detec	tor: M	mor	200	Seal:	Ben	toward	2		Grout: Sakk		
Cosi	el Pa	ck: (C	r. C	<u>. (a</u>	Pale	<u> </u>	me.	200		meter:	28	T amosth		Hole Dia.: 8.29		4
		pe: 会			12	ot: ť	010.				: 20	Length Lengt		Well Depth: 24	DTW:	-
DOTE		po		70		01. 0		1			. ~	Longo	u.	wen bepan 24	Total Depth: 24	
Soil/Rock Type	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample	Penetration Resistence		LITHOL	OGY/REMA	ARKS	WELL COMPLETION	
					<u> </u>		21		1						ISIH.3	-
	]						21									4.1
							22									,0(U \$cre
01	10 YR	1.5					- 23	<u> </u>	1	3	23.0	1025,0	Clay (	CL) Plastic		
CL	10 yr	781		MAS!	1.7		١.,		100	5	mad.	yellow b	rown (	10 4R5/11)		CAP
						No	24	$\bigcirc$	0/G	10	Satur	ated ->	dry,	(CL) plastic (10 YR5/4) massive ning 24 ft	[. <u>M</u> *.]	
56		Dry					25		1	<del></del>	NOO	gor! no ?	Stadthi	ni ng	TD=24 ft	
***************************************		- 0					20	R-N100-R-10-10-10-10			PID	= 1.7 PE	m@ 2	24 CF	TD=24 ft bgs	
														. ( )		
											TD	= 24 ft				
<u> </u>																
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(A1411H1A444411H1)																
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LOCATION MAP	M ol scon	4690 Table Mountain Drive #200					
	O\OLSSON ASSOCIATES	Golden, CO 80403 T. 303.237.2072 F. 303.237.2659					
	TEST HOLE/ WELL 1	LOG Page 1 of 2					
	Test/Well Number: MH-10	Project: Haviwig- U.S. 6 Task 4					
	Date: 06/25/2 Project Number: 49/ 2359  Logged By: James Hix Drilled By: Site Services						
	Drilling Method: CME 75/ HSA	Sampling Method: Selitspoon					
	Seal: Berdonite	Grout: Sakrete Hole Dia.: 8, 25 F. L. Meter:					
Gravel Pack: 10-20 Silico Sand (3 Casing Type: Schedule 40 PIC	Diameter: 24 Length:						
Screen Type: Sch40 RIC Slot: 0.010	Diameter: 2" Length:						
Soil/Rock Type Color Moisture Content % Fines Structure Vapor Staining Sample #	Sample Recovery Penetration Resistence	Y/REMARKS WELL COMPLETION					
	2	Cover					
	Grass, Soil	ECAP GRO					
		<u> </u>					
	3.7 7 7 7 7						
	Marian in the state of the stat						
<u> </u>	13 40 to 6.0 Clarge	y Sand & Gravel					
GE 2/2 Dry SBX 0.3 NO 5	90 14 (GC), Dusky yel	y Sand & Gravel  10w brn (10 y R 2/2)  n blocky, No odor  ncrete debris uppor  val.  n@ 4 ft					
72 0 0.3 20 3	% 9 Dry, Subangula	a blocky. No oder					
	No Staining, Cor	icrete debrés appr					
	OID = 0.3 con	ne eft					
		INNI					
1048 Dry 355; Ele 0.7	5 9.0 to 11.0.ft = 5 yellow brown (	ty clay mod					
(L) 3/4 0 55 7 1 NO	6 gellen 35% S	1+ 5% V. Fre Fund					
10	85 8 66% Cay 53 16 x	It 5% V. Fine Sund whangular blocky					
	10 No odor, No 5	nouff.					
	PK						
13	THE RESIDENCE OF THE PARTY OF T						
COYP Most 550 Mass 14	3 14.0 to 16.0 %	Hy Clay Mod					
	3 yel-brn (10 yrs	4 moist slightly 4, 45 % Silt, Massive paining					
	90 7 Mois 135% Ca	Paining /					
0.4 -16	OVM = 0.4	pencil ft					
	The second of th	"					
130 14002***********************************	Contraction and the second contraction of th						
19							
SM Syl stalt 505 MASS 0 2 - 19	19.0 to 21.0 ft	upper 1.5++ is					
Mx10'  53	100 4 Clayer Silt (SM	art sixultymoist					
	% & Clay plasto, ve	upper 1.5ft is 1 lower 0.5ft is ard, Swillymoist and, Swillymoist uning					
CU 21	AND OUR NOOF						
	OVM = 012 ppm	(W 21 +T					

LOCATION MAP	OLSSON	4690 Table Mountain Drive #200 Golden, CO 80403 T. 303.237.2072 F. 303.237.2659
	TEST HOLE/WELL Test/Well Number: M41-10 Date: 66/25/12 Logged By: James Drilling Method: CME75/USA	Project: Hartwis U.S. 6 Tasky Project Number: ALV 2359 Drilled By: Site Services
Elevation: Detector:	Seal:	Grout: Sakrete
Gravel Pack:	B:	Hole Dia.: 8.24" F. L. Meter:
Casing Type: Schedule 40 PVC Screen Type: Shedule 40 PVCSlot: 0.010	Diameter: 2" Length: Length:	
¥   0   0   1	u e e	GY/REMARKS WELL COMPLETION
Soil/Roc Type Color Moisture Content % Fines Structure Vapor Staining Staining	Sample Recover Resistent R	Bert
CL 10YR Moist 600 MASS 0.4 23 No 24 25 26 27	10 days   10 day	lay/si(ty clay (CL) 10 PR 5/4) moist Ht massive staining m@ 25 ft
CL 104R Very 6001 5/4 Norst 4051 MASS 0, 2 No 29 80 31 32 CL 104R Wet 4001 MASS CL 104R Wet 4001 MASS 1, 2 34 8 3	00 M = 0,2 ppn	Clay (CL) Mod.  ) very moist,  It massive.  aoning  n@ 29 ft.
CL 5/4 Wet 4000 MASS 1.2 - 34 X 35 35 37 38 39 40	34.0 +0 36.0 ct mod yel-brn to y upper 6" wet, 4 50% sand 40% c Massive No od TD= 34 ft 0 B.O.B = 36.0 (5	Layer Sand (SC) Dalk yel-brn to Saturated Lay 10% Staining ort No Staining ort No Staining ort (SC) Splitspoon)

Days Inn  Days Inn  Days Inn  Days Inn  Detector: Mind Rae  Gravel Pack: 10-20 Silica Sand  Casing Type: Sch do Slot: 0.010						7	Test/\\Date: Logge Drillin Seal:	TEST HOLE/ WELL LOG Page Test/Well Number: MH-   Project: Hat wice Will Date: 06/25/12 Project Number: AH- 2 Logged By: Tames Hix Drilled By: Site Service Grout: Sampling Method: Solid Seal: Bentonite Grout: Hole Dia.: 8.25 Diameter: 2" Length: 24 DTP: June 25 Diameter: 2" Length: 15 Well Depth: 39					L of S,6 359 F.L.M DTW:	659  A  Meter:	391		
Soil/Rock Type	Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOG	GY/REMA	RKS		CON	WELL (PLET)	ON
							0 1 2 3				Asphalt 2.5" A						GROU
CL	104R 5/4	Moist	5501 458	MASS	1.7	No	4 5 V 7 8		75 %	2 3 4 4	4.0 to 6.0 ft ( (CL) mod. yellon horst, 55% clay No oder, No St OVM = 1.7 ppn	Lay/100 15/100 15/100 6	silty clay wn loy silt, mo g ft	\$4) Sive		11111111111	
-CL	loyr 5/t	Moist	55Cl 455;	Mass	177	No	- 9 10 - 11 12		60%	3 3 5	9.0 to 11.0 ft c born (10 yr 5/4), w massive, NO odor, NO S. OVM = 177 ppmc	tainin	9	yel	1111111111111		
	104R 5/1 104R 104R 2/2	Moist		MASS Weak Platy	204	No	13 - 14 15 - 16 17		60	3 5 9	14.0 to 14.0 ft  Bottom 4" of sec (SM) weak plat  Park yellow bon yerow on (10 yer  OVM = 204 ppr	oon 5	Ity San	4		1/11/11/11/1///	
11	54 5/2 54 3/2	proist		MASS	1750	Yes	= i9 20 = <del>21</del>	Wis	95	2 5 4 4	19.0 to 21.0 ft state of any gray (54 3/2) sho State of observed detected, OVM-	(545) ed. A	n odor wi	ve as	+	77711111	

LOCATION MAP							O\OLSSON				4690 Table Mountain Drive #200 Golden, CO 80403 T. 303.237.2072 F. 303.237.2659			
														2 of 2
								Test/	Well N	Jumber: MH-11 25/12	Project	t Number:		2359
										James Hix		By: Site	Ser	Vicoe
								Drilli	015000					
Elevation Gravel P				Detect	tor:			Seal:		F. L. Meter:				
Casing T							_	Dia	meter:	Length:		Hole Dia.:		DTW:
Screen T				Sl	ot:				ameter			Well Depth:		Total Depth:
Soil/Rock Type Color	Moisture Content	% Fines	Structure	Vapor	Staining	Sample #	Depth	Sample Recovery	Sample Recovery Penetration Resistence Resistence				WELL COMPLETION	
CL 54 1/4 24) 54 5/2	Moist			1045	yes	21 22 23 24 25 26 27		45 %	2 4 5	23.0 to 25.0 f (CL) mod. olive' light olive, gray ( massive, silt ler thick) odor dete is present, PID	+ Clo bin (: 5 y 5/ ns@a cited = 104	14-51 ty 544/4) to 52) mois 5.2ft (1. 5 staining 5 ppm(	Classification of the control of the	O.OD
SC 54	JUNA		Mass	>300	yes	= 28 29 - 30 - 31 - 32	12:11	go lo		22.0 to 30.5 cl Gravel, Olivego wer, odor detec fresent. OVM = over Range - o	2300 2300 200 &	y3/2 Mas Staining Oppmes Staining	islue is 29.5	
CC Joy	Rwet		<sub>J</sub> MASS	11.0		33 34 35 36 -37				32.0 to 34.0 ft yellowish brown wet@ 32.5 ft, No odor; No 5t DVM = 11 ptn@ 37.0 to 39.0 ft mod. yellow br				
	Dry			11.8	90	38 39 40	W.		6	37.0 to 39.0 ft mod. yollow br to dry at botto massive. No odor; Nos OVM = 118 ppn TD = 39 ft	mofi itaini	ng.		BOB 39 FT

# ATTACHMENT B SOIL SAMPLE ANALYTICAL RESULTS



FG-Jul-2012

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

Tel: (303) 237-3139 Fax: (303) 374-3139

Re: US Hwy 6 & Fed Blvd Bridges Task 4 Work Order: 1206925

Dear James.

ALS Environmental received 19 samples on 21-Jun-2012 through 23-Jun-2012 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 42.

atricia L. Lynch

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Kelsey N. Brown

Patricia L. Lynch Project Manager TNI LABORATORY

Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Cam pbell Brothers Limited Company

Enuironmental 📜

www.alsglobal.com

**Client:** Olsson Associates

Project: US Hwy 6 & Fed Blvd Bridges Task 4 Worl

Work Order: 1206925

## **Work Order Sample Summary**

Lab Samp II	Client Sample ID	<u>Matrix</u>	Tag Number	Collection Date	Date Received	Hold
1206925-01	MH - 1 @ 20 FT	Soil		6/20/2012 09:30	6/21/2012 09:00	
1206925-02	MH -1 @ 34 FT	Soil		6/20/2012 10:00	6/21/2012 09:00	
1206925-03	MH -2 @ 20 FT	Soil		6/20/2012 10:00	6/21/2012 09:00	
1206925-04	MH -2 @ 30 FT	Soil		6/20/2012 13:15	6/21/2012 09:00	
1206925-05	MH -12 @ 16 FT	Soil		6/20/2012 15:30	6/21/2012 09:00	
1206925-06	MH -12 @ 23 FT	Soil		6/20/2012 15:45	6/21/2012 09:00	
1206925-07	Trip Blank 052212-34	Water		6/20/2012	6/21/2012 09:00	
1206925-08	MH - 3 @ 20 FT	Soil		6/21/2012 09:20	6/22/2012 09:20	
1206925-09	MH - 3 @ 24 FT	Soil		6/21/2012 09:30	6/22/2012 09:20	
1206925-10	MH - 4 @ 15 FT	Soil		6/21/2012 11:35	6/22/2012 09:20	
1206925-11	MH - 4 @ 20 FT	Soil		6/21/2012 11:55	6/22/2012 09:20	
1206925-12	MH - 5 @ 20 FT	Soil		6/21/2012 14:05	6/22/2012 09:20	
1206925-13	MH - 5 @ 30 FT	Soil		6/21/2012 14:30	6/22/2012 09:20	
1206925-14	Trip Blank 052212-36	Water			6/22/2012 09:20	
1206925-15	MH-6 @ 35FT	Soil		6/22/2012 09:30	6/23/2012 09:25	
1206925-16	MH-7 @20FT	Soil		6/22/2012 11:55	6/23/2012 09:25	
1206925-17	MH-7 @29FT	Soil		6/22/2012 12:25	6/23/2012 09:25	
1206925-18	MH-8 @20FT	Soil		6/22/2012 14:30	6/23/2012 09:25	
1206925-19	MH-8 @24FT	Soil		6/22/2012 14:44	6/23/2012 09:25	

**Client:** Olsson Associates

Project: US Hwy 6 & Fed Blvd Bridges Task 4 Case Narrative

**Work Order:** 1206925

Batch 62276, Metals: MS/MSD recoveries for barium, iron, manganese and zinc and duplicate RPD for manganese are outside the control limits in sample MH-1 @20 FT due to the sample matrix. The MS/MSD results are flagged with E and/or O due to the high concentration in the background sample.

**Client:** Olsson Associates

 Project:
 US Hwy 6 & Fed Blvd Bridges Task 4
 Work Order:
 1206925

 Sample ID:
 MH - 1 @ 20 FT
 Lab ID:
 1206925-01

 Collection Date:
 6/20/2012 09:30 AM
 Matrix:
 SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	2.16		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Barium	134		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Cadmium	0.131	J	0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Chromium	7.71		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Iron	15,700		48.0	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Lead	8.57		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Manganese	439		4.80	mg/Kg	10	7/1/2012	7/3/2012 02:28 PM
Molybdenum	0.235	J	0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Selenium	0.528		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Silver	U		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Uranium	0.884		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
Zinc	46.1		0.480	mg/Kg	1	7/1/2012	7/2/2012 04:25 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/22/2012 06:17 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/22/2012 06:17 PM
Toluene	U		5.0	μg/Kg	1		6/22/2012 06:17 PM
Xylenes, Total	U		15	μg/Kg	1		6/22/2012 06:17 PM
Surr: 1,2-Dichloroethane-d4	78.7		70-128	%REC	1		6/22/2012 06:17 PM
Surr: 4-Bromofluorobenzene	94.3		73-126	%REC	1		6/22/2012 06:17 PM
Surr: Dibromofluoromethane	94.8		71-128	%REC	1		6/22/2012 06:17 PM
Surr: Toluene-d8	99.9		73-127	%REC	1		6/22/2012 06:17 PM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	26.1		0.0100	wt%	1		6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH - 1 @ 34 FT
 **Lab ID:** 1206925-02

Collection Date: 6/20/2012 10:00 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit U	J <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
METALS			SW6020	)			Analyst: SKS
Arsenic	2.28		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Barium	180		4.57	mg/Kg	10	7/1/2012	7/3/2012 02:43 PM
Cadmium	0.130	J	0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Chromium	10.3		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Iron	16,300		45.7	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Lead	9.04		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Manganese	357		4.57	mg/Kg	10	7/1/2012	7/3/2012 02:43 PM
Molybdenum	0.296	J	0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Selenium	0.805		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Silver	U		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Uranium	1.11		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
Zinc	47.8		0.457	mg/Kg	1	7/1/2012	7/2/2012 04:46 PM
VOLATILES			SW8260	)			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/22/2012 06:40 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/22/2012 06:40 PM
Toluene	U		5.0	μg/Kg	1		6/22/2012 06:40 PM
Xylenes, Total	U		15	μg/Kg	1		6/22/2012 06:40 PM
Surr: 1,2-Dichloroethane-d4	78.4		70-128	%REC	1		6/22/2012 06:40 PM
Surr: 4-Bromofluorobenzene	94.4		73-126	%REC	1		6/22/2012 06:40 PM
Surr: Dibromofluoromethane	91.1		71-128	%REC	1		6/22/2012 06:40 PM
Surr: Toluene-d8	98.8		73-127	%REC	1		6/22/2012 06:40 PM
MOISTURE Percent Moisture	17.5		SW3550 0.0100		1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH -2 @ 20 FT
 **Lab ID:** 1206925-03

Collection Date: 6/20/2012 10:00 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	2.03		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Barium	187		4.35	mg/Kg	10	7/1/2012	7/3/2012 02:45 PM
Cadmium	0.120	J	0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Chromium	6.72		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Iron	14,100		43.5	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Lead	7.75		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Manganese	302		4.35	mg/Kg	10	7/1/2012	7/3/2012 02:45 PM
Molybdenum	0.194	J	0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Selenium	0.568		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Silver	0.0726	J	0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Uranium	0.878		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
Zinc	40.4		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:48 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/22/2012 07:04 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/22/2012 07:04 PM
Toluene	U		5.0	μg/Kg	1		6/22/2012 07:04 PM
Xylenes, Total	U		15	μg/Kg	1		6/22/2012 07:04 PM
Surr: 1,2-Dichloroethane-d4	75.4		70-128	%REC	1		6/22/2012 07:04 PM
Surr: 4-Bromofluorobenzene	93.5		73-126	%REC	1		6/22/2012 07:04 PM
Surr: Dibromofluoromethane	94.6		71-128	%REC	1		6/22/2012 07:04 PM
Surr: Toluene-d8	101		73-127	%REC	1		6/22/2012 07:04 PM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	22.7		0.0100	wt%	1		6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH -2 @ 30 FT
 **Lab ID:** 1206925-04

Collection Date: 6/20/2012 01:15 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: SKS
Arsenic	2.28		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Barium	209		4.35	mg/Kg	10	7/1/2012	7/3/2012 02:48 PM
Cadmium	0.139	J	0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Chromium	8.98		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Iron	13,500		43.5	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Lead	8.50		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Manganese	431		4.35	mg/Kg	10	7/1/2012	7/3/2012 02:48 PM
Molybdenum	0.158	J	0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Selenium	0.419	J	0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Silver	U		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Uranium	1.23		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
Zinc	39.0		0.435	mg/Kg	1	7/1/2012	7/2/2012 04:51 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/22/2012 07:27 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/22/2012 07:27 PM
Toluene	U		5.0	μg/Kg	1		6/22/2012 07:27 PM
Xylenes, Total	U		15	μg/Kg	1		6/22/2012 07:27 PM
Surr: 1,2-Dichloroethane-d4	79.7		70-128	%REC	1		6/22/2012 07:27 PM
Surr: 4-Bromofluorobenzene	95.6		73-126	%REC	1		6/22/2012 07:27 PM
Surr: Dibromofluoromethane	95.0		71-128	%REC	1		6/22/2012 07:27 PM
Surr: Toluene-d8	97.7		73-127	%REC	1		6/22/2012 07:27 PM
MOISTURE Percent Moisture	19.6		SW355 0.0100	_	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH -12 @ 16 FT
 **Lab ID:** 1206925-05

Collection Date: 6/20/2012 03:30 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS		SW6020					Analyst: <b>SKS</b>
Arsenic	0.930		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Barium	23.6		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Cadmium	U		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Chromium	1.43		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Iron	2,490		48.4	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Lead	2.19		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Manganese	28.1		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Molybdenum	0.158	J	0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Selenium	0.431	J	0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Silver	U		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Uranium	0.648		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
Zinc	8.03		0.484	mg/Kg	1	7/1/2012	7/2/2012 04:54 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/22/2012 07:50 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/22/2012 07:50 PM
Toluene	U		5.0	μg/Kg	1		6/22/2012 07:50 PM
Xylenes, Total	U		15	μg/Kg	1		6/22/2012 07:50 PM
Surr: 1,2-Dichloroethane-d4	74.3		70-128	%REC	1		6/22/2012 07:50 PM
Surr: 4-Bromofluorobenzene	93.7		73-126	%REC	1		6/22/2012 07:50 PM
Surr: Dibromofluoromethane	93.2		71-128	%REC	1		6/22/2012 07:50 PM
Surr: Toluene-d8	101		73-127	%REC	1		6/22/2012 07:50 PM
MOISTURE Percent Moisture	1.73		SW355 0.0100	_	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH -12 @ 23 FT
 **Lab ID:** 1206925-06

Collection Date: 6/20/2012 03:45 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: SKS
Arsenic	0.841		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Barium	25.0		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Cadmium	U		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Chromium	1.59		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Iron	2,660		44.1	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Lead	1.89		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Manganese	23.4		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Molybdenum	0.161	J	0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Selenium	0.426	J	0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Silver	U		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Uranium	0.591		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
Zinc	7.92		0.441	mg/Kg	1	7/1/2012	7/2/2012 04:56 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/22/2012 08:14 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/22/2012 08:14 PM
Toluene	U		5.0	μg/Kg	1		6/22/2012 08:14 PM
Xylenes, Total	U		15	μg/Kg	1		6/22/2012 08:14 PM
Surr: 1,2-Dichloroethane-d4	79.4		70-128	%REC	1		6/22/2012 08:14 PM
Surr: 4-Bromofluorobenzene	94.8		73-126	%REC	1		6/22/2012 08:14 PM
Surr: Dibromofluoromethane	95.5		71-128	%REC	1		6/22/2012 08:14 PM
Surr: Toluene-d8	98.7		73-127	%REC	1		6/22/2012 08:14 PM
MOISTURE Percent Moisture	7.77		SW355 0.0100	_	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH - 3 @ 20 FT
 **Lab ID:** 1206925-08

Collection Date: 6/21/2012 09:20 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit V	U <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
METALS		SW6020					Analyst: <b>SKS</b>
Arsenic	1.70		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Barium	183		4.50	mg/Kg	10	7/1/2012	7/3/2012 02:51 PM
Cadmium	0.141	J	0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Chromium	8.79		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Iron	14,000		45.0	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Lead	8.89		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Manganese	346		4.50	mg/Kg	10	7/1/2012	7/3/2012 02:51 PM
Molybdenum	U		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Selenium	0.560		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Silver	U		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Uranium	1.03		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
Zinc	43.6		0.450	mg/Kg	1	7/1/2012	7/2/2012 04:59 PM
VOLATILES			SW8260	)			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/25/2012 11:19 AM
Ethylbenzene	U		5.0	μg/Kg	1		6/25/2012 11:19 AM
Toluene	U		5.0	μg/Kg	1		6/25/2012 11:19 AM
Xylenes, Total	U		15	μg/Kg	1		6/25/2012 11:19 AM
Surr: 1,2-Dichloroethane-d4	88. <i>4</i>		70-128	%REC	1		6/25/2012 11:19 AM
Surr: 4-Bromofluorobenzene	95. <i>4</i>		73-126	%REC	1		6/25/2012 11:19 AM
Surr: Dibromofluoromethane	98.3		71-128	%REC	1		6/25/2012 11:19 AM
Surr: Toluene-d8	92.7		73-127	%REC	1		6/25/2012 11:19 AM
MOISTURE Percent Moisture	21.5		SW3550 0.0100		1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH - 3 @ 24 FT
 **Lab ID:** 1206925-09

Collection Date: 6/21/2012 09:30 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	2.23		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Barium	258		4.79	mg/Kg	10	7/1/2012	7/3/2012 02:53 PM
Cadmium	0.273	J	0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Chromium	8.10		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Iron	15,800		47.9	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Lead	8.31		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Manganese	1,720		4.79	mg/Kg	10	7/1/2012	7/3/2012 02:53 PM
Molybdenum	0.587		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Selenium	0.733		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Silver	U		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Uranium	1.03		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
Zinc	46.0		0.479	mg/Kg	1	7/1/2012	7/2/2012 05:01 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/25/2012 11:49 AM
Ethylbenzene	U		5.0	μg/Kg	1		6/25/2012 11:49 AM
Toluene	U		5.0	μg/Kg	1		6/25/2012 11:49 AM
Xylenes, Total	U		15	μg/Kg	1		6/25/2012 11:49 AM
Surr: 1,2-Dichloroethane-d4	94.3		70-128	%REC	1		6/25/2012 11:49 AM
Surr: 4-Bromofluorobenzene	96.4		73-126	%REC	1		6/25/2012 11:49 AM
Surr: Dibromofluoromethane	97.4		71-128	%REC	1		6/25/2012 11:49 AM
Surr: Toluene-d8	96.2		73-127	%REC	1		6/25/2012 11:49 AM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	27.5		0.0100	wt%	1		6/29/2012 08:40 AM

**Client:** Olsson Associates

 Project:
 US Hwy 6 & Fed Blvd Bridges Task 4
 Work Order:
 1206925

 Sample ID:
 MH - 4 @ 15 FT
 Lab ID:
 1206925-10

 Collection Date:
 6/21/2012 11:35 AM
 Matrix:
 SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	1.95		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Barium	168		4.81	mg/Kg	10	7/1/2012	7/3/2012 02:56 PM
Cadmium	0.122	J	0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Chromium	8.38		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Iron	14,400		48.1	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Lead	7.74		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Manganese	511		4.81	mg/Kg	10	7/1/2012	7/3/2012 02:56 PM
Molybdenum	0.187	J	0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Selenium	0.514		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Silver	U		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Uranium	1.03		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
Zinc	41.2		0.481	mg/Kg	1	7/1/2012	7/2/2012 06:21 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/25/2012 01:46 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/25/2012 01:46 PM
Toluene	U		5.0	μg/Kg	1		6/25/2012 01:46 PM
Xylenes, Total	U		15	μg/Kg	1		6/25/2012 01:46 PM
Surr: 1,2-Dichloroethane-d4	92.8		70-128	%REC	1		6/25/2012 01:46 PM
Surr: 4-Bromofluorobenzene	100		73-126	%REC	1		6/25/2012 01:46 PM
Surr: Dibromofluoromethane	95.8		71-128	%REC	1		6/25/2012 01:46 PM
Surr: Toluene-d8	95.5		73-127	%REC	1		6/25/2012 01:46 PM
MOISTURE			SW355	0			Analyst: KAH
Percent Moisture	23.2		0.0100	wt%	1		6/29/2012 08:40 AM

See Qualifiers Page for a list of qualifiers and their explanation.

Note:

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH - 4 @ 20 FT
 **Lab ID:** 1206925-11

Collection Date: 6/21/2012 11:55 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	3.22		0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Barium	286		4.83	mg/Kg	10	7/1/2012	7/3/2012 02:58 PM
Cadmium	0.0962	J	0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Chromium	5.93		0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Iron	14,000		48.3	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Lead	5.73		0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Manganese	373		4.83	mg/Kg	10	7/1/2012	7/3/2012 02:58 PM
Molybdenum	0.236	J	0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Selenium	0.409	J	0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Silver	U		0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Uranium	0.904		0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
Zinc	33.4		0.483	mg/Kg	1	7/1/2012	7/2/2012 06:24 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/25/2012 02:15 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/25/2012 02:15 PM
Toluene	U		5.0	μg/Kg	1		6/25/2012 02:15 PM
Xylenes, Total	U		15	μg/Kg	1		6/25/2012 02:15 PM
Surr: 1,2-Dichloroethane-d4	86.0		70-128	%REC	1		6/25/2012 02:15 PM
Surr: 4-Bromofluorobenzene	96.9		73-126	%REC	1		6/25/2012 02:15 PM
Surr: Dibromofluoromethane	92.9		71-128	%REC	1		6/25/2012 02:15 PM
Surr: Toluene-d8	94.0		73-127	%REC	1		6/25/2012 02:15 PM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	18.3		0.0100	wt%	1		6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH - 5 @ 20 FT
 **Lab ID:** 1206925-12

Collection Date: 6/21/2012 02:05 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	U <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	2.05		0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Barium	299		4.42	mg/Kg	10	7/1/2012	7/3/2012 03:01 PM
Cadmium	0.132	J	0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Chromium	6.98		0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Iron	13,100		44.2	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Lead	7.30		0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Manganese	573		4.42	mg/Kg	10	7/1/2012	7/3/2012 03:01 PM
Molybdenum	0.165	J	0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Selenium	0.384	J	0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Silver	U		0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Uranium	0.496		0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
Zinc	35.5		0.442	mg/Kg	1	7/1/2012	7/2/2012 06:27 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/25/2012 02:44 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/25/2012 02:44 PM
Toluene	U		5.0	μg/Kg	1		6/25/2012 02:44 PM
Xylenes, Total	U		15	μg/Kg	1		6/25/2012 02:44 PM
Surr: 1,2-Dichloroethane-d4	89.8		70-128	%REC	1		6/25/2012 02:44 PM
Surr: 4-Bromofluorobenzene	96.4		73-126	%REC	1		6/25/2012 02:44 PM
Surr: Dibromofluoromethane	95.2		71-128	%REC	1		6/25/2012 02:44 PM
Surr: Toluene-d8	95.8		73-127	%REC	1		6/25/2012 02:44 PM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	26.0		0.0100	wt%	1		6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH - 5 @ 30 FT
 **Lab ID:** 1206925-13

Collection Date: 6/21/2012 02:30 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: SKS
Arsenic	0.806		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Barium	19.3		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Cadmium	U		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Chromium	2.56		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Iron	3,690		44.4	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Lead	3.28		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Manganese	32.8		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Molybdenum	0.148	J	0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Selenium	0.278	J	0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Silver	U		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Uranium	0.571		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
Zinc	8.94		0.444	mg/Kg	1	7/1/2012	7/2/2012 06:29 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/25/2012 03:13 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/25/2012 03:13 PM
Toluene	U		5.0	μg/Kg	1		6/25/2012 03:13 PM
Xylenes, Total	U		15	μg/Kg	1		6/25/2012 03:13 PM
Surr: 1,2-Dichloroethane-d4	86.6		70-128	%REC	1		6/25/2012 03:13 PM
Surr: 4-Bromofluorobenzene	97.7		73-126	%REC	1		6/25/2012 03:13 PM
Surr: Dibromofluoromethane	94.5		71-128	%REC	1		6/25/2012 03:13 PM
Surr: Toluene-d8	93.4		73-127	%REC	1		6/25/2012 03:13 PM
MOISTURE Percent Moisture	1.63		SW355	_	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4 **Work Order:** 1206925

Sample ID: Trip Blank 052212-36 Lab ID: 1206925-14 Collection Date: Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
VOLATILES			SW826	0			Analyst: PC
Benzene	U		5.0	) μg/L	1		6/26/2012 02:40 PM
Ethylbenzene	U		5.0	) μg/L	1		6/26/2012 02:40 PM
Toluene	U		5.0	) μg/L	1		6/26/2012 02:40 PM
Xylenes, Total	U		15	i μg/L	1		6/26/2012 02:40 PM
Surr: 1,2-Dichloroethane-d4	110		70-12	%REC	1		6/26/2012 02:40 PM
Surr: 4-Bromofluorobenzene	94.5		72-12	%REC	1		6/26/2012 02:40 PM
Surr: Dibromofluoromethane	116		71-12	%REC	1		6/26/2012 02:40 PM
Surr: Toluene-d8	93.5		75-12	%REC	1		6/26/2012 02:40 PM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH-6 @ 35FT
 **Lab ID:** 1206925-15

Collection Date: 6/22/2012 09:30 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	U <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
METALS			SW6020	)			Analyst: <b>SKS</b>
Arsenic	0.805		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Barium	15.7		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Cadmium	U		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Chromium	3.98		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Iron	2,640		43.2	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Lead	2.14		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Manganese	35.6		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Molybdenum	0.902		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Selenium	0.177	J	0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Silver	U		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Uranium	0.729		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
Zinc	8.32		0.432	mg/Kg	1	7/1/2012	7/2/2012 06:32 PM
VOLATILES			SW826	)			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/26/2012 04:03 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/26/2012 04:03 PM
Toluene	U		5.0	μg/Kg	1		6/26/2012 04:03 PM
Xylenes, Total	U		15	μg/Kg	1		6/26/2012 04:03 PM
Surr: 1,2-Dichloroethane-d4	72.3		70-128	%REC	1		6/26/2012 04:03 PM
Surr: 4-Bromofluorobenzene	93.3		73-126	%REC	1		6/26/2012 04:03 PM
Surr: Dibromofluoromethane	90.2		71-128	%REC	1		6/26/2012 04:03 PM
Surr: Toluene-d8	97.1		73-127	%REC	1		6/26/2012 04:03 PM
MOISTURE Percent Moisture	14.6		SW3556 0.0100		1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH-7 @20FT
 **Lab ID:** 1206925-16

Collection Date: 6/22/2012 11:55 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	0			Analyst: SKS
Arsenic	2.58		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Barium	121		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Cadmium	0.0900	J	0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Chromium	11.4		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Iron	15,500		46.8	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Lead	9.84		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Manganese	209		4.68	mg/Kg	10	7/1/2012	7/3/2012 03:03 PM
Molybdenum	0.183	J	0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Selenium	0.507		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Silver	U		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Uranium	0.871		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
Zinc	50.3		0.468	mg/Kg	1	7/1/2012	7/2/2012 06:34 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	) μg/Kg	1		6/26/2012 04:26 PM
Ethylbenzene	U		5.0	) μg/Kg	1		6/26/2012 04:26 PM
Toluene	U		5.0	) μg/Kg	1		6/26/2012 04:26 PM
Xylenes, Total	U		15	μg/Kg	1		6/26/2012 04:26 PM
Surr: 1,2-Dichloroethane-d4	74.9		70-128	%REC	1		6/26/2012 04:26 PM
Surr: 4-Bromofluorobenzene	93.4		73-126	%REC	1		6/26/2012 04:26 PM
Surr: Dibromofluoromethane	91.9		71-128	%REC	1		6/26/2012 04:26 PM
Surr: Toluene-d8	97.5		73-127	%REC	1		6/26/2012 04:26 PM
MOISTURE Percent Moisture	22.0		SW355 0.0100	-	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH-7 @29FT
 **Lab ID:** 1206925-17

Collection Date: 6/22/2012 12:25 PM Matrix: SOIL

Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
		SW602	0			Analyst: <b>SKS</b>
1.07		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
29.4		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
U		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
6.60		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
8,830		44.5	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
4.25		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
90.4		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
0.893		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
0.408	J	0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
0.165	J	0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
1.71		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
13.6		0.445	mg/Kg	1	7/1/2012	7/2/2012 06:42 PM
		SW826	0			Analyst: WLR
U		5.0	μg/Kg	1		6/26/2012 04:50 PM
U		5.0	μg/Kg	1		6/26/2012 04:50 PM
U		5.0	μg/Kg	1		6/26/2012 04:50 PM
U		15	μg/Kg	1		6/26/2012 04:50 PM
76.6		70-128	%REC	1		6/26/2012 04:50 PM
94.1		73-126	%REC	1		6/26/2012 04:50 PM
92.5		71-128	%REC	1		6/26/2012 04:50 PM
95.6		73-127	%REC	1		6/26/2012 04:50 PM
10.6			_	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM
	1.07 29.4 U 6.60 8,830 4.25 90.4 0.893 0.408 0.165 1.71 13.6 U U U U 76.6 94.1 92.5 95.6	1.07 29.4 U 6.60 8,830 4.25 90.4 0.893 0.408 J 0.165 J 1.71 13.6 U U U 76.6 94.1 92.5 95.6	Result         Qual         Limit           1.07         0.445           29.4         0.445           0         0.445           6.60         0.445           8,830         44.5           4.25         0.445           90.4         0.445           0.893         0.445           0.165         J         0.445           1.71         0.445           13.6         0.445           U         5.0           U         5.0           U         5.0           U         5.0           U         5.0           U         5.0           U         5.0           U         5.0           U         5.0           U         73-126           94.1         73-126           92.5         71-128           95.6         73-127           SW3556	Result         Qual         Limit         Units           1.07         0.445 mg/Kg           29.4         0.445 mg/Kg           0         0.445 mg/Kg           6.60         0.445 mg/Kg           8,830         44.5 mg/Kg           90.4         0.445 mg/Kg           0.893         0.445 mg/Kg           0.165         J         0.445 mg/Kg           1.71         0.445 mg/Kg           13.6         0.445 mg/Kg           U         5.0 μg/Kg           U         15 μg/Kg           76.6         70-128 %REC           92.5         71-128 %REC           95.6         73-127 %REC           SW3550	SW8020           1.07         0.445 mg/Kg         1           29.4         0.445 mg/Kg         1           0         0.445 mg/Kg         1           6.60         0.445 mg/Kg         1           8,830         44.5 mg/Kg         1           4.25         0.445 mg/Kg         1           90.4         0.445 mg/Kg         1           0.893         0.445 mg/Kg         1           0.408         J         0.445 mg/Kg         1           1.71         0.445 mg/Kg         1           1.71         0.445 mg/Kg         1           13.6         0.445 mg/Kg         1           SW8260         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg         1           U         5.0 μg/Kg	SW6020   SW6020   1.07   0.445 mg/Kg   1   7/1/2012   29.4   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.425   0.445 mg/Kg   1   7/1/2012   0.425   0.445 mg/Kg   1   7/1/2012   0.893   0.445 mg/Kg   1   7/1/2012   0.893   0.445 mg/Kg   1   7/1/2012   0.408   J   0.445 mg/Kg   1   7/1/2012   0.408   J   0.445 mg/Kg   1   7/1/2012   0.165   J   0.445 mg/Kg   1   7/1/2012   1.71   0.445 mg/Kg   1   7/1/2012   1.71   0.445 mg/Kg   1   7/1/2012   1.76   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   7/1/2012   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   1   0.445 mg/Kg   0.445 mg/Kg   0.445 mg/Kg   0.445 mg/Kg   0

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH-8 @20FT
 **Lab ID:** 1206925-18

Collection Date: 6/22/2012 02:30 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	20			Analyst: SKS
Arsenic	2.37		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Barium	103		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Cadmium	0.0881	J	0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Chromium	9.59		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Iron	13,500		43.	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Lead	8.98		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Manganese	142		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Molybdenum	0.263	J	0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Selenium	0.440		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Silver	U		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Uranium	1.98		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
Zinc	45.1		0.43	4 mg/Kg	1	7/1/2012	7/2/2012 06:45 PM
VOLATILES			SW82	60			Analyst: WLR
Benzene	U		5.	0 μg/Kg	1		6/26/2012 05:14 PM
Ethylbenzene	U		5.	0 μg/Kg	1		6/26/2012 05:14 PM
Toluene	U		5.	0 μg/Kg	1		6/26/2012 05:14 PM
Xylenes, Total	U		1	5 μg/Kg	1		6/26/2012 05:14 PM
Surr: 1,2-Dichloroethane-d4	76.9		70-12	8 %REC	1		6/26/2012 05:14 PM
Surr: 4-Bromofluorobenzene	93.2		73-12	6 %REC	1		6/26/2012 05:14 PM
Surr: Dibromofluoromethane	92.2		71-12	8 %REC	1		6/26/2012 05:14 PM
Surr: Toluene-d8	96.4		73-12	7 %REC	1		6/26/2012 05:14 PM
MOISTURE Percent Moisture	28.8		SW359 0.010	50 0 wt%	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 1206925

 **Sample ID:** MH-8 @24FT
 **Lab ID:** 1206925-19

Collection Date: 6/22/2012 02:44 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
METALS			SW602	20			Analyst: SKS
Arsenic	1.64		0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Barium	278		4.51	mg/Kg	10	7/1/2012	7/3/2012 03:11 PM
Cadmium	0.0496	J	0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Chromium	4.95		0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Iron	12,900		45.1	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Lead	5.37		0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Manganese	238		4.51	mg/Kg	10	7/1/2012	7/3/2012 03:11 PM
Molybdenum	0.233	J	0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Selenium	0.310	J	0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Silver	U		0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Uranium	0.756		0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
Zinc	28.0		0.451	mg/Kg	1	7/1/2012	7/2/2012 06:47 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	) μg/Kg	1		6/26/2012 05:38 PM
Ethylbenzene	U		5.0	) μg/Kg	1		6/26/2012 05:38 PM
Toluene	U		5.0	) μg/Kg	1		6/26/2012 05:38 PM
Xylenes, Total	U		15	5 μg/Kg	1		6/26/2012 05:38 PM
Surr: 1,2-Dichloroethane-d4	77.1		70-128	3 %REC	1		6/26/2012 05:38 PM
Surr: 4-Bromofluorobenzene	95.9		73-126	%REC	1		6/26/2012 05:38 PM
Surr: Dibromofluoromethane	92.9		71-128	3 %REC	1		6/26/2012 05:38 PM
Surr: Toluene-d8	99.1		73-127	7 %REC	1		6/26/2012 05:38 PM
MOISTURE Percent Moisture	23.7		SW355 0.0100	0 0 wt%	1		Analyst: <b>KAH</b> 6/29/2012 08:40 AM

Date: 34-Jul-12

# QC BATCH REPORT

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: 622	76 Instrument ID ICPMS05		Method:	SW602	:0						
MBLK	Sample ID: MBLKS1-070112-62276				U	nits: <b>mg/</b>	Kg	Analy	sis Date: 7	/3/2012 02	2:22 PM
Client ID:	Run	ID: ICPMS	05_120703A		Sec	qNo: <b>284</b> 4	1948	Prep Date: 7/1	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.50									
Barium	U	0.50									
Cadmium	U	0.50									
Chromium	U	0.50									
Iron	U	50									
Lead	U	0.50									
Manganese	U	0.50									
Molybdenum	U	0.50					-				
Selenium	U	0.50									
Silver	U	0.50									
Uranium	U	0.50									
Zinc	0.3329	0.50									J
LCS	Sample ID: MLCSS1-070112-62276				U	nits: <b>mg/</b>	Kg	Analy	sis Date: <b>7</b>	/3/2012 02	2:25 PM
Client ID:	Run	ID: ICPMS	05_120703A		Sec	No: <b>284</b> 4	1949	Prep Date: 7/1	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
-							00.400				
Arsenic Barium	9.939 9.935	0.50	10 10		0	99.4 99.4	80-120 80-120		)		
Cadmium	10.06	0.50	10		0	101	80-120		)		
Chromium	10.00	0.50	10		0	100	80-120		)		
Iron	993.8	50	1000		0	99.4	80-120		)		
Lead	10.11	0.50	10		0	101	80-120		)		
Manganese	10.01	0.50	10		0	100	80-120		)		
Molybdenum	10.01	0.50	10		0	100	80-120		)		
Selenium	9.862	0.50	10		0	98.6	80-120		)		
Silver	10.32	0.50	10		0	103	80-120		)		
LCS	Sample ID: MLCSS1-070112-62276				U	nits: <b>mg/</b>	Kg	Analy	sis Date: <b>7</b>	/5/2012 04	:08 PM
Client ID:		ID: ICPMS	05_120705A			qNo: <b>284</b> 6	_	Prep Date: 7/1		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Uranium	10.23	0.50	10		0	102	80-120	(	)		

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

	rument ID ICPMS05		Method	: SW6020						
MS Sample ID: 12069	925-01BMS			l	Jnits: <b>mg/</b>	Kg	Analysis Date: 7/2/2012 04:3			
Client ID: MH - 1 @ 20 FT	Run II	D: ICPMS	05_120702A	Se	qNo: <b>284</b> :	3337	Prep Date: 7/1/2	2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Araonia	10.37	0.47	0.264	2.150	07.7	75 105	0			
Arsenic Barium	138.8	0.47 0.47	9.364 9.364	2.159 133.8	87.7 54	75-125 75-125	0			SC
Cadmium	8.799	0.47	9.364	0.1314	92.6	75-125	0			30
Chromium	16.34	0.47	9.364	7.713	92.1	75-125	0			
Iron	16290	47	936.4	15740	58.9	75-125	0			SC
Lead	16.98	0.47	9.364	8.568	89.8	75-125	0			
Manganese	372.2	0.47	9.364	413.6	-442	75-125	0			SEC
Molybdenum	8.65	0.47	9.364	0.2346	89.9	75-125	0			
Selenium	9.188	0.47	9.364	0.5276	92.5	75-125	0			
Silver	8.687	0.47	9.364	0.06357	92.1	75-125	0			
Zinc	52.19	0.47	9.364	46.09	65.2	75-125	0			SO
MS Sample ID: 12069			Units: mg/Kg			Analys	is Date: 7/	5/2012 04	1:11 P	
Client ID: MH - 1 @ 20 FT	D: ICPMS	05_120705A	A SeqNo: <b>2846721</b> F			Prep Date: 7/1/2	DF: <b>1</b>			
				SPK Ref		Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qua
Uranium	10.51	0.47	9.364	0	112	75-125	0			
MSD Sample ID: 12069	925-01BMSD			l	Jnits: <b>mg/</b>	Kg	Analys	is Date: 7/	2/2012 04	1:38 P
			05_120702A		Jnits: <b>mg/</b>	_	Analysi Prep Date: <b>7/1/</b>		<b>2/2012 0</b> 4 DF: <b>1</b>	1:38 P
				Se	_	3340	Prep Date: <b>7/1/</b>		DF: <b>1</b>	1:38 P
Client ID: <b>MH - 1</b> @ <b>20 FT</b>					_	_	-			
Client ID: MH - 1 @ 20 FT  Analyte	Run II	D: ICPMS(		Se SPK Ref	eqNo: <b>284</b> :	3340 Control	Prep Date: 7/1/2	2012	DF: 1 RPD Limit	
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic	Run II Result	D: ICPMS(	SPK Val	SPK Ref Value	eqNo: <b>284</b> :	3340 Control Limit	Prep Date: <b>7/1/</b> RPD Ref Value	%RPD	DF: 1 RPD Limit	Qua
Client ID: <b>MH - 1</b> @ <b>20 FT</b> Analyte  Arsenic  Barium	Run II Result 10.45	D: ICPMS(PQL 0.46	SPK Val 9.275	SPK Ref Value 2.159	%REC 89.4	Control Limit 75-125	Prep Date: <b>7/1/</b> RPD Ref Value	<b>2012</b> %RPD  0	DF: 1 RPD Limit 25 25	Qua
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium	Run II Result 10.45 126.3	PQL 0.46 0.46	SPK Val 9.275 9.275	SPK Ref Value 2.159 133.8	%REC 89.4 -80.9	Control Limit 75-125 75-125	Prep Date: <b>7/1/</b> RPD Ref Value 10.37 138.8	%RPD 0 0	DF: 1 RPD Limit 25 25 25	Qua
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium	Result  10.45 126.3 8.962 15.54 15770	PQL 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 927.5	SPK Ref Value 2.159 133.8 0.1314	%REC 89.4 -80.9 95.2	75-125 75-125 75-125	Prep Date: <b>7/1/</b> :  RPD Ref Value  10.37 138.8 8.799 16.34 16290	%RPD 0 0	DF: 1 RPD Limit  25 25 25 25	Qua SC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium	Run II Result 10.45 126.3 8.962 15.54 15770 17.02	PQL 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275	SPK Ref Value 2.159 133.8 0.1314 7.713 15740 8.568	%REC 89.4 -80.9 95.2 84.4	75-125 75-125 75-125 75-125	Prep Date: <b>7/1/</b> :  RPD Ref Value  10.37 138.8 8.799 16.34	%RPD 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25	Qu:
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron  Lead	Run III  Result  10.45 126.3 8.962 15.54 15770 17.02 448.2	PQL 0.46 0.46 0.46 0.46 46	9.275 9.275 9.275 9.275 9.275 927.5 9.275 9.275	SPK Ref Value  2.159 133.8 0.1314 7.713 15740 8.568 413.6	%REC 89.4 -80.9 95.2 84.4 3.51	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/2 RPD Ref Value 10.37 138.8 8.799 16.34 16290 16.98 372.2	%RPD 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25	Qua SC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron  Lead  Manganese  Molybdenum	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 927.5 9.275 9.275 9.275	SPK Ref Value  2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346	%REC 89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/2 RPD Ref Value 10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65	%RPD 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25	Qua SC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron  Lead  Manganese  Molybdenum  Selenium	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592 9.261	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275	2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346 0.5276	%REC  89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1 94.2	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/:  RPD Ref Value  10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65 9.188	%RPD 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25 25 25	Qua SC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron  Lead  Manganese  Molybdenum  Selenium  Silver	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592 9.261 8.599	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275	SPK Ref Value  2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346 0.5276 0.06357	%REC  89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1 94.2 92	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: <b>7/1/</b> :  RPD Ref Value  10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65 9.188 8.687	%RPD 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25 25 25 25	Qua SO SO SEC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron  Lead  Manganese  Molybdenum  Selenium  Silver	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592 9.261	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275	2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346 0.5276	%REC  89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1 94.2	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/:  RPD Ref Value  10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65 9.188	%RPD 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25 25 25 25	Qua SO
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron Lead  Manganese  Molybdenum  Selenium  Silver  Zinc  MSD  Sample ID: 12069	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592 9.261 8.599 50.75	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275	SPK Ref Value  2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346 0.5276 0.06357 46.09	%REC 89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1 94.2 92 50.2  Units: mg/	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/2  RPD Ref Value  10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65 9.188 8.687 52.19	%RPD 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25 25 25 25 25	Qua SC SC SEC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron Lead  Manganese  Molybdenum  Selenium  Silver  Zinc  MSD  Sample ID: 12069	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592 9.261 8.599 50.75	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275	SPK Ref Value  2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346 0.5276 0.06357 46.09	%REC 89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1 94.2 92 50.2	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/2  RPD Ref Value  10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65 9.188 8.687 52.19	%RPD  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25 25 25 25 25	Qua SC SC SEC
Client ID: MH - 1 @ 20 FT  Analyte  Arsenic Barium  Cadmium  Chromium  Iron  Lead  Manganese  Molybdenum  Selenium  Silver	Result  10.45 126.3 8.962 15.54 15770 17.02 448.2 8.592 9.261 8.599 50.75	PQL 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.46	9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275 9.275	SPK Ref Value  2.159 133.8 0.1314 7.713 15740 8.568 413.6 0.2346 0.5276 0.06357 46.09	%REC 89.4 -80.9 95.2 84.4 3.51 91.2 373 90.1 94.2 92 50.2  Units: mg/	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	Prep Date: 7/1/2  RPD Ref Value  10.37 138.8 8.799 16.34 16290 16.98 372.2 8.65 9.188 8.687 52.19  Analysi	%RPD  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DF: 1 RPD Limit  25 25 25 25 25 25 25 25 25 25 25 25 25	Qua SC SC SEC

See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: <b>62276</b>	Instrument ID ICPMS05		Method	SW6020						
<b>DUP</b> Sample	ID: <b>1206925-01BDUP</b>				Units: mg/	Kg	Analysi	s Date: <b>7/</b> 2	2/2012 04	:28 PN
Client ID: MH - 1 @ 20	FT Run ID	: ICPMS	05_120702A	S	eqNo: <b>284</b> ;	3336	Prep Date: 7/1/2	2012	DF: <b>1</b>	
				SPK Ref		Control	RPD Ref		RPD Limit	
Analyte	Result	PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qua
Arsenic	1.985	0.47	0	0	0	0-0	2.159	0	25	
Barium	118.6	0.47	0	0	0	0-0	133.8	0	25	
Cadmium	0.1383	0.47	0	0	0	0-0	0.1314	0	25	J
Chromium	7.414	0.47	0	0	0	0-0	7.713	0	25	
Iron	15140	47	0	0	0	0-0	15740	0	25	
Lead	7.965	0.47	0	0	0	0-0	8.568	0	25	
Molybdenum	0.1597	0.47	0	0	0	0-0	0.2346	0	25	J
Selenium	0.6776	0.47	0	0	0	0-0	0.5276	0	25	
Silver	U	0.47	0	0	0	0-0	0.06357	0	25	
Uranium	0.8747	0.47	0	0	0		0.8842	0	25	
Zinc	44.5	0.47	0	0	0	0-0	46.09	0	25	
<b>DUP</b> Sample	ID: <b>1206925-01BDUP</b>				Units: <b>mg/</b>	Kg	Analysi	s Date: <b>7/</b> 3	3/2012 02	:30 PN
Client ID: MH - 1 @ 20	FT Run ID	: ICPMS	05_120703A	S	eqNo: <b>284</b> 4	4951	Prep Date: 7/1/2	2012	DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Manganese	303.7	4.7	0	0	0	0-0	439.3	36.5	25	R
The following sample	es were analyzed in this batch:	12	206925-01B	1206	925-02B	12	06925-03B			
gp	<b>,</b>		206925-04B		925-05B		06925-06B			
		12	206925-08B	1206	925-09B	12	06925-10B			
		12	206925-11B	1206	925-12B	12	06925-13B			
		12	206925-15B	1206	925-16B	12	06925-17B			
			206925-18B		925-19B					

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: <b>R129915</b>	nstrument ID VOA5		Metho	d: <b>SW826</b>	0						
MBLK Sample ID: VB	LKS1-062212-R129915				l	Jnits: µg/k	(g	Analys	sis Date: 6	/22/2012 ·	10:27 AM
Client ID:	Run I	D: <b>VOA5</b> _	120622A		SeqNo: <b>2830547</b>		0547	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d	4 37.67	0	50		0	75.3	70-128	(	)		
Surr: 4-Bromofluorobenzer	ne 48.11	0	50		0	96.2	73-126	(	)		
Surr: Dibromofluoromethar	ne 47.57	0	50		0	95.1	71-128	(	)		
Surr: Toluene-d8	51.05	0	50		0	102	73-127	(	)		
LCS Sample ID: VL	CSS1-062212-R129915				l	Jnits: µg/k	(g	Analys	sis Date: 6	/22/2012	09:40 AM
Client ID:	Run I	D: <b>VOA5</b> _				Prep Date:	DF: <b>1</b>				
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	46.64	5.0	50		0	93.3	79-120	(	)		
Ethylbenzene	49.88	5.0	50		0	99.8	80-122	(	)		
Toluene	48.13	5.0	50		0	96.3	79-120	(	)		
Xylenes, Total	151.2	15	150		0	101	80-120	(	)		
Surr: 1,2-Dichloroethane-d	4 41.22	0	50		0	82.4	70-128	(	)		
Surr: 4-Bromofluorobenzer	ne 47.52	0	50		0	95	73-126	(	)		
Surr: Dibromofluoromethar	ne 49.48	0	50		0	99	71-128	(	)		
Surr: Toluene-d8	49.23	0	50		0	98.5	73-127	(	)		
MS Sample ID: 120	06880-01ZMS				L	Jnits: µg/k	(g	Analys	sis Date: 6	/22/2012 ·	11:36 AM
Client ID:	Run I	D: <b>VOA5</b> _	120622A		Se	qNo: <b>283</b> (	0549	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.66	5.0	50		0	97.3	79-120	(	)		
Ethylbenzene	49.45	5.0	50		0	98.9	80-122	(			
Toluene	47.08	5.0	50		0	94.2	79-120	(			
Xylenes, Total	144.7	15	150		0	96.5	80-120	(			
Surr: 1,2-Dichloroethane-d		0	50		0	80	70-128				
Surr: 4-Bromofluorobenzer		0	50		0	96.3	73-126				
Surr: Dibromofluoromethar		0	50		0	97.3	71-128				
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See Qualifiers Page for a list of Qualifiers and their explanation.

Olsson Associates QC BATCH REPORT

**Work Order:** 1206925

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

Note:

**Client:** 

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R129915 Instrument ID VOA5 Method: SW8260 Analysis Date: 6/22/2012 11:59 AM Sample ID: 1206880-01ZMSD **MSD** Units: µg/Kg Prep Date: Client ID: SeqNo: 2830550 DF: 1 Run ID: VOA5\_120622A RPD Ref RPD SPK Ref Control Value Limit Value Limit Analyte Result PQL SPK Val %REC %RPD Qual 48.58 5.0 0 97.2 79-120 48.66 0.153 30 Benzene 50 Ethylbenzene 52.66 5.0 50 0 105 80-122 49.45 6.29 30 50 0 Toluene 50.56 5.0 101 79-120 47.08 7.13 30 Xylenes, Total 153.1 15 150 0 102 80-120 144.7 5.67 30 0 0 50 4.04 Surr: 1,2-Dichloroethane-d4 38.42 76.8 70-128 40 30

50

50

50

The following samples were analyzed in this batch:

47.78

48.61

49.22

0

0

0

1206925-01A	1206925-02A	1206925-03A	
1206925-04A	1206925-05A	1206925-06A	

95.6

97.2

98.4

73-126

71-128

73-127

48.13

48.66

48.07

0.732

0.103

2.37

30

30

30

0

0

0

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R130095 Instrume	ent ID VOA3		Metho	d: <b>SW826</b> 0	0						
MBLK Sample ID: VBLKS1-0	62512-R130095				l	Jnits: µg/k	(g	Analys	is Date: <b>6/</b>	25/2012 1	0:51 AM
Client ID:	Run ID	): VOA3_	120625A		Se	qNo: <b>283</b> 3	3789	Prep Date: DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	41.62	0	50		0	83.2	70-128	0			
Surr: 4-Bromofluorobenzene	47.2	0	50		0	94.4	73-126	0			
Surr: Dibromofluoromethane	45.21	0	50		0	90.4	71-128	0			
Surr: Toluene-d8	46.49	0	50		0	93	73-127	0			
LCS Sample ID: VLCSS1-0	62512-R130095				ι	Jnits: µg/k	(a	Analys	is Date: 6/	25/2012 0	9:23 AM
Client ID:		): <b>VOA3</b> _	120625A				Prep Date:	DF: 1		0.207	
		_								DDD	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	56.46	5.0	50		0	113	79-120	0			
Ethylbenzene	51.93	5.0	50		0	104	80-122	0			
Toluene	52.67	5.0	50		0	105	79-120	0			
Xylenes, Total	156.3	15	150		0	104	80-120	0			
Surr: 1,2-Dichloroethane-d4	45.18	0	50		0	90.4	70-128	0			
Surr: 4-Bromofluorobenzene	51.05	0	50		0	102	73-126	0			
Surr: Dibromofluoromethane	50.61	0	50		0	101	71-128	0			
Surr: Toluene-d8	49.01	0	50	1	0	98	73-127	0			
LCSD Sample ID: VLCSDS1-	-062512-R130095				l	Jnits: µg/k	ζg	Analys	is Date: 6/	25/2012 0	9:53 AM
Client ID:	Run ID	: <b>VOA3</b> _	120625A		Se	qNo: <b>283</b> 3	3788	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.99	5.0	50		0	102	79-120	56.46	10.2	30	
Ethylbenzene	46.05	5.0	50		0	92.1	80-122	51.93	12	30	
Toluene	47.06	5.0	50		0	94.1	79-120	52.67	11.3	30	
Xylenes, Total	140.9	15	150		0	94	80-120	156.3	10.3	30	
Surr: 1,2-Dichloroethane-d4	43.17	0	50		0	86.3	70-128	45.18	4.55		
Surr: 4-Bromofluorobenzene	49.72	0	50		0	99.4	73-126	51.05	2.64		
Surr: Dibromofluoromethane	49.62	0	50		0	99.2	71-128	50.61	1.96		
Surr: Toluene-d8	47.72	0	50		0	95.4	73-127	49.01	2.67		

See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates

Work Order: 1206925

US Hwy 6 & Fed Blvd Bridges Task 4 **Project:** 

MS Sample ID: 1206925	5-08AMS				Units: µg/l	<b>(</b> g	Analys	is Date: <b>6/</b> 2	25/2012 1	2:18 PI
Client ID: MH - 3 @ 20 FT	Run I	D: <b>VOA3</b> _	120625A	S	eqNo: <b>283</b> :	3792	Prep Date:		DF: <b>1</b>	
				SPK Ref		Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qual
Benzene	59.52	5.0	50	0	119	79-120	0			
Ethylbenzene	56.67	5.0	50	0	113	80-122	0			
Toluene	58.63	5.0	50	0	117	79-120	0			
Xylenes, Total	169.9	15	150	0	113	80-120	0			
Surr: 1,2-Dichloroethane-d4	42.88	0	50	0	85.8	70-128	0			
Surr: 4-Bromofluorobenzene	49.68	0	50	0	99.4	73-126	0			
Surr: Dibromofluoromethane	47.85	0	50	0	95.7	71-128	0			
Surr: Toluene-d8	47.9	0	50	0	95.8	73-127	0			
MSD Sample ID: 1206925	5-08AMSD					<i>( -:</i>	A I :			
Campio ib. ILOGOLO	OUTHOU				Units: µg/k	١g	Anaiys	is Date: <b>6/</b> 2	25/2012 1	2:47 PI
Client ID: MH - 3 @ 20 FT		D: <b>VOA3</b> _	120625A	S	Units: <b>µg/r</b> eqNo: <b>283</b> :	_	Prep Date:	is Date: <b>6/</b> 2	25/2012 1 DF: 1	2:47 PI
		D: <b>VOA3_</b>	120625A	S SPK Ref		_	-	is Date: <b>6/</b> 2	DF: 1 RPD	2:47 PI
Client ID: MH - 3 @ 20 FT		D: <b>VOA3_</b> PQL	<b>120625A</b> SPK Val			3793	Prep Date:	is Date: <b>6/</b> 2 %RPD	DF: <b>1</b>	<b>2:47 PI</b> Qual
Client ID: MH - 3 @ 20 FT  Analyte	Run II			SPK Ref	eqNo: <b>283</b> :	3793 Control	Prep Date:		DF: 1 RPD	
Client ID: <b>MH - 3 @ 20 FT</b> Analyte  Benzene	Run II	PQL	SPK Val	SPK Ref Value	eqNo: <b>283</b> %REC	3793 Control Limit	Prep Date: RPD Ref Value	%RPD	DF: 1 RPD Limit	
	Run II Result 57.39	PQL 5.0	SPK Val	SPK Ref Value	eqNo: <b>283</b> %REC 115	3793 Control Limit 79-120	Prep Date:  RPD Ref Value  59.52	%RPD 3.66	DF: 1 RPD Limit	
Client ID: MH - 3 @ 20 FT  Analyte  Benzene Ethylbenzene Toluene	Run II Result 57.39 55.26	PQL 5.0 5.0	SPK Val 50 50	SPK Ref Value	%REC 115 111	3793 Control Limit 79-120 80-122	Prep Date:  RPD Ref Value  59.52 56.67	%RPD 3.66 2.52	DF: 1 RPD Limit 30 30	
Client ID: <b>MH - 3 @ 20 FT</b> Analyte  Benzene  Ethylbenzene	Result  57.39  55.26  55.77	PQL 5.0 5.0 5.0	SPK Val 50 50 50	SPK Ref Value  0 0 0	%REC 115 111 112	3793 Control Limit 79-120 80-122 79-120	Prep Date:  RPD Ref Value  59.52 56.67 58.63 169.9	%RPD 3.66 2.52 4.99	DF: 1 RPD Limit 30 30 30 30	
Client ID: MH - 3 @ 20 FT  Analyte  Benzene Ethylbenzene Toluene Xylenes, Total	Run II Result 57.39 55.26 55.77 166.3	PQL 5.0 5.0 5.0	SPK Val 50 50 50 150	SPK Ref Value  0 0 0 0	%REC 115 111 112 111	79-120 80-122 79-120 80-120	Prep Date:  RPD Ref Value  59.52 56.67 58.63 169.9 42.88	%RPD 3.66 2.52 4.99 2.17	DF: 1 RPD Limit 30 30 30 30	
Client ID: MH - 3 @ 20 FT  Analyte  Benzene Ethylbenzene Toluene Xylenes, Total  Surr: 1,2-Dichloroethane-d4	Result  57.39  55.26  55.77  166.3  42.61	PQL 5.0 5.0 5.0 15	50 50 50 50 150	SPK Ref Value  0 0 0 0 0	%REC  115 111 112 111 85.2	79-120 80-122 79-120 80-120 70-128	Prep Date:  RPD Ref Value  59.52 56.67 58.63 169.9 42.88 49.68	%RPD  3.66 2.52 4.99 2.17 0.643	DF: 1 RPD Limit  30 30 30 30 30 30	

1206925-08A	1206925-09A	1206925-10A	
1206925-11A	1206925-12A	1206925-13A	

Client: Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R130160 Instrume	ent ID VOA5		Metho	d: <b>SW826</b> 0	0						
MBLK Sample ID: VBLKS1-0	62612-R130160				Ų	Jnits: µg/k	(g	Analys	is Date: <b>6/</b>	26/2012 0	9:18 AM
Client ID:	Run ID	): <b>VOA5</b> _	120626A		Se	qNo: <b>283</b>	5532	Prep Date: DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	35.59	0	50		0	71.2	70-128	0			
Surr: 4-Bromofluorobenzene	46.55	0	50		0	93.1	73-126	0			
Surr: Dibromofluoromethane	48.38	0	50		0	96.8	71-128	0			
Surr: Toluene-d8	50.07	0	50		0	100	73-127	0			
LCS Sample ID: VLCSS1-0	62612-R130160				ι	Jnits: µg/k	(a	Analys	is Date: 6/	26/2012 0	8:09 AM
Client ID:		): <b>VOA5</b> _	120626A				Prep Date:		DF: 1		
				CDK Det			Combral			RPD	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	Limit	Qual
Benzene	47.08	5.0	50		0	94.2	79-120	0			
Ethylbenzene	48.06	5.0	50		0	96.1	80-122	0			
Toluene	46.1	5.0	50		0	92.2	79-120	0			
Xylenes, Total	139.3	15	150		0	92.9	80-120	0			
Surr: 1,2-Dichloroethane-d4	40.22	0	50		0	80.4	70-128	0			
Surr: 4-Bromofluorobenzene	48.31	0	50		0	96.6	73-126	0			
Surr: Dibromofluoromethane	50.04	0	50		0	100	71-128	0			
Surr: Toluene-d8	47.47	0	50		0	94.9	73-127	0			
LCSD Sample ID: VLCSDS1-	-062612-R130160				Ų	Jnits: µg/k	ζg	Analys	is Date: 6/	26/2012 0	8:32 AM
Client ID:	Run ID	): <b>VOA5</b> _	120626A		Se	qNo: <b>283</b>	5531	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.75	5.0	50		0	97.5	79-120	47.08	3.48	30	
Ethylbenzene	53.8	5.0	50		0	108	80-122	48.06	11.3	30	
Toluene	50.7	5.0	50		0	101	79-120	46.1	9.49	30	
Xylenes, Total	154.3	15	150		0	103	80-120	139.3	10.2	30	
Surr: 1,2-Dichloroethane-d4	39.12	0	50		0	78.2	70-128	40.22	2.78		
Surr: 4-Bromofluorobenzene	47.69	0	50		0	95.4	73-126	48.31	1.29	30	
Surr: Dibromofluoromethane	48.35	0	50		0	96.7	71-128	50.04	3.45		
Surr: Toluene-d8	47.28	0	50		0	94.6	73-127	47.47	0.418		

See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates

Work Order: 1206925

US Hwy 6 & Fed Blvd Bridges Task 4 **Project:** 

Batch ID: R130160 Instrume	nt ID <b>VOA5</b>		Metho	d: <b>SW8260</b>							
MS Sample ID: 1206944-0	1AMS				Units: µg/l	<b>(</b> g	Analysi	is Date: 6/	Date: 6/26/2012 11:15 AM		
Client ID:	Run I	D: <b>VOA5</b> _	120626A	S	SeqNo: <b>283</b>	5536	Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	45.88	5.0	50	0	91.8	79-120	0				
Ethylbenzene	48.73	5.0	50	0		80-122	0				
Toluene	46.14	5.0	50	0		79-120	0				
Xylenes, Total	138.6	15	150	0		80-120	0				
Surr: 1,2-Dichloroethane-d4	41.03	0	50	0		70-128	0				
Surr: 4-Bromofluorobenzene	48.74	0	50	0	97.5	73-126	0				
Surr: Dibromofluoromethane	47.85	0	50	0	95.7	71-128	0				
Surr: Toluene-d8	47.36	0	50	0	94.7	73-127	0				
Guir. Toluchic do		•	00	U	0						
MSD Sample ID: 1206944-0					Units: µg/l		Analysi	is Date: <b>6/</b>		1:39 AN	
MSD Sample ID: 1206944-0	1AMSD	D: <b>VOA5</b> _				<b>(</b> g		is Date: 6/	<b>26/2012 1</b> DF: <b>1</b>	1:39 AN	
MSD Sample ID: 1206944-0	1AMSD				Units: µg/l	<b>(</b> g	Analysi	is Date: <b>6/</b> %RPD		1:39 <b>AN</b> Qual	
MSD Sample ID: 1206944-0 <sup>-</sup> Client ID: Analyte	1 <b>AMSD</b> Run II	D: <b>VOA5</b> _′	120626A	S SPK Ref	Units: µg/l SeqNo: <b>283</b> %REC	(g 5537 Control	Analysi Prep Date: RPD Ref		DF: <b>1</b> RPD		
MSD Sample ID: 1206944-0 Client ID: Analyte Benzene	1AMSD Run II Result	D: <b>VOA5_</b>	<b>120626A</b> SPK Val	SPK Ref Value	Units: µg/l SeqNo: 283 %REC 106	<b>(g</b> <b>5537</b> Control Limit	Analysi Prep Date: RPD Ref Value 45.88	%RPD 14.1	DF: 1 RPD Limit		
MSD Sample ID: 1206944-0' Client ID:  Analyte Benzene Ethylbenzene	Run II Result 52.82	D: <b>VOA5_</b> PQL 5.0	120626A SPK Val 50	SPK Ref Value	Units: μ <b>g/l</b> SeqNo: <b>283</b> %REC 106 110	(g 5537 Control Limit 79-120	Analysi Prep Date: RPD Ref Value 45.88	%RPD 14.1 12.4	DF: 1 RPD Limit		
MSD Sample ID: 1206944-0° Client ID:  Analyte Benzene Ethylbenzene Toluene	Run II Result 52.82 55.15	PQL 5.0 5.0	120626A SPK Val 50 50	SPK Ref Value	Units: μg/l SeqNo: 283 %REC 106 110 106	<b>Kg 5537</b> Control Limit  79-120 80-122	Analysi Prep Date: RPD Ref Value 45.88 48.73 46.14	%RPD 14.1 12.4	DF: 1 RPD Limit 30 30		
MSD Sample ID: 1206944-0° Client ID:  Analyte Benzene Ethylbenzene Toluene	Result  52.82 55.15 52.84	PQL 5.0 5.0 5.0	120626A SPK Val 50 50 50	SPK Ref Value	Units: μg/l SeqNo: 283 %REC 106 110 106 107	<b>Kg 5537</b> Control Limit  79-120  80-122  79-120	Analysi Prep Date: RPD Ref Value 45.88 48.73 46.14 138.6	%RPD 14.1 12.4 13.5	DF: <b>1</b> RPD Limit  30 30 30		
MSD Sample ID: 1206944-01 Client ID:  Analyte Benzene Ethylbenzene Toluene Xylenes, Total	Result  52.82  55.15  52.84  160.1	PQL 5.0 5.0 5.0 15	120626A  SPK Val  50  50  150	SPK Ref Value  0 0 0	Units: μg/l SeqNo: 283 %REC 106 110 106 107 80.3	<b>Sg S537</b> Control Limit  79-120 80-122 79-120 80-120	Analysi Prep Date: RPD Ref Value 45.88 48.73 46.14 138.6 41.03	%RPD  14.1 12.4 13.5 14.4 2.13	DF: <b>1</b> RPD Limit  30 30 30 30		
MSD Sample ID: 1206944-0* Client ID:  Analyte  Benzene Ethylbenzene Toluene Xylenes, Total Surr: 1,2-Dichloroethane-d4	Result  52.82 55.15 52.84 160.1 40.16	PQL 5.0 5.0 5.0 15	120626A  SPK Val  50 50 150 50	SPK Ref Value  0 0 0 0 0	Units: μg/l SeqNo: 283 %REC 106 110 106 107 80.3 95.7	Sp. 120 80-120 80-120 80-120 70-128	Analysi Prep Date:  RPD Ref Value  45.88 48.73 46.14 138.6 41.03 48.74	%RPD  14.1 12.4 13.5 14.4 2.13 1.89	DF: 1 RPD Limit 30 30 30 30 30 30		
MSD Sample ID: 1206944-0* Client ID:  Analyte  Benzene Ethylbenzene Toluene Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	Result  52.82 55.15 52.84 160.1 40.16 47.83	PQL 5.0 5.0 5.0 15 0	120626A SPK Val 50 50 150 50 50	SPK Ref Value  0 0 0 0 0 0	Units: μg/l SeqNo: 283 %REC 106 110 106 107 80.3 95.7 97.4	Control Limit 79-120 80-122 79-120 80-120 70-128 73-126	Analysi Prep Date:  RPD Ref Value  45.88 48.73 46.14 138.6 41.03 48.74 47.85	%RPD  14.1 12.4 13.5 14.4 2.13 1.89	DF: 1 RPD Limit  30 30 30 30 30 30 30 30		

1206925-15A	1206925-16A	1206925-17A	
1206925-18A	1206925-19A		

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

MBLK Sample ID: VBLKW-062 Client ID:												
Client ID:	Run II				L	Jnits: µg/L		Analy	sis Date: 6	/26/2012	11:56 AM	
	Run ID: <b>VOA1_120626A</b>			SeqNo: <b>2835940</b>				Prep Date: DF:			: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	U	5.0										
Ethylbenzene	U	5.0										
Toluene	U	5.0										
Xylenes, Total	U	15										
Surr: 1,2-Dichloroethane-d4	52.97	5.0	50		0	106	70-125		0			
Surr: 4-Bromofluorobenzene	47.16	5.0	50		0	94.3	72-125		0			
Surr: Dibromofluoromethane	56.54	5.0	50		0	113	71-125		0			
Surr: Toluene-d8	45.4	5.0	50		0	90.8	75-125		0			
LCS Sample ID: VLCSW-062	612-R130175				ι	Jnits: <b>µg/L</b>		Analy	sis Date: 6	/26/2012 <sup>-</sup>	12:23 PM	
Client ID:	Run II	D: <b>VOA1</b> _		SeqNo: <b>2835941</b>			Prep Date:	DF: 1				
				CDV Dof			Control	DDD Def		RPD		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	Limit	Qual	
Benzene	50.56	5.0	50		0	101	73-121		0			
Ethylbenzene	47.61	5.0	50		0	95.2	80-120		0			
Toluene	45.97	5.0	50		0	91.9	80-120		0			
Xylenes, Total	142.2	15	150		0	94.8	80-120		0			
Surr: 1,2-Dichloroethane-d4	46.31	5.0	50		0	92.6	70-125		0			
Surr: 4-Bromofluorobenzene	48.98	5.0	50		0	98	72-125		0			
Surr: Dibromofluoromethane	52.36	5.0	50		0	105	71-125		0			
Surr: Toluene-d8	46.91	5.0	50		0	93.8	75-125		0			
MS Sample ID: 12061014-01	1ZMS				L	Jnits: µg/L		Analy	sis Date: 6	/26/2012 (	)3:37 PM	
Client ID:	Run II	D: <b>VOA1</b> _	120626A		Se	qNo: <b>283</b>	5945	Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	47.44	5.0	50		0	94.9	73-121		0			
Ethylbenzene	43.06	5.0	50		0	86.1	80-120		0			
Toluene	42.91	5.0	50		0	85.8	80-120		0			
Xylenes, Total	122.8	15	150		0	81.9	80-120		0			
Surr: 1,2-Dichloroethane-d4	47.76	5.0	50		0	95.5	70-125		0			
Surr: 4-Bromofluorobenzene	50.4	5.0	50 50		0	101	70-125 72-125		0			
Surr: Dibromofluoromethane	52.21	5.0	50		0	104	71-125		0			
Surr: Toluene-d8	44.06	5.0	<i>50</i>		0	88.1	75-125		0			

See Qualifiers Page for a list of Qualifiers and their explanation.

Note:

QC Page: 10 of 13

Client: Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

QC BATCH REPORT

Batch ID: R	R130175	Instrument ID VOA1		Metho	d: <b>SW826</b>	0						
MSD	Sample ID: 1	2061014-01ZMSD				ι	Jnits: µg/L		Analysis Date: 6/26/2012 04:05			
Client ID:		Run	ID: VOA1_	120626A		Se	qNo: <b>283</b>	5946	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		47.29	5.0	50		0	94.6	73-121	47.44	0.321	20	
Ethylbenze	ne	45.64	5.0	50		0	91.3	80-120	43.06	5.8	20	
Toluene		44.45	5.0	50		0	88.9	80-120	42.91	3.52	20	
Xylenes, To	otal	146.4	15	150		0	97.6	80-120	122.8	17.6	20	
Surr: 1,2	-Dichloroethane	-d4 48.06	5.0	50		0	96.1	70-125	47.76	0.606	20	
Surr: 4-B	Bromofluorobenz	rene 51.32	5.0	50		0	103	72-125	50.4	1.8	20	
Surr: Dib	promofluorometh	ane 51.68	5.0	50		0	103	71-125	52.21	1.03	20	
Surr: Tol	luene-d8	47.83	5.0	50		0	95.7	75-125	44.06	8.2	20	

The following samples were analyzed in this batch:

1206925-14A

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

QC BATCH REPORT

Batch ID: F	R130375	Instrument ID B	alance1		Method	: SW355	50		(Dissolve	e)			
DUP	Sample ID:	1206925-18BDUF	•				U	nits: wt%	, D	Analys	sis Date: 6/	29/2012 0	8:40 AM
Client ID: N	MH-8 @20FT		Run ID	: BALAN	ICE1_12062	ЭВ	Sec	qNo: <b>284</b> 0	0931	Prep Date:		DF: <b>1</b>	
Analyte			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Mo	oisture		30.08	0.010	0		0	0	0-0	28.8	4.34	20	
The follow	ving samples w	vere analyzed in t	his batch:	12	206925-01B 206925-04B 206925-08B 206925-11B	12 12	20692 20692	25-02B 25-05B 25-09B 25-12B	12	06925-03B 06925-06B 06925-10B 06925-13B			
					206925-15B 206925-18B	12	20692	25-16B	12	06925-17B			

**Client:** Olsson Associates

**Work Order:** 1206925

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

QC BATCH REPORT

Batch ID: R130436 Instrument ID Balance1				d: <b>SW355</b>	3550 (Dissolve			<del></del>				
<b>DUP</b> Sam	ple ID: <b>12061170-02BD</b> U	JP				L	Jnits: wt%	1	Analysi	s Date: <b>6/</b>	29/2012 0	8:40 AM
Client ID:		Run I	D: <b>BALAN</b>	ICE1_12062	9E	Se	qNo: <b>284</b> 2	2866	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture		2.953	0.010	0		0	0	0-0	3.27	10.2	20	

See Qualifiers Page for a list of Qualifiers and their explanation.

Note:

QC Page: 13 of 13

Date: 34/Lul-12 **ALS Environmental** 

**Client:** Olsson Associates **QUALIFIERS,** 

US Hwy 6 & Fed Blvd Bridges Task 4 **Project:** ACRONYMS, UNITS

WorkOrder: 1206925

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O P	Sample amount is > 4 times amount spiked  Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
<b>Units Reported</b>	Description
$\mu g/Kg$	Micrograms per Kilogram
$\mu g/L$	Micrograms per Liter
mg/Kg	Milligrams per Kilogram
wt%	

# ALS Environmental

#### Sample Receipt Checklist

Client Name:	OLSSON ASSOC - GOLDEN			Date/Time	Received:	<u>23-J</u>	lun-12 (	<u> 09:25</u>		
Work Order:	<u>1206925</u>			Received b	y:	RDH	<u> </u>			
Checklist compl	leted by Lahnnie B. Wlenesignature	22-Jui		Reviewed by:	Patricia eSignature	<u> </u>	Lyner	<u>e                                    </u>		27-Jun-12 Date
Matrices: Carrier name:	soil/water FedEx									
Shipping contai	ner/cooler in good condition?	`	res 🗸	No 🗌	Not Pre	esent				
Custody seals in	ntact on shipping container/coole	er?	∕es ✓	No 🗌	Not Pre	esent				
Custody seals in	ntact on sample bottles?	`	∕es □	No 🗆	Not Pre	esent	<b>~</b>			
Chain of custod	y present?	`	res 🗸	No 🗌						
Chain of custod	y signed when relinquished and	received?	res 🗸	No $\square$						
Chain of custod	y agrees with sample labels?	`	res 🗹	No 🗌						
Samples in prop	per container/bottle?	•	∕es ✓	No 🗌						
Sample contain	ers intact?	,	∕es ✓	No 🗆						
Sufficient samp	le volume for indicated test?	,	∕es ✓	No 🗌						
All samples reco	eived within holding time?	,	∕es ✓	No 🗆						
Container/Temp	Blank temperature in compliance	ce?	∕es ✓	No 🗆						
Temperature(s)	/Thermometer(s):	3.6	C,2.1	C/uc 2.3C U/C	0	03				
Cooler(s)/Kit(s):		42	46/4189							
Date/Time sam	ple(s) sent to storage:	6/2	23/12 16	:51				_		
Water - VOA via	als have zero headspace?		∕es ✓	No 🗆	No VOA via	als subn	nitted			
Water - pH acce	eptable upon receipt?	`	∕es ✓	No 🗌	N/A					
pH adjusted? pH adjusted by:			∕es □	No 🗸	N/A					
Login Notes:	Sample ID 1206925-1 thru - 120692-15 thru -19 rec'd 06		); Samp	le ID 1206925-8	thru -14 rec"	'd 06/22	<u>2/12@9</u>	:20 Sar	mple ID	
====	=======	======	===	=====	===:	===	===	===	==	====
Client Contacte	d:	Date Contacted:		Person	Contacted:					
Contacted By:		Regarding:								
Comments:										
CorrectiveAction	n:							SI	RC Pa	ne 1 of 1

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Fort Collins, CO +1 970 490 1511

Chain of Custody Form

Page

56115 COC 1D:

ALS Project Manager:

1206925

OLSSON ASSOC - GOLDEN: Olsson Associates

Project: CDOT US 6 Bridges

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	σ 	Customer Information		Project	Project Information	uc			1 [				
	Purchase Order		Project Name	94454	US HWY 6 & Fed.E	Fed. Blwf Bridges Task 4		>	Wol.		: :		/
	Work Order	A THE PARTY OF THE	Project Number	<b>er</b> A11-2359	320	The state of the s		о <b>В</b>	GRO (8015M)	Plot.	-0		
	Company Name	Olsson Associates	Bill To Company		Olsson Associates	48		ပ	DRO (8015M)	Plott	70		
	Send Report To	James Fix	Invoice Attn	in James Hix	100 mg		_ <b>L</b>		isi Metals	(502.07.00(	N, RCRA 8	Total Metals (6020/7000) RCRA 8 + Fe.Mn, Mo.U.Zn	
		4600 Table Mountain Drive	VOST		4690 Table Mountain Drive	lain Drive		С	774   18/2/10)   10//-18/8   14/4	10%-1-wa	क्		
	Address	Sulte 200	Addies	<b>2</b> 000 000 000 000 000 000 000 000 000 0	200			L.	Moisture				
	City/State/Zip	Golden, CO 80403	City/State/Zip		Colden, CO 80403	13	O		Gross Alpha/Selo, Rad-226/228	Seto, Rad	226728	Held	
	Phone	(30.3) 237-2072	Phone	100000000000000000000000000000000000000	(303) 237-2072		I						
	Fax	(303) 237-2850	Fax		(30) 237-2859	TO A TOTAL OF THE PARTY OF THE		-		The same of the sa			
	e-Mail Address	ALL LAND TO THE PROPERTY OF TH	e-Mail Address	88			3						
3	No.	Sample Description	Dafe	Time	Matrix	Pres.	# Bottles	A B	o	D E	F	G H I I	Hold
7 of	1-HW 1	MH-1@20ft	06/20/13	09:30	Soi!	3	W	ブネ	7	シ	多	今	
42	2 MH-1	MH-1@34ft	06/20/12/10:	00	Soil	j	W	7	*	7	>	*	
	3 MH-20	\$ 20 Ft	06/20/12 12:50	<u> </u>	Sp./	į	M	>	サットサッ	#\ /	> 1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
	4 MH-2@30H	2304	06/20/12 13:	31.15	Sor?	35,	M	<i>&gt;</i> <i>≥</i>	/ <del>,</del>	7	>	<b>*</b>	
	5 MH-12	MH-12 @ 16 FF	06/20/12 15:	8	1/205	ice	8	<i>}</i>	14. A	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	>	#4	
	6 MH-12	MH-12@23ft	1 21/00/90	45	Thes	1ce	B	7	> +	7	7	<i>Z</i> ±	
	7 Toro Blank	lank											
	8 Termo	Envolvative Blank											
	6												
	10					Value							
	Sampler(s) Please Print & Sign	nt & Sign	Shipment Method	Method	Requi	Required Turnaround Time: (Check Box)	nd Time: (Ch	eck Box)	AND COL		1.5 1.5 1.5 1.5	Results Due Date:	
**************************************	Relinquished Wines HY		0ate: 70/12 Time: 734 Re	Received by:	×		Ž	Notes:	10 Day TAT	TAT			
	Relinquished by:			Received by Laboratory:		IN GOLD	BA	Cooler ID		Cooler Temp. OC	Package:	QC Package: (Check One Box Below)	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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Control Swerkfold

9-5035

7-Other 8-4°C

6-NaHSO,

5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

4-NaOH

3-H<sub>2</sub>SO<sub>2</sub>

2-HNO,

1-HCI

Preservative Key:

Time:

Date:

Logged by (Laboratory):

TRAP Challe

QC Package: (Check One Box Below) Level II Std OC
 Level III Std OC/Raw Data

d this notion can be somewhat any to	ORIGIN ID: ALS CABOR 10450 STF HOUSTON UNITED
e Tracking Number	נפרבנים אכר 1978
der's James Hix	Phone 303 237 2078
Company 0/350 M Associates	÷
Address 4690 Table Mounts	my Dr. 200
hölden s	Dept.Floor/Suite Boom
ur Internal Billing Reference	

# ALS Laboratory Group

10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

# Chain of Custody Form

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ALS Project Manager:

1206925

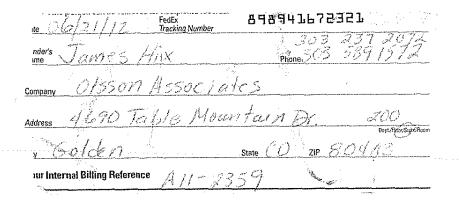
OLSSON ASSOC - GOLDEN: Olsson Associates Project: CDOT US 6 Bridges

Customer Information		Project Information	formation											ſ
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Work Order	Project Number		359		В	R.	GRO (8015 m)	15 m	けつ	PP PP				
company Name Olsson Associates	Bill To Company		01550n Associates	coates	U	DRC	DRO (BOISM)	015n	C	to of				
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Fax 303, 237, 2659	Fax	Same	ر.		_	2 - 5			i				i	
e-Mail Address / hix@ Da Con Sulting, Com	Jorn e-Mail Address	Same	6		رب									
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2 MH-3@24ft	06/21/12 0	06:30 \$	Soil 10e	m	*	#	*	`^	1 1	I				
3 MH-4@ 15ft	11 21/12/90		50,7 ree	m	<u> </u>	#	*	1	# 1	¥				
4 MH-4@ 20ft	11 21/12/20	11:55 \$	Soil 10e	ر س	7	#	#	7	F /	4				
5 MH-5 @ 20 H	11/12/12	14:05 Soil	1.7 /10	e S	3	#	Ħ	1	M	#				
· MH-5@30 H	11 21/12/20	14:30 Soi	"1 /ce	e. 3		¥	#	1	1 #	¥		-		
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Relinguished by:		eived Byll Kaboratory			ŏ Z	Cooler ID	Coole	Cooler Temp	QC Package: (Check One Box Below)	ige: (Che	ck One B	ox Below)		
Logged by (Laboratory): Date:	Time: Che	Checked by (Laboratory	Jan 1 ilino	7					Level	Level III Std QC	☐ Level III Std QC/Raw Date		TRRP Level IV	ecklist ret IV
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-	4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	6-NaHSO,	7-Other 8-4	8-4°C 9-5035					D Level	☐ Level IV SW846/CLP	//CLP			

39 of 42

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Page

Chain of Custody For

56116 COC ID:

ALS Project Manager:

1206925

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OLSSON ASSOC - GOLDEN: Olsson Associates

Project: CDOT US 6 Bridges

	Customer Information	uo		Pro,	Project Information	ıtion										
Purchase Order			Project Name	3,627.5	JS Hury 6 & Pe	US Hwy 6 & Fed.Bird Bridges Task 4		₹.	NOC (	VOC (8260) BTEX	LX.		- <del></del>			
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Fax	(303) 237-2659	THE REAL PROPERTY OF THE PROPE		Ā	(303) 237-2659			_								
e-Mail Address			e-Mail Address	ress				5								
No.	Sample Description		Date	Time	Matrix	Pres.	# Bottles	¥	8	0 0	ш	ш	5	-  -	C	Hold
9-HW  -	@ 35 ft		6/23/12	06:50	1.08.0	3	ಬ		±	> ユ	土	>	±			
2 MM-7	MH-7@30 4+	THE TAXABLE PARTY OF THE TAXABLE PARTY OF THE TAXABLE PARTY OF THE TAXABLE PARTY OF THE TAXABLE PARTY OF TAX	6/22/12	11,55	5 Soil	<u>.</u>	B		エ	> エ	I	>	I			
3 MH-7	MH-7@294	THE AN IN THE PROPERTY OF THE	6/22/13	12:25	5 50:1	<u>;</u>	4	>	エ	ンエ	エ	>				
4 MH-8	MH-8@20ft		6/83/13	14:30	) Soi)	, co	33	>	土	\ +	丰	>	ュ			
6 MH-8	MH-8 @ 24 Pt		6/33/12	<u>+</u>	1.80:1	je	3	>	土	<u>ナ</u>	土	>	土			
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Relinquished by:	V X 62	(0/0,0) (0) Date:	Time:	Received by	Coporator	1,19217	TYZ M ZYL	Cooler ID		Coaler Temp.	mp.	Package	: (Check	QC Package: (Check One Box Below)	(wo	
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QC Package: (Check One Box Below) AZ Levrel II Sta OC Levrel III Sta OCTRove Date T Level N. Stylk \$10.1

9-5035

8-4°C

7-Other

6-NaHSO4

5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

4-NaOH

3-H<sub>2</sub>SO<sub>4</sub>

2-HNO3

Preservative Key: 1-HCI

Logged by (Laboratory):

Ime:

Date:

Address 4690 Table Mountain Dr. 200

Very Golden State CO ZIP SOCIOS

West Phone 303 237-2072

Address 4690 Table Mountain Dr. 200

Dept. Professional John

1206925





FJ-Jul-2012

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

Tel: (303) 237-3139 Fax: (303) 374-3139

Re: US Hwy 6 & Fed Blvd Bridges Task 4 Work Order: 12061234

Dear James,

ALS Environmental received 8 samples on 27-Jun-2012 09:05 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 32.

atricia L. Lynch

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Kelsey N. Brown

Patricia L. Lynch Project Manager TNI LABORATORA

Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Enuironmental 🎘

www.alsglobal.com

Client: Olsson Associates

Project: US Hwy 6 & Fed Blvd Bridges Task 4 Work Order Sample Summary

Work Order: 12061234

Lab Samp ID Client Sample ID	<u>Matrix</u>	Tag Number	<b>Collection Date</b>	Date Received	Hold
12061234-01 MH-9 @ 15ft	Soil		6/25/2012 09:38	6/27/2012 09:05	
12061234-02 MH-9 @ 24ft	Soil		6/25/2012 09:53	6/27/2012 09:05	
12061234-03 MH-11 @ 20ft	Soil		6/25/2012 11:50	6/27/2012 09:05	
12061234-04 MH-11 @ 30ft	Soil		6/25/2012 12:15	6/27/2012 09:05	
12061234-05 MH-11 @ 39ft	Soil		6/25/2012 12:45	6/27/2012 09:05	
12061234-06 MH-10 @ 29ft	Soil		6/25/2012 15:23	6/27/2012 09:05	
12061234-07 MH-10 @ 34ft	Soil		6/25/2012 15:53	6/27/2012 09:05	
12061234-08 Trip Blank	Water		6/25/2012	6/27/2012 09:05	

**Client:** Olsson Associates

Project: US Hwy 6 & Fed Blvd Bridges Task 4 Case Narrative

**Work Order:** 12061234

Batch 62368, Metals, Sample 1206984: MS/MSD recoveries and RPDs and duplicate RPD are for an unrelated sample.

Batch R 130335, BTEX: MSD recoveries in sample MH-10 @ 34ft are above the control limits. However, the associated MS and LCS recoveries and the MS/MSD RPDs are in control.

Batch 62245, DRO: The MS/MSD recoveries were low in sample MW-11 @ 30ft due to the sample matrix. The results are flagged with E based on the high concentration in the background sample.

Batch R130575, BTEX, Sample 12061229-07Z: MSD recovery is for an unrelated sample.

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-9 @ 15ft
 **Lab ID:** 12061234-01

Collection Date: 6/25/2012 09:38 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			SW747	1A			Analyst: <b>JCJ</b>
Mercury	5.20		3.51	μg/Kg	1	7/2/2012	7/2/2012 02:51 PM
METALS			SW602	0			Analyst: SKS
Arsenic	1.63		0.449	mg/Kg	1	7/4/2012	7/5/2012 03:21 PM
Barium	183		4.49	mg/Kg	10	7/4/2012	7/6/2012 01:23 PM
Cadmium	0.101	J	0.449	mg/Kg	1	7/4/2012	7/5/2012 03:21 PM
Chromium	6.86		0.449	mg/Kg	1	7/4/2012	7/5/2012 03:21 PM
Lead	8.98		0.449	mg/Kg	1	7/4/2012	7/5/2012 03:21 PM
Selenium	0.221	J	0.449	mg/Kg	1	7/4/2012	7/5/2012 03:21 PM
Silver	0.0770	J	0.449	mg/Kg	1	7/4/2012	7/5/2012 03:21 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/29/2012 11:35 AM
Ethylbenzene	U		5.0	μg/Kg	1		6/29/2012 11:35 AM
Toluene	U		5.0	μg/Kg	1		6/29/2012 11:35 AM
Xylenes, Total	U		15	μg/Kg	1		6/29/2012 11:35 AM
Surr: 1,2-Dichloroethane-d4	89.2		70-128	%REC	1		6/29/2012 11:35 AM
Surr: 4-Bromofluorobenzene	102		73-126	%REC	1		6/29/2012 11:35 AM
Surr: Dibromofluoromethane	91.0		71-128	%REC	1		6/29/2012 11:35 AM
Surr: Toluene-d8	104		73-127	%REC	1		6/29/2012 11:35 AM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	23.6		0.0100	wt%	1		7/2/2012 03:20 PM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-9 @ 24ft
 **Lab ID:** 12061234-02

Collection Date: 6/25/2012 09:53 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			SW747	1A			Analyst: JCJ
Mercury	3.88		3.39	μg/Kg	1	7/2/2012	7/2/2012 02:53 PM
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	1.31		0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
Barium	159		0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
Cadmium	0.0917	J	0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
Chromium	7.98		0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
Lead	6.86		0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
Selenium	0.482		0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
Silver	U		0.468	mg/Kg	1	7/4/2012	7/5/2012 03:24 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/29/2012 12:05 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/29/2012 12:05 PM
Toluene	6.5		5.0	μg/Kg	1		6/29/2012 12:05 PM
Xylenes, Total	U		15	μg/Kg	1		6/29/2012 12:05 PM
Surr: 1,2-Dichloroethane-d4	86.2		70-128	%REC	1		6/29/2012 12:05 PM
Surr: 4-Bromofluorobenzene	97.0		73-126	%REC	1		6/29/2012 12:05 PM
Surr: Dibromofluoromethane	93.0		71-128	%REC	1		6/29/2012 12:05 PM
Surr: Toluene-d8	99.4		73-127	%REC	1		6/29/2012 12:05 PM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	24.6		0.0100	wt%	1		7/2/2012 03:20 PM

# **ALS Environmental**

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-11 @ 20ft
 **Lab ID:** 12061234-03

Collection Date: 6/25/2012 11:50 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW801	5M			Analyst: <b>KMB</b>
DRO (>C10 - C28)	U		1.7	mg/Kg	1	6/29/2012	7/2/2012 01:47 PM
Surr: 2-Fluorobiphenyl	65.0		60-135	%REC	1	6/29/2012	7/2/2012 01:47 PM
GASOLINE RANGE ORGANICS - SW80	15C		SW801	5			Analyst: KKP
Gasoline Range Organics	0.41		0.050	mg/Kg	1		7/2/2012 10:57 PM
Surr: 4-Bromofluorobenzene	90.0		70-130	%REC	1		7/2/2012 10:57 PM
MERCURY - SW7471B			SW747	1A			Analyst: <b>JCJ</b>
Mercury	4.33		3.43	μg/Kg	1	7/2/2012	7/2/2012 02:55 PM
METALS			SW602	0			Analyst: SKS
Arsenic	2.16		0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
Barium	118		0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
Cadmium	0.159	J	0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
Chromium	6.99		0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
Lead	9.86		0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
Selenium	0.324	J	0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
Silver	U		0.467	mg/Kg	1	7/4/2012	7/5/2012 04:31 PM
LOW-LEVEL PAHS			SW827	0			Analyst: ACN
Acenaphthene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Anthracene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Benz(a)anthracene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Benzo(a)pyrene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Benzo(b)fluoranthene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Benzo(k)fluoranthene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Chrysene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Dibenz(a,h)anthracene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Fluoranthene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Fluorene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Indeno(1,2,3-cd)pyrene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Naphthalene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Pyrene	U		6.6	μg/Kg	1	6/29/2012	6/29/2012 09:52 PM
Surr: 2-Fluorobiphenyl	72.5		43-125	%REC	1	6/29/2012	6/29/2012 09:52 PM
Surr: 4-Terphenyl-d14	92.5		32-125	%REC	1	6/29/2012	6/29/2012 09:52 PM
Surr: Nitrobenzene-d5	54.4		37-125	%REC	1	6/29/2012	6/29/2012 09:52 PM
VOLATILES			SW826				Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/29/2012 12:38 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/29/2012 12:38 PM
Toluene	11		5.0	μg/Kg	1		6/29/2012 12:38 PM
Xylenes, Total	U		15	μg/Kg	1		6/29/2012 12:38 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**Date:** 19-Jul-12

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-11 @ 20ft
 **Lab ID:** 12061234-03

Collection Date: 6/25/2012 11:50 AM Matrix: SOIL

Analyses	Result	Qual	Report Limit U	Inits	Dilution Factor Date Pro	ep Date Analyzed
Surr: 1,2-Dichloroethane-d4	85.8		70-128	%REC	1	6/29/2012 12:38 PM
Surr: 4-Bromofluorobenzene	99.7		73-126	%REC	1	6/29/2012 12:38 PM
Surr: Dibromofluoromethane	98.9		71-128	%REC	1	6/29/2012 12:38 PM
Surr: Toluene-d8	101		73-127	%REC	1	6/29/2012 12:38 PM
MOISTURE			SW3550			Analyst: KAH
Percent Moisture	14.8		0.0100	wt%	1	7/2/2012 03:20 PM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-11 @ 30ft
 **Lab ID:** 12061234-04

Collection Date: 6/25/2012 12:15 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW801	5M			Analyst: <b>KMB</b>
DRO (>C10 - C28)	87		8.5	mg/Kg	5	6/29/2012	7/2/2012 07:08 PM
Surr: 2-Fluorobiphenyl	89.9		60-135	%REC	5	6/29/2012	7/2/2012 07:08 PM
GASOLINE RANGE ORGANICS - SW80	15C		SW801	5			Analyst: KKP
Gasoline Range Organics	55		5.0	mg/Kg	100		7/4/2012 06:09 PM
Surr: 4-Bromofluorobenzene	107		70-130	%REC	100		7/4/2012 06:09 PM
MERCURY - SW7471B			SW747	1A			Analyst: JCJ
Mercury	5.44		3.48	μg/Kg	1	7/2/2012	7/2/2012 02:57 PM
METALS			SW602	0			Analyst: SKS
Arsenic	1.68		0.446	mg/Kg	1	7/4/2012	7/5/2012 04:39 PM
Barium	223			mg/Kg	10	7/4/2012	7/6/2012 01:31 PM
Cadmium	0.183	J		mg/Kg	1	7/4/2012	7/5/2012 04:39 PM
Chromium	7.65			mg/Kg	1	7/4/2012	7/5/2012 04:39 PM
Lead	8.48			mg/Kg	1	7/4/2012	7/5/2012 04:39 PM
Selenium	0.541			mg/Kg	1	7/4/2012	7/5/2012 04:39 PM
Silver	0.159	J		mg/Kg	1	7/4/2012	7/5/2012 04:39 PM
LOW-LEVEL PAHS			SW827	0			Analyst: ACN
Acenaphthene	12		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Anthracene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Benz(a)anthracene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Benzo(a)pyrene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Benzo(b)fluoranthene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Benzo(k)fluoranthene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Chrysene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Dibenz(a,h)anthracene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Fluoranthene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Fluorene	9.0		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Indeno(1,2,3-cd)pyrene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Naphthalene	2,500		66	μg/Kg	10	6/29/2012	7/3/2012 04:45 PM
Pyrene	U		6.6	μg/Kg	1	6/29/2012	7/3/2012 04:24 PM
Surr: 2-Fluorobiphenyl	82.8		43-125	%REC	1	6/29/2012	7/3/2012 04:24 PM
Surr: 2-Fluorobiphenyl	111		43-125	%REC	10	6/29/2012	7/3/2012 04:45 PM
Surr: 4-Terphenyl-d14	84.1		32-125	%REC	10	6/29/2012	7/3/2012 04:45 PM
Surr: 4-Terphenyl-d14	79.6		32-125	%REC	1	6/29/2012	7/3/2012 04:24 PM
Surr: Nitrobenzene-d5	102		37-125	%REC	10	6/29/2012	7/3/2012 04:45 PM
Surr: Nitrobenzene-d5	88.0		37-125	%REC	1	6/29/2012	7/3/2012 04:24 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	1,700		50	μg/Kg	10		6/29/2012 02:44 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**Date:** 19-Jul-12

**Client:** Olsson Associates

**Percent Moisture** 

Project: US Hwy 6 & Fed Blvd Bridges Task 4 Work Order: 12061234

29.6

 Sample ID:
 MH-11 @ 30ft
 Lab ID: 12061234-04

 Collection Date: 6/25/2012 12:15 PM
 Matrix: SOIL

Analyses	Result	Qual	Report Limit U	J <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
Ethylbenzene	1,900		50	μg/Kg	10		6/29/2012 02:44 PM
Toluene	340		50	μg/Kg	10		6/29/2012 02:44 PM
Xylenes, Total	1,900		1,500	μg/Kg	100		7/3/2012 01:04 AM
Surr: 1,2-Dichloroethane-d4	96.7		70-128	%REC	100		7/3/2012 01:04 AM
Surr: 1,2-Dichloroethane-d4	105		70-128	%REC	10		6/29/2012 02:44 PM
Surr: 4-Bromofluorobenzene	101		73-126	%REC	100		7/3/2012 01:04 AM
Surr: 4-Bromofluorobenzene	113		73-126	%REC	10		6/29/2012 02:44 PM
Surr: Dibromofluoromethane	99.7		71-128	%REC	10		6/29/2012 02:44 PM
Surr: Dibromofluoromethane	101		71-128	%REC	100		7/3/2012 01:04 AM
Surr: Toluene-d8	103		73-127	%REC	10		6/29/2012 02:44 PM
Surr: Toluene-d8	98.1		73-127	%REC	100		7/3/2012 01:04 AM
MOISTURE			SW3550	)			Analyst: KAH

0.0100 wt%

1

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

7/2/2012 03:20 PM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-11 @ 39ft
 **Lab ID:** 12061234-05

Collection Date: 6/25/2012 12:45 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			SW747	1A			Analyst: <b>JCJ</b>
Mercury	3.97		3.41	μg/Kg	1	7/2/2012	7/2/2012 02:59 PM
METALS			SW602	0			Analyst: <b>SKS</b>
Arsenic	1.31		0.468	mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
Barium	75.8			mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
Cadmium	0.102	J	0.468	mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
Chromium	6.28		0.468	mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
Lead	7.54		0.468	mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
Selenium	0.244	J	0.468	mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
Silver	U		0.468	mg/Kg	1	7/4/2012	7/5/2012 04:42 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/29/2012 01:09 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/29/2012 01:09 PM
Toluene	3.9	J	5.0	μg/Kg	1		6/29/2012 01:09 PM
Xylenes, Total	U		15	μg/Kg	1		6/29/2012 01:09 PM
Surr: 1,2-Dichloroethane-d4	86.2		70-128	%REC	1		6/29/2012 01:09 PM
Surr: 4-Bromofluorobenzene	99.4		73-126	%REC	1		6/29/2012 01:09 PM
Surr: Dibromofluoromethane	94.9		71-128	%REC	1		6/29/2012 01:09 PM
Surr: Toluene-d8	98.9		73-127	%REC	1		6/29/2012 01:09 PM
MOISTURE			SW355	0			Analyst: <b>KAH</b>
Percent Moisture	24.6		0.0100	wt%	1		7/2/2012 03:20 PM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-10 @ 29ft
 **Lab ID:** 12061234-06

Collection Date: 6/25/2012 03:23 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit	U <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			SW747	1A			Analyst: <b>JCJ</b>
Mercury	5.40		3.54	μg/Kg	1	7/2/2012	7/2/2012 03:01 PM
METALS			SW6020	0			Analyst: <b>SKS</b>
Arsenic	2.68		0.462	mg/Kg	1	7/4/2012	7/5/2012 04:44 PM
Barium	168		4.62	mg/Kg	10	7/4/2012	7/6/2012 01:36 PM
Cadmium	0.437	J	0.462	mg/Kg	1	7/4/2012	7/5/2012 04:44 PM
Chromium	8.35		0.462	mg/Kg	1	7/4/2012	7/5/2012 04:44 PM
Lead	10.4		0.462	mg/Kg	1	7/4/2012	7/5/2012 04:44 PM
Selenium	0.318	J		mg/Kg	1	7/4/2012	7/5/2012 04:44 PM
Silver	U		0.462	mg/Kg	1	7/4/2012	7/5/2012 04:44 PM
VOLATILES			SW826	0			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/29/2012 01:42 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/29/2012 01:42 PM
Toluene	2.2	J	5.0	μg/Kg	1		6/29/2012 01:42 PM
Xylenes, Total	U		15	μg/Kg	1		6/29/2012 01:42 PM
Surr: 1,2-Dichloroethane-d4	87.1		70-128	%REC	1		6/29/2012 01:42 PM
Surr: 4-Bromofluorobenzene	97.7		73-126	%REC	1		6/29/2012 01:42 PM
Surr: Dibromofluoromethane	94.9		71-128	%REC	1		6/29/2012 01:42 PM
Surr: Toluene-d8	98.6		73-127	%REC	1		6/29/2012 01:42 PM
MOISTURE			SW3550	0			Analyst: <b>KAH</b>
Percent Moisture	27.8		0.0100	wt%	1		7/2/2012 03:20 PM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4
 **Work Order:** 12061234

 **Sample ID:** MH-10 @ 34ft
 **Lab ID:** 12061234-07

Collection Date: 6/25/2012 03:53 PM Matrix: SOIL

Analyses	Result	Qual	Report Limit U	U <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
MERCURY - SW7471B			SW747	1A			Analyst: JCJ
Mercury	4.12		3.54	μg/Kg	1	7/2/2012	7/2/2012 02:32 PM
METALS			SW6020	)			Analyst: <b>SKS</b>
Arsenic	1.71		0.441	mg/Kg	1	7/4/2012	7/5/2012 04:47 PM
Barium	193		4.41	mg/Kg	10	7/4/2012	7/6/2012 01:38 PM
Cadmium	0.179	J	0.441	mg/Kg	1	7/4/2012	7/5/2012 04:47 PM
Chromium	8.19		0.441	mg/Kg	1	7/4/2012	7/5/2012 04:47 PM
Lead	10.4		0.441	mg/Kg	1	7/4/2012	7/5/2012 04:47 PM
Selenium	0.233	J	0.441	mg/Kg	1	7/4/2012	7/5/2012 04:47 PM
Silver	0.0957	J	0.441	mg/Kg	1	7/4/2012	7/5/2012 04:47 PM
VOLATILES			SW8260	)			Analyst: WLR
Benzene	U		5.0	μg/Kg	1		6/29/2012 02:13 PM
Ethylbenzene	U		5.0	μg/Kg	1		6/29/2012 02:13 PM
Toluene	4.4	J	5.0	μg/Kg	1		6/29/2012 02:13 PM
Xylenes, Total	U		15	μg/Kg	1		6/29/2012 02:13 PM
Surr: 1,2-Dichloroethane-d4	88.3		70-128	%REC	1		6/29/2012 02:13 PM
Surr: 4-Bromofluorobenzene	100		73-126	%REC	1		6/29/2012 02:13 PM
Surr: Dibromofluoromethane	92.8		71-128	%REC	1		6/29/2012 02:13 PM
Surr: Toluene-d8	100		73-127	%REC	1		6/29/2012 02:13 PM
MOISTURE			SW3550	)			Analyst: <b>KAH</b>
Percent Moisture	25.6		0.0100	wt%	1		7/2/2012 03:20 PM

**Client:** Olsson Associates

Project:US Hwy 6 & Fed Blvd Bridges Task 4Work Order:12061234Sample ID:Trip BlankLab ID:12061234-08Collection Date:6/25/2012Matrix:WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor Da	ate Prep Date Analyzed
VOLATILES			SW826	0		Analyst: PC
Benzene	U		5.0	μg/L	1	7/5/2012 10:50 AM
Ethylbenzene	U		5.0	μg/L	1	7/5/2012 10:50 AM
Toluene	U		5.0	μg/L	1	7/5/2012 10:50 AM
Xylenes, Total	U		15	μg/L	1	7/5/2012 10:50 AM
Surr: 1,2-Dichloroethane-d4	100		70-125	%REC	1	7/5/2012 10:50 AM
Surr: 4-Bromofluorobenzene	97.6		72-125	%REC	1	7/5/2012 10:50 AM
Surr: Dibromofluoromethane	97.7		71-125	%REC	1	7/5/2012 10:50 AM
Surr: Toluene-d8	98.4		75-125	%REC	1	7/5/2012 10:50 AM

Date: 19-Jul-12

QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: <b>62245</b>	Instrument ID FID-8		Method	d: SW8015	м					
MBLK Sample I	D: <b>FBLKS1-120629-62245</b>				Units: mo	ı/Kg	Analys	sis Date: 7/	/2/2012 01	:47 PM
Client ID:	Run I	D: <b>FID-8</b> _1	120702A		SeqNo: 28	43262	Prep Date: 6/29	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28) Surr: 2-Fluorobiphen	U yl 3.126	1.7 0	3.3	(	) 94.7	60-135	0			
LCS Sample I	D: FLCSS1-120629-62245				Units: mg	ı/Kg	Analys	sis Date: 7/	/2/2012 02	:09 PM
Client ID:	Run	D: <b>FID-8</b> _1	120702A		SeqNo: <b>28</b>	43263	Prep Date: 6/29	9/2012	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28)	37.42	1.7	33.3	(	) 112	70-130	0			
Surr: 2-Fluorobiphen	yl 3.358	0	3.3	(	) 102	60-135	0	ı		
MS Sample I	D: <b>12061234-04CMS</b>				Units: mo	J/Kg	Analys	sis Date: 7/	/2/2012 02	:30 PM
Client ID: MH-11 @ 301	ft Run l	D: <b>FID-8</b> _1	120702A		SeqNo: 28	43265	Prep Date: 6/29	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (>C10 - C28)	87.73	1.7	32.86	91.76	6 -12.3	70-130	0	ı		SE
Surr: 2-Fluorobiphen	yl 3.156	0	3.256	(	96.9	60-135	0	ı		
MSD Sample I	D: <b>12061234-04CMSD</b>				Units: <b>m</b> ç	ı/Kg	Analys	sis Date: 7/	/2/2012 02	:09 PM
Client ID: MH-11 @ 30t	ft Run l	D: <b>FID-8</b> _1	120702A		SeqNo: 28	43254	Prep Date: 6/29	9/2012	DF: <b>1</b>	
			SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Analyte	Result	PQL	oi it vai							
Analyte DRO (>C10 - C28)	Result	PQL 1.7	32.86	91.76	38.1	70-130	87.73	17.2	30	SE
Analyte  DRO (>C10 - C28)  Surr: 2-Fluorobiphen	104.3				38.1 73.9	70-130 <i>60-13</i> 5				SE

See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: <b>R130484</b>	Instrument ID FID-9		Metho	d: <b>SW80</b> 1	5						
MBLK Sample ID:	GBLKS1-120702-R130484				L	Jnits: <b>mg/</b>	Kg	Analys	is Date: 7/	2/2012 09	:10 PM
Client ID:	Run I	D: <b>FID-</b> 9	9_120702B		Se	qNo: <b>284</b> :	3784	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQ	L SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluoroben.	U zene 0.07665	0.05			0	76.6	70-130	0			
LCS Sample ID:	GLCSS1-120702-R130484				L	Jnits: <b>mg/</b>	Kg	Analys	is Date: 7/	2/2012 08	:35 PM
Client ID:	Run I	D: <b>FID-</b> 9	9_120702B		Se	qNo: <b>284</b> :	3782	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQ	L SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluoroben.	0.9753 zene 0.0886	0.05			0	97.5 88.6	70-130 <i>70-130</i>	0			
LCSD Sample ID:	GLCSDS1-120702-R130484				L	Jnits: <b>mg/</b>	Kg	Analys	is Date: 7/	2/2012 08	:53 PN
Client ID:	Run I	D: <b>FID-</b> 9	9_120702B			qNo: <b>284</b> :	_	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQ	L SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluoroben.	0.9798 zene 0.09147	0.05			0	98 91.5	70-130 <i>70-130</i>	0.9753 0.0886	0.462 3.19	30 30	
MS Sample ID:	12061499-11ZMS				L	Jnits: <b>mg/</b>	Kg	Analys	is Date: 7/	2/2012 10	:04 PM
Client ID:	Run I	D: <b>FID-</b> 9	9_120702B		Se	qNo: <b>284</b> :	3786	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQ	L SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluoroben.	0.9073 zene 0.08662	0.05			0	90.7 <i>86.6</i>	70-130 <i>70-130</i>	0			
MSD Sample ID:	12061499-11ZMSD				L	Jnits: <b>mg/</b>	Kq	Analys	is Date: 7/	2/2012 10	:22 PM
Client ID:		D: <b>FID-</b> 9	9_120702B			qNo: <b>284</b> :	_	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQ	L SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.006	0.05	0 1		0	101	70-130	0.9073	10.3	30	
Surr: 4-Bromofluoroben.	zene 0.08936	0.005	0 0.1		0	89.4	70-130	0.08662	3.11	30	
The following samples w	ere analyzed in this batch:		12061234- 03A	12 04		234-					

See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

30	592	Instrument ID F	FID-9		Metho	d: <b>SW80</b> 1	5						
S	Sample ID: (	GBLKW1-12070	4-R130592				U	Jnits: <b>mg/</b>	Kg	Analys	sis Date: 7/	4/2012 04	:58 PM
			Run	ID: FID-9_	120704B		Se	qNo: <b>284</b> 6	6299	Prep Date:		DF: <b>1</b>	
			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
_	e Organics ofluorobenz	rene (	U 0.09355	0.050 0.0050	0.1		0	93.6	70-130	0	ı		
S	Sample ID: (	GLCSW1-12070	4-R130592				U	Jnits: <b>mg/</b> l		Analys	sis Date: 7/	4/2012 04	:05 PM
			Run	ID: <b>FID-9</b> _	120704B		Se	qNo: <b>284</b> 6	6297	Prep Date:		DF: <b>1</b>	
			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
	e Organics	zene	1.131 <i>0.116</i>	0.050 0.0050	1 <i>0.1</i>		0	113 <i>116</i>	70-130 70-130	0			
					0.1								
S	Sample ID: (	GLCSDW1-1207			420704B			Jnits: mg/l		Analys Prep Date:	sis Date: 7/	4/2012 04 DF: 1	:23 PM
			Run	ID: <b>FID-9</b> _	120704B	0DK D - (	Sei	qNo: <b>2846</b>				RPD	
			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	Limit	Qual
-	e Organics	rene	1.056 <i>0.1127</i>	0.050 0.0050	1 <i>0.1</i>		0	106 113	70-130 <i>70-130</i>	1.131 0.116		30 30	
S	Sample ID: 1	12061280-01ZM	S				U	Jnits: <b>mg/</b> l	Kg	Analys	sis Date: 7/	4/2012 05	:34 PM
			Run	ID: <b>FID-9</b> _	120704B			qNo: <b>284</b> 6	_	Prep Date:		DF: <b>1</b>	
			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ae	e Organics		1.638	0.050	1	0.589	94	105	70-130	0	ı		
_	ofluorobenz	ene (	0.09035	0.0050	0.1		0	90.3	70-130				
S	Sample ID: 1	12061280-01ZM	SD				U	Jnits: <b>mg/</b> l	Kg	Analys	sis Date: 7/	4/2012 05	:52 PM
			Run	ID: FID-9_	120704B		Se	qNo: <b>284</b> 6	6302	Prep Date:		DF: <b>1</b>	
			Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ge	e Organics		1.648	0.050	1	0.589	94	106	70-130	1.638	0.613	30	
m	ofluorobenz	zene	0.08546	0.0050	0.1		0	85.5	70-130	0.09035	5.55	30	
m	ofluorobenz	ere analyzed in	1.648 0.08546	0.050 0.0050	1			106	70-130		1.638	1.638 0.613	1.638 0.613 30

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: 62	2289	Instrument ID HG02		Metho	d: <b>SW747</b>	′1A					
MBLK	Sample ID: 6	BBLKS1-070212-62289	9			Units: µg/l	Kg	Analys	is Date: 7/	2/2012 02	:24 PN
Client ID:			Run ID: <b>HG02</b>	_120702A		SeqNo: <b>284</b>	3013	Prep Date: <b>7/2/</b>	2012	DF: <b>1</b>	
Analyte		Resu	ılt PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Mercury		ı	U 3.3	}							
LCS	Sample ID: 0	GLCSS1-070212-62289	)			Units: µg/l	Kg	Analys	is Date: 7/	2/2012 02	:26 PN
Client ID:			Run ID: <b>HG02</b>	_120702A		SeqNo: <b>284</b>	3014	Prep Date: <b>7/2/</b>	2012	DF: 1	
Analyte		Resu	ilt PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Mercury		334.	7 3.3	333.3		0 100	85-115	0			
MS	Sample ID: 1	2061234-07BMS				Units: µg/l	Kg	Analys	is Date: 7/	2/2012 02	:38 PI
Client ID: MI	H-10 @ 34ft		Run ID: <b>HG02</b>	_120702A		SeqNo: <b>284</b>	3017	Prep Date: <b>7/2/</b>	2012	DF: <b>1</b>	
Analyte		Resu	lt PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Mercury		327.	8 3.5	350.3	4.12	21 92.4	85-115	0			
MSD	Sample ID: 1	2061234-07BMSD				Units: µg/l	Kg	Analys	is Date: 7/	2/2012 02	:40 PN
Client ID: MI	H-10 @ 34ft		Run ID: <b>HG02</b>	_120702A		SeqNo: <b>284</b>	3018	Prep Date: 7/2/	2012	DF: <b>1</b>	
Analyte		Resu	lt PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Mercury		333.	6 3.5	349.6	4.12	21 94.2	85-115	327.8	1.73	20	
DUP	Sample ID: 1	2061234-07BDUP				Units: µg/l	Kg	Analys	is Date: 7/	2/2012 02	:34 PN
Client ID: MI	H-10 @ 34ft		Run ID: <b>HG02</b>	_120702A		SeqNo: <b>284</b>	3016	Prep Date: <b>7/2/</b>	2012	DF: 1	
Analyte		Resu	lt PQL	. SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Mercury		4.17	7 3.5	0		0 0		4.121	1.35	20	
The following	ng samples we	ere analyzed in this ba		12061234- 01B 12061234- 04B 12061234- 07B	02	2061234-	03	2061234-			

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: 62	368 Instrumen	t ID ICPMS05		Method	d: SW602	20						
MBLK	Sample ID: MBLKS1-07	0412-62368				Unit	s: <b>mg/</b> l	Kg	Analy	sis Date: 7	/5/2012 03	3:37 PM
Client ID:		Run ID	: ICPMS	05_120705 <i>A</i>		SeqN	o: <b>284</b> 6	6704	Prep Date: 7/4	/2012	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%	6REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		U	0.50									
Barium		U	0.50									
Cadmium		U	0.50									
Chromium		U	0.50									
Lead		U	0.50									
Selenium		U	0.50									
Silver		U	0.50									
LCS	Sample ID: MLCSS1-07	0412-62368				Unit	s: <b>mg/</b> l	Kg	Analy	sis Date: 7	/5/2012 02	2:40 PN
Client ID:		Run ID	: ICPMS	05_120705 <i>A</i>		SeqN	o: <b>284</b> 6	6443	Prep Date: 7/4	/2012	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%	6REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		8.509	0.50	10		0	85.1	80-120	(	)		
Barium		10.32	0.50	10		0	103	80-120	(			
Cadmium		9.899	0.50	10		0	99	80-120	(			
Chromium		8.364	0.50	10		0	83.6	80-120	(	)		
Lead		9.862	0.50	10		0	98.6	80-120	(	)		
Silver		8.721	0.50	10		0	87.2	80-120	(	)		
LCS	Sample ID: MLCSS1-07	0412-62368				Unit	s: <b>mg/</b> l	Kg	Analy	sis Date: 7	/6/2012 0 <sup>-</sup>	1:03 PM
Client ID:		Run ID	: ICPMS	05_120706 <i>A</i>			o: <b>284</b> 8		Prep Date: 7/4	/2012	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%	6REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium		10.16	0.50	10		0	102	80-120	(	)		
MS	Sample ID: <b>1206984-01</b>	BMS				Unit	s: <b>mg/</b> l	Kg	Analy	sis Date: 7	/5/2012 03	3:00 PM
Client ID:		Run ID	: ICPMS	05_120705 <i>A</i>	1	SeqN	o: <b>284</b> 6	6451	Prep Date: 7/4	/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%	6REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		11.28	0.44	8.778	2.92	23	95.2	75-125	(	)		
Barium		212.3	0.44	8.778	125		985	75-125	(			SEO
Cadmium		8.707	0.44	8.778	0.0470		98.6	75-125	(			
Chromium		16.37	0.44	8.778	6.5		111	75-125	(			
Lead		15.56	0.44	8.778	7.6		90.1	75-125	(			
Silver		8.123	0.44	8.778	0.025		92.2	75-125	(			

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

	2368 Instrument	ID ICPMS05		ivietnoc	l: SW6020						
MS	Sample ID: 1206984-01	BMS				Units: <b>mg/</b>	Kg	Analysi	s Date: <b>7/</b>	5/2012 04	:21 PI
Client ID:		Run II	D: ICPMS	05_120705A	. S	eqNo: <b>284</b>	6729	Prep Date: 7/4/2	2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Selenium		7.797	0.44	8.778	0.2796	85.6	75-125	0			
MSD	Sample ID: <b>1206984-01</b>	BMSD				Units: <b>mg/</b>	Kg	Analysi	s Date: <b>7/</b>	5/2012 03	3:03 PI
Client ID:		Run II	D: ICPMS	05_120705A	. S	eqNo: <b>284</b>	6452	Prep Date: 7/4/2	2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Arsenic		12.87	0.44	8.74	2.923	114	75-125	11.28	13.2	25	
Barium		326	0.44	8.74	125.8	2290	75-125 75-125	212.3	42.3	25	SRE
Cadmium		8.697	0.44	8.74	0.04709	99	75-125	8.707	0.106	25	0.12
Chromium		15.92	0.44	8.74	6.583	107	75-125	16.37	2.77	25	
Lead		24.3	0.44	8.74	7.643	191	75-125	15.56	43.9	25	SR
Silver		7.728	0.44	8.74	0.02574	88.1	75-125	8.123	4.99	25	
MSD	Sample ID: <b>1206984-01</b>	BMSD				Units: <b>mg/</b>	Kg	Analysi	s Date: <b>7/</b>	5/2012 04	:24 PI
Client ID:	·		D: ICPMS	05_120705A	. S	SeqNo: <b>2846731</b>			2012	DF: <b>1</b>	
					SPK Ref		Control	RPD Ref		RPD	
Analyte		Result	PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qua
Selenium		7.693	0.44	8.74	0.2796	84.8	75-125	7.797	1.33	25	
DUP	Sample ID: 1206984-01	BDUP				Units: <b>mg/</b>	Kg	Analysi	s Date: <b>7/</b>	5/2012 02	2:52 PN
Client ID:		Run II	D: ICPMS	05_120705A	. S	eqNo: <b>284</b>	6448	Prep Date: 7/4/2	2012	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Arsenic		2.443	0.45	0	0	0	0-0	2.923	17.9	25	
		126	0.45	0	0	0	0-0	125.8	0.13	25	
Barium		U	0.45	0	0	0	0-0	0.04709	0	25	
				0	0	0	0-0	6.583	1.6	25	
Cadmium		6.479	0.45	U			0-0	7.643	34.3	25	R
Cadmium Chromium		5.406	0.45 0.45	0	0	0	0 0				
Cadmium Chromium Lead					0	0	0-0	0.02574	0	25	
Cadmium Chromium Lead Silver	Sample ID: <b>1206984-01</b> I	5.406 U	0.45	0	0	_	0-0		0 s Date: <b>7/</b>		l:19 PN
Cadmium Chromium Lead Silver	Sample ID: <b>1206984-01</b> I	5.406 U BDUP	0.45 0.45	0	0	0	0-0 <b>Kg</b>		s Date: <b>7/</b>		l:19 Pl
Barium Cadmium Chromium Lead Silver  DUP Client ID: Analyte	Sample ID: <b>1206984-01</b> I	5.406 U BDUP	0.45 0.45	0	0	0 Units: <b>mg/</b>	0-0 <b>Kg</b>	Analysi	s Date: <b>7/</b>	5/2012 04	<b>I:19 Pl</b> Qua

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: <b>62368</b>	Instrument ID ICPMS05	Method:	SW6020	
The following sample:	s were analyzed in this batch:	12061234- 01B	12061234- 02B	12061234- 03B
		12061234- 04B	12061234- 05B	12061234- 06B
		12061234- 07B		

See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: <b>62244</b>	Instrument ID SV-2	Method: SW8270
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MBLK Sample ID: SBLKS	1-120629-62244				Units: µg/	Kg	Analysis Date: 6/29/2012 08:08 PI			
Client ID:	Run I	D: <b>SV-2_1</b>	20629A		SeqNo: <b>28</b> 4	2022	Prep Date: 6/2	29/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	U	6.6								
Anthracene	U	6.6								
Benz(a)anthracene	U	6.6								
Benzo(a)pyrene	U	6.6								
Benzo(b)fluoranthene	U	6.6								
Benzo(k)fluoranthene	U	6.6								
Chrysene	U	6.6								
Dibenz(a,h)anthracene	U	6.6								
Fluoranthene	U	6.6								
Fluorene	U	6.6								
Indeno(1,2,3-cd)pyrene	U	6.6								
Naphthalene	U	6.6								
Pyrene	U	6.6								
Surr: 2-Fluorobiphenyl	110.6	6.6	166.7		0 66.4	43-125	<u> </u>	0		
Surr: 4-Terphenyl-d14	140.5	6.6	166.7		0 84.3	32-125	<u></u>	0		
Surr: Nitrobenzene-d5	94.72	6.6	166.7		0 56.8	37-125	i	0		

LCS Sample II	Units: <b>μg/Kg</b>			Analysis Date: 6/29/2012 08:29 PM					
Client ID:	Ru	n ID: <b>SV-2_1</b>	20629A	;	SeqNo: 2	342023	Prep Date: <b>6/29/2012</b> DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%RE	Control C Limit	RPD Ref Value %R	RPD PD Limit	Qual
Acenaphthene	106.6	6.6	166.7	C	63.9	50-120	0		
Anthracene	101.3	6.6	166.7	C	60.8	3 50-123	0		
Benz(a)anthracene	104.3	6.6	166.7	C	62.6	50-131	0		
Benzo(a)pyrene	110.3	6.6	166.7	C	66.2	2 50-130	0		
Benzo(b)fluoranthene	108.1	6.6	166.7	C	64.9	50-137	0		
Benzo(k)fluoranthene	126	6.6	166.7	C	75.6	50-143	0		
Chrysene	136.3	6.6	166.7	C	81.8	3 50-130	0		
Dibenz(a,h)anthracene	128.4	6.6	166.7	C	) 7	7 50-130	0		
Fluoranthene	105.4	6.6	166.7	C	63.2	2 50-131	0		
Fluorene	116.2	6.6	166.7	C	69.7	7 50-125	0		
Indeno(1,2,3-cd)pyrene	111.3	6.6	166.7	C	66.8	3 45-139	0		
Naphthalene	109.8	6.6	166.7	C	65.9	50-125	0		
Pyrene	108.6	6.6	166.7	C	65.	I 45-130	0		
Surr: 2-Fluorobiphen	<i>d</i> 105.7	6.6	166.7	C	63.4	43-125	5 0		
Surr: 4-Terphenyl-d1-	120.1	6.6	166.7	C	72.	1 32-125	0		
Surr: Nitrobenzene-d	90.79	6.6	166.7	C	54.	5 37-125	0		

See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: 62244 Instrument ID SV-2 Method: SW8270

MS Sample ID: 1206123	34-03CMS			l	Jnits: µg/l	<b>{</b> g	Analysis Date: 6/29/2012 10:12 P			
Client ID: MH-11 @ 20ft	Run I	D: <b>SV-2_1</b>	20629A	Se	eqNo: <b>284</b>	2025	Prep Date: 6/29	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	89.22	6.6	166.2	0	53.7	50-120	0			
Anthracene	109.7	6.6	166.2	0	66	50-123	0			
Benz(a)anthracene	110	6.6	166.2	0	66.2	50-131	0			
Benzo(a)pyrene	124.6	6.6	166.2	0	75	50-130	0			
Benzo(b)fluoranthene	118.5	6.6	166.2	0	71.3	50-137	0			
Benzo(k)fluoranthene	158.4	6.6	166.2	0	95.3	50-143	0			
Chrysene	120.5	6.6	166.2	0	72.5	50-130	0			
Dibenz(a,h)anthracene	127.1	6.6	166.2	0	76.5	50-130	0			
Fluoranthene	121.2	6.6	166.2	0	72.9	50-131	0			
Fluorene	100.2	6.6	166.2	0	60.3	50-125	0			
Indeno(1,2,3-cd)pyrene	107.8	6.6	166.2	0	64.9	45-139	0			
Naphthalene	96.46	6.6	166.2	0	58	50-125	0			
Pyrene	102	6.6	166.2	0	61.4	45-130	0			
Surr: 2-Fluorobiphenyl	115.2	6.6	166.2	0	69.3	43-125	0			
Surr: 4-Terphenyl-d14	126.9	6.6	166.2	0	76.4	32-125	0			
Surr: Nitrobenzene-d5	85.78	6.6	166.2	0	51.6	37-125	0			

MSD Sample ID: 1206123	Units: µg/Kg			Analysis Date: 6/29/2012 10:33 PM							
Client ID: MH-11 @ 20ft	Run II	D: SV-2_1	20629A	;	Sec	No: <b>284</b>	2026	Prep Date: 6/29	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	94.78	6.6	166.2	(	0	57	50-120	89.22	6.04	30	
Anthracene	128.4	6.6	166.2	(	0	77.3	50-123	109.7	15.7	30	
Benz(a)anthracene	119.3	6.6	166.2	(	0	71.8	50-131	110	8.07	30	
Benzo(a)pyrene	119.8	6.6	166.2	(	0	72.1	50-130	124.6	3.86	30	
Benzo(b)fluoranthene	111.7	6.6	166.2	(	0	67.2	50-137	118.5	5.92	30	
Benzo(k)fluoranthene	137.1	6.6	166.2	(	0	82.5	50-143	158.4	14.4	30	
Chrysene	137.1	6.6	166.2	(	0	82.5	50-130	120.5	12.9	30	
Dibenz(a,h)anthracene	132.4	6.6	166.2	(	0	79.7	50-130	127.1	4.11	30	
Fluoranthene	134.4	6.6	166.2	(	0	80.9	50-131	121.2	10.4	30	
Fluorene	118.6	6.6	166.2	(	0	71.4	50-125	100.2	16.8	30	
Indeno(1,2,3-cd)pyrene	104.3	6.6	166.2	(	0	62.7	45-139	107.8	3.3	30	
Naphthalene	101.3	6.6	166.2	(	0	61	50-125	96.46	4.88	30	
Pyrene	113.7	6.6	166.2	(	0	68.4	45-130	102	10.8	30	
Surr: 2-Fluorobiphenyl	102	6.6	166.2	(	0	61.4	43-125	115.2	12.1	30	
Surr: 4-Terphenyl-d14	130	6.6	166.2	(	0	78.3	32-125	126.9	2.47	30	
Surr: Nitrobenzene-d5	93.45	6.6	166.2	(	0	56.2	37-125	85.78	8.57	30	

The following samples were analyzed in this batch:

Note:

12061234-03C 12061234-04C

**Client:** Olsson Associates

**Work Order:** 12061234

Batch ID: R130335

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Instrument ID VOA3

 MBLK
 Sample ID: VBLKS1-062912-R130335
 Units: μg/Kg
 Analysis Date: 6/29/2012 11:04 AM

 Client ID:
 Run ID: VOA3\_120629A
 SeqNo: 2839901
 Prep Date:
 DF: 1

 Analyte
 Result
 PQL
 SPK Val
 Value
 Control Value
 RPD Ref Value
 RPD Limit
 Qual

Method: SW8260

Analyte	Result	PQL	SPK Val	Value	%REC	Limit	Value	%RPD	Limit	Qual
Benzene	U	5.0								
Ethylbenzene	U	5.0								
Toluene	U	5.0								
Xylenes, Total	U	15								
Surr: 1,2-Dichloroethane-d4	41.71	0	50	0	83.4	70-128		0		
Surr: 4-Bromofluorobenzene	49.51	0	50	0	99	73-126		0		
Surr: Dibromofluoromethane	45.03	0	50	0	90.1	71-128		0		
Surr: Toluene-d8	50.36	0	50	0	101	73-127		0		

LCS	Sample ID: VLCSS1-06	2912-R130335				Units:	ıg/Kg		Analy	ysis Date:	6/29/2012	08:50 AM
Client ID:		Run ID	: VOA3_	120629A	;	SeqNo: :	2839896		Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%RI	Con EC Lir		RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		54.54	5.0	50	(	) 10	9 79-	120		0		
Ethylbenzer	ne	56.39	5.0	50	(	) 1 <sup>·</sup>	3 80-	122		0		
Toluene		57.13	5.0	50	(	) 1	4 79-	120		0		
Xylenes, To	tal	168.8	15	150	C	) 1	3 80-	120		0		
Surr: 1,2-	Dichloroethane-d4	44.47	0	50	C	) 88	.9 70-	128		0		
Surr: 4-Bi	romofluorobenzene	52.51	0	50	C	) 1	05 73-	126		0		
Surr: Dibi	romofluoromethane	47.9	0	50	(	95	.8 71-	128	·	0		
Surr: Tolu	uene-d8	52.83	0	50	(	) 1	06 73-	127		0		

LCSD	Sample ID: VLCSDS1-0	62912-R130335				Units: <b>µg/l</b>	Kg	Analysi	s Date: 6/	29/2012 0	9:18 AM
Client ID:		Run ID	: VOA3_	120629A	Se	eqNo: <b>283</b>	9899	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		51.43	5.0	50	0	103	79-120	54.54	5.88	30	
Ethylbenzene	)	53.6	5.0	50	0	107	80-122	56.39	5.08	30	
Toluene		53.35	5.0	50	0	107	79-120	57.13	6.84	30	
Xylenes, Tota	al	160.3	15	150	0	107	80-120	168.8	5.17	30	
Surr: 1,2-D	ichloroethane-d4	45.61	0	50	0	91.2	70-128	44.47	2.53	30	
Surr: 4-Bro	omofluorobenzene	52.91	0	50	0	106	73-126	52.51	0.763	30	
Surr: Dibro	mofluoromethane	48.08	0	50	0	96.2	71-128	47.9	0.367	30	
Surr: Tolue	ene-d8	53.1	0	50	0	106	73-127	52.83	0.507	30	

See Qualifiers Page for a list of Qualifiers and their explanation.

Note:

QC Page: 10 of 15

**Client:** Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R130335 Instrument ID VOA3 Method: SW8260

MS Sample ID: 120612	34-07AMS			Units: μ <b>g/Kg</b>			Analysis Date: 6/29/2012 03:27 PN				
Client ID: MH-10 @ 34ft	Run II	Run ID: VOA3_120629A			eqNo: <b>284</b> 0	0752	Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	56.43	5.0	50	0	113	79-120	(	)			
Ethylbenzene	54.81	5.0	50	0	110	80-122	(	)			
Toluene	58.7	5.0	50	4.436	109	79-120	(	)			
Xylenes, Total	168.7	15	150	0	112	80-120	(	)			
Surr: 1,2-Dichloroethane-d4	45.91	0	50	0	91.8	70-128	(	)			
Surr: 4-Bromofluorobenzene	52.41	0	50	0	105	73-126	(	)			
Surr: Dibromofluoromethane	52.13	0	50	0	104	71-128	(	)			
Surr: Toluene-d8	53.44	0	50	0	107	73-127	(	)			

MSD Sample ID: 12061234-	SD Sample ID: 12061234-07AMSD						Units: µg/Kg Analysis				
Client ID: MH-10 @ 34ft	Run II	Run ID: VOA3_120629A			SeqNo: <b>2840753</b>				DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	68.15	5.0	50	0	136	79-120	56.43	18.8	30	S	
Ethylbenzene	65.33	5.0	50	0	131	80-122	54.81	17.5	30	S	
Toluene	71.12	5.0	50	4.436	133	79-120	58.7	19.1	30	S	
Xylenes, Total	197.3	15	150	0	132	80-120	168.7	15.6	30	S	
Surr: 1,2-Dichloroethane-d4	46.2	0	50	0	92.4	70-128	45.91	0.626	30		
Surr: 4-Bromofluorobenzene	53.98	0	50	0	108	73-126	52.41	2.96	30		
Surr: Dibromofluoromethane	52.85	0	50	0	106	71-128	52.13	1.37	30		
Surr: Toluene-d8	52.41	0	50	0	105	73-127	53.44	1.94	30		

The following s	amples were	analyzed in	this batch:
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12061234-	12061234-	12061234-	
01A	02A	03A	
12061234-	12061234-	12061234-	
04A	05A	06A	
12061234-			
07A			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

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QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R130501 Instrumer	nt ID VOA6		Metho	d: <b>SW826</b>	0						
MBLK Sample ID: VBLKM-07	0212-R130501				U	nits: µg/k	(g	Analys	is Date: <b>7/</b> 2	2/2012 11	:45 PN
Client ID:	Run II	D: <b>VOA6_</b>	120702D		Sec	qNo: <b>284</b> 4	1448	Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Xylenes, Total	U	750									
Surr: 1,2-Dichloroethane-d4	2449	0	2500		0	98	70-128	0			
Surr: 4-Bromofluorobenzene	2446	0	2500		0	97.8	73-126	0			
Surr: Dibromofluoromethane	2502	0	2500		0	100	71-128	0			
Surr: Toluene-d8	2490	0	2500		0	99.6	73-127	0			
LCS Sample ID: VLCSW-07	0212-R130501				U	nits: <b>µg/L</b>	-	Analys	s Date: 7/2	2/2012 11	:19 PN
Client ID:	Run II	D: <b>VOA6_</b>	120702D		Sec	qNo: <b>284</b> 4	1446	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Xylenes, Total	154.4	15	150		0	103	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.68	5.0	50		0	95.4	70-125	0			
Surr: 4-Bromofluorobenzene	49.87	5.0	50		0	99.7	72-125	0			
Surr: Dibromofluoromethane	49.36	5.0	50		0	98.7	71-125	0			
Surr: Toluene-d8	49.78	5.0	50		0	99.6	75-125	0			
MS Sample ID: 12061221-0	)1ZMS				U	nits: µg/k	(g	Analys	s Date: 7/3	3/2012 02	:24 AN
Client ID:	Run II	D: <b>VOA6_</b>	120702D		Sec	qNo: <b>284</b> 4	1452	Prep Date:		DF: <b>20</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qua
Xylenes, Total	2697	300	3000		0	89.9	80-120	0			
Surr: 1,2-Dichloroethane-d4	971.3	0	1000		0	97.1	70-128	0			
						100	73-126	0			
Surr: 4-Bromofluorobenzene	1003	0	1000		0	, 00					
Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane	1003 978.4	0	1000 1000		0	97.8	71-128	0			
							71-128 73-127	0			
Surr: Dibromofluoromethane Surr: Toluene-d8	978.4 989.3	0	1000		0	97.8	73-127	0	is Date: <b>7/</b>	3/2012 02	:50 AN
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0	978.4 989.3 D1ZMSD	0	1000 1000		0 0 U	97.8 98.9	73-127 (g	0	is Date: <b>7/</b> 3	3/2012 02 DF: 20	:50 AN
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0  Client ID:	978.4 989.3 D1ZMSD	0 0 D: <b>VOA6_</b>	1000 1000 120702D	SPK Ref	0 0 U	97.8 98.9 Inits: µg/K qNo: <b>284</b> 4	73-127 (g 1453 Control	0 Analys Prep Date: RPD Ref		DF: <b>20</b> RPD	
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0  Client ID:  Analyte	978.4 989.3 D1ZMSD Run II	0 0 D: <b>VOA6_</b> ^	1000 1000 120702D SPK Val	SPK Ref Value	0 0 U Sec	97.8 98.9 Inits: µg/k qNo: 2844 %REC	73-127  Kg 1453  Control Limit	Analys Prep Date: RPD Ref Value	%RPD	DF: <b>20</b> RPD Limit	: <b>50 Al</b>
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0  Client ID:  Analyte  Xylenes, Total	978.4 989.3 D1ZMSD Run II Result 2703	0 0 D: <b>VOA6_</b> PQL 300	1000 1000 120702D SPK Val 3000	SPK Ref Value	0 0 U Sec	97.8 98.9 Inits: µg/k qNo: <b>284</b> 4 %REC 90.1	73-127 (g 1453 Control Limit 80-120	0 Analys Prep Date: RPD Ref Value	%RPD 0.238	DF: 20 RPD Limit	
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0  Client ID:  Analyte  Xylenes, Total Surr: 1,2-Dichloroethane-d4	978.4 989.3 D1ZMSD Run II Result 2703 962.7	0 0 D: <b>VOA6_</b> PQL 300 0	1000 1000 120702D SPK Val 3000 1000	SPK Ref Value	0 0 U Sec 0 0	97.8 98.9 Inits: μg/k qNo: <b>284</b> %REC 90.1 96.3	73-127 (g 1453 Control Limit 80-120 70-128	Analys Prep Date:  RPD Ref Value  2697 971.3	%RPD 0.238 <i>0.888</i>	DF: <b>20</b> RPD Limit 30 30	
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0  Client ID:  Analyte  Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	978.4 989.3 D1ZMSD Run II Result 2703 962.7 993.7	0 0 0: VOA6_4 PQL 300 0	1000 1000 120702D SPK Val 3000 1000 1000	SPK Ref Value	0 0 Sec 0 0 0	97.8 98.9 Inits: µg/k qNo: <b>284</b> 4 %REC 90.1 96.3 99.4	73-127 (g 1453 Control Limit 80-120 70-128 73-126	Analys Prep Date:  RPD Ref Value  2697 971.3 1003	%RPD 0.238 0.888 0.965	DF: <b>20</b> RPD Limit  30 30 30	
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0  Client ID:  Analyte  Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane	978.4 989.3 PARSD Run II Result 2703 962.7 993.7 971.3	0 0 0: VOA6_^ PQL 300 0 0	1000 1000 120702D SPK Val 3000 1000 1000 1000	SPK Ref Value	0 0 U Sec 0 0 0	97.8 98.9 Inits: µg/k qNo: 2844 %REC 90.1 96.3 99.4 97.1	73-127  (g 1453  Control Limit  80-120 70-128 73-126 71-128	Analys Prep Date:  RPD Ref Value  2697 971.3 1003 978.4	%RPD 0.238 0.888 0.965 0.728	DF: 20 RPD Limit 30 30 30 30	
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0 Client ID:  Analyte  Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	978.4 989.3 D1ZMSD Run II Result 2703 962.7 993.7	0 0 0: VOA6_4 PQL 300 0	1000 1000 120702D SPK Val 3000 1000 1000	SPK Ref Value	0 0 Sec 0 0 0	97.8 98.9 Inits: µg/k qNo: <b>284</b> 4 %REC 90.1 96.3 99.4	73-127 (g 1453 Control Limit 80-120 70-128 73-126	Analys Prep Date:  RPD Ref Value  2697 971.3 1003	%RPD 0.238 0.888 0.965	DF: <b>20</b> RPD Limit  30 30 30	
Surr: Dibromofluoromethane Surr: Toluene-d8  MSD Sample ID: 12061221-0 Client ID:  Analyte  Xylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane	978.4 989.3 PARSD Run III Result 2703 962.7 993.7 971.3 981.7	0 0 0 0: VOA6_^ PQL 300 0 0 0	1000 1000 120702D SPK Val 3000 1000 1000 1000	SPK Ref Value	0 0 U Sec 0 0 0	97.8 98.9 Inits: µg/k qNo: 2844 %REC 90.1 96.3 99.4 97.1	73-127  (g 1453  Control Limit  80-120 70-128 73-126 71-128	Analys Prep Date:  RPD Ref Value  2697 971.3 1003 978.4	%RPD 0.238 0.888 0.965 0.728	DF: 20 RPD Limit 30 30 30 30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 12 of 15

**Client:** Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R130575 Instrumer	nt ID VOA6		Metho	d: <b>SW826</b>	50						
MBLK Sample ID: VBLKW-07	0412-R130575				L	Jnits: µg/L	-	Anal	ysis Date: 7	//5/2012 0	1:09 AM
Client ID:	Run I	D: <b>VOA6_</b>	120704C		Se	qNo: <b>284</b>	5919	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	49.06	5.0	50		0	98.1	70-125		0		
Surr: 4-Bromofluorobenzene	49.19	5.0	50		0	98.4	72-125		0		
Surr: Dibromofluoromethane	49.29	5.0	50		0	98.6	71-125		0		
Surr: Toluene-d8	49.84	5.0	50		0	99.7	75-125		0		
LCS Sample ID: VLCSW-07	0412-R130575				l	Jnits: µg/L	_	Anal	ysis Date: <b>7</b>	//5/2012 1:	2:16 AM
Client ID:	Run I	D: <b>VOA6</b> _	120704C			qNo: <b>284</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.18	5.0	50		0	98.4	73-121		0		
Ethylbenzene	50.84	5.0	50		0	102	80-120		0		
Toluene	49.87	5.0	50		0	99.7	80-120		0		
Xylenes, Total	152.8	15	150		0	102	80-120		0		
Surr: 1,2-Dichloroethane-d4	48.91	5.0	50		0	97.8	70-125		0		
Surr: 4-Bromofluorobenzene	49.3	5.0	50		0	98.6	72-125		0		
Surr: Dibromofluoromethane	49.08	5.0	50		0	98.2	71-125		0		
Surr: Toluene-d8	49.17	5.0	50		0	98.3	75-125		0		
MS Sample ID: 12061229-0	7ZMS				L	Jnits: µg/L	_	Anal	ysis Date: <b>7</b>	/5/2012 0	2:02 AM
Client ID:	Run I	D: <b>VOA6</b> _	120704C		Se	qNo: <b>284</b>	5921	Prep Date:		DF: <b>5</b> 0	00
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48360	2,500	25000	2972	20	74.6	73-121		0		
Ethylbenzene	22380	2,500	25000		0	89.5	80-120		0		
Toluene	22410	2,500	25000		0	89.7	80-120		0		
Xylenes, Total	68180	7,500	75000		0	90.9	80-120		0		
Surr: 1,2-Dichloroethane-d4	24190	2,500	25000		0	96.8	70-125		0		
Surr: 4-Bromofluorobenzene	24920	2,500	25000		0	99.7	72-125		0		
Surr: Dibromofluoromethane	24580	2,500	25000		0	98.3	71-125		0		

See Qualifiers Page for a list of Qualifiers and their explanation.

Note:

QC Page: 13 of 15

**Client:** Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

Batch ID: R130575 Instrument ID VOA6 Method: SW8260

MSD Sample ID: 12061229-	07ZMSD			ι	Jnits: µg/L	-	Analysi	s Date: 7/	5/2012 02	:28 AM
Client ID:	Run I	D: <b>VOA6</b> _	120704C	Se	qNo: <b>284</b>	5922	Prep Date:		DF: <b>50</b>	0
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47130	2,500	25000	29720	69.7	73-121	48360	2.57	20	S
Ethylbenzene	21520	2,500	25000	0	86.1	80-120	22380	3.89	20	
Toluene	22040	2,500	25000	0	88.2	80-120	22410	1.68	20	
Xylenes, Total	66890	7,500	75000	0	89.2	80-120	68180	1.91	20	
Surr: 1,2-Dichloroethane-d4	24450	2,500	25000	0	97.8	70-125	24190	1.08	20	
Surr: 4-Bromofluorobenzene	25010	2,500	25000	0	100	72-125	24920	0.35	20	
Surr: Dibromofluoromethane	24590	2,500	25000	0	98.3	71-125	24580	0.0306	20	
Surr: Toluene-d8	24530	2,500	25000	0	98.1	75-125	24640	0.444	20	

The following samples were analyzed in this batch:

12061234-08A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 12061234

**Project:** US Hwy 6 & Fed Blvd Bridges Task 4

QC BATCH REPORT

Batch ID: <b>R130527</b>	Instrument ID Balance1		Metho	d: <b>SW355</b>	0	(Dissolve	e)			
DUP Sample ID:	12061234-07CDUP				Units: wt%	6	Analys	is Date: 7/	2/2012 03	3:20 PN
Client ID: MH-10 @ 34ft	Run	ID: BALAN	ICE1_12070	)2C	SeqNo: <b>284</b>	4770	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Percent Moisture	25.13	0.010	0		0 0	0-0	25.61	1.87	20	
The following samples v	vere analyzed in this batch	0 12 0	2061234- 1C 2061234- 4C 2061234-	02	061234-	03	2061234-			

Client: Olsson Associates QUALIFIERS,

Project: US Hwy 6 & Fed Blvd Bridges Task 4
WorkOrder: 12061234

US Hwy 6 & Fed Blvd Bridges Task 4

ACRONYMS, UNITS

Qualifier **Description** Value exceeds Regulatory Limit Not accredited a В Analyte detected in the associated Method Blank above the Reporting Limit Ε Value above quantitation range Analyzed outside of Holding Time Η J Analyte detected below quantitation limit M Manually integrated, see raw data for justification Not offered for accreditation n ND Not Detected at the Reporting Limit O Sample amount is > 4 times amount spiked P Dual Column results percent difference > 40% R RPD above laboratory control limit S Spike Recovery outside laboratory control limits U Analyzed but not detected above the MDL **Acronym Description** DCS Detectability Check Study DUP Method Duplicate LCS Laboratory Control Sample LCSD Laboratory Control Sample Duplicate **MBLK** Method Blank MDL Method Detection Limit MQL Method Quantitation Limit MS Matrix Spike MSD Matrix Spike Duplicate PDS Post Digestion Spike **PQL Practical Quantitation Limit** SD Serial Dilution SDL Sample Detection Limit **TRRP** Texas Risk Reduction Program **Units Reported Description**  $\mu g/Kg$ Micrograms per Kilogram  $\mu g/L$ Micrograms per Liter mg/Kg Milligrams per Kilogram wt%

#### Sample Receipt Checklist

Client Name: OL	SSON ASSOC - GOLDEN				Date/Time	Received	d: <b>27-</b>	Jun-12	09:05	_	
Work Order: 120	<u>061234</u>				Received b	y:	RN	<u>G</u>			
Matrices: <u>S</u>	d by <u>Laymend N Gam</u> eSignature Soil, <u>Water</u> LS.HS	<i>boa</i> 2	8-Jun-12 Date	<u>!</u>	Reviewed by:	Patrice eSignat	eia <u>L.</u> ture	Lyne	h		03-Jul-12 Date
Carrier name. <u>P</u>	ALO.110										
Shipping container/	cooler in good condition?		Yes	<b>✓</b>	No 🗌	Not	Present				
Custody seals intac	ct on shipping container/coole	r?	Yes		No 🗌	Not	Present	<b>✓</b>			
Custody seals intac	ct on sample bottles?		Yes		No 🗌	Not	Present	<b>✓</b>			
Chain of custody pr	resent?		Yes	✓	No 🗆						
Chain of custody sig	gned when relinquished and ı	eceived?	Yes	<b>✓</b>	No 🗌						
Chain of custody ag	grees with sample labels?		Yes	<b>✓</b>	No $\square$						
Samples in proper	container/bottle?		Yes	<b>✓</b>	No 🗌						
Sample containers	intact?		Yes	<b>✓</b>	No 🗆						
Sufficient sample ve	olume for indicated test?		Yes	<b>✓</b>	No 🗌						
All samples receive	ed within holding time?		Yes	<b>✓</b>	No 🗆						
Container/Temp Bla	ank temperature in compliand	e?	Yes	<b>✓</b>	No 🗆						
Temperature(s)/The	ermometer(s):		2.2c				003				
Cooler(s)/Kit(s):			3628								
Date/Time sample(	s) sent to storage:		6/28/2	012 20	0: <u>55</u>						
Water - VOA vials h	nave zero headspace?		Yes	✓	No 🗆	No VOA	A vials sub	mitted			
Water - pH accepta	ble upon receipt?		Yes		No 🗌	N/A	✓				
pH adjusted? pH adjusted by:			Yes		No 🗆	N/A	<b>✓</b>				
Login Notes:											
=====	=======	=====	===	==:	====	==:	===:	==:	==	===	====
Client Contacted:		Date Contacted:			Person	Contact	ed:				
Contacted By:		Regarding:									
_ JJ.OG Dy.											
Comments:											
CorrectiveAction:									9	SRC Pa	age 1 of 1

Cincinnati, OH +1 513 733 5336 Everett, WA +1 425 356 2600

Holland, MI +1 616 399 6070

Fort Collins, CO +1 970 490 1511

Chain of Custody Form

Page of

coc ID: 561

# 12061234

OLSSON ASSOC - GOLDEN: Olsson Associates

Project: US Hwy 6 & Fed Blvd Bridges Task 4

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Purchase Order		Project Name		twy 6 & Fed.i	US Hwy 6 & Fed.Blvd Bridges Task 4	To All Park	A	700					
Work Order		Project Number		A11-2369			m	GRO (8015M)	(286)				77772
Company Name	Olsson Associates	Bill To Company	200200	Olsson Associates	1.00		ပ	DRO (Biri Sili)	(9%)				
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Fax	(303) 237-2658	ŭ.	Fax (303	(303) 237-2659									
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No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	ВС		3	FG	H	J Hold
6-HW 1.	MH-9@ 15 ft	06/25/19	86:90	Sei!	37	જ	<i>&gt;</i>	エエ	>		エ		
2 MH-9	MH-9@844	06/25/12	69:53	Soil	ગ્ર	ന	>	エ	>	<b>-1</b> -	I V		7
1-HW e	MH-11@ 20ft	06/25/12	11:50	Soil	3	N	\ \ \	主	>		<b>=</b>		
1-HW 4	MH-11@ 30ft	06/35/12	51:81	Seil	3	m	>	エ	>	T.	エ		
5 MH-U	MH-11@394	B1/58/90	12:45	So:1	i Ce	m	\ <u>\</u>	土土	>	エ	<b>±</b>		
1-HW 9	MH-10@29 Ft	06/25/12	15:23	Soil	3	8	<u> </u>	エエエ	^	` *	# /		
7 MH-16	MH-10 @ 34F+	<u> </u>	15:53	Seil.	32	W	\ \ \	ェエ	<i>\</i>	エ	H /		
8 Trip 8	Trip Blawk	21/52/20	,	raffer	156	4	>						
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10													
Sampler(s) Please Print & Sign	rint& Sign S Tix	Shipment	Method -2x	Requi	Required Turnaround Time: (Check Box)	nd Time: (Cl	reck Box)		24. 24. 25.		± 5	Results Due Date:	Date:
Relinquished by:		Date: 26/12 Time: 15 R	Received by:				Notes:		10 Day TAT				
Relinquished by:		Time:	soeived by wat	OKalpy)	2(22)2	1/2/2	Cooler ID		Cooler Temp.		kage: (Ch	QC Package: (Check One Box Below)	lowj
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4-NaOH 5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

2-HNO, 3-H<sub>2</sub>SO,

Preservative Key: 1-HCI

Logged by (Laboratory):

Copyright 2011 by ALS Environmental. Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accordance.

9-5035

6-NaHSO<sub>4</sub> 7-Other 8-4°C

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TRAF Checkle

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10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 For +1 281 530 5887

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Date: <u>/</u>/ Name: Company

# **CUSTODY SEAL**

1/26/12 Time: James Hix Olsson Associates

Rev. Date 11/10 • Part #163136 • ©1994-2010 FedEx • PRINTED IN U.S.A. SRY

Spal Broken By:

Custodi JAMES HIX, PG Sela OL TEL 303.237.2072

TEL 303.237.2072 CELL 303.589.1572 FAX 303.237.2659 jhix@oaconsulting.com



4690 Table Mountain Drive Suite 200 Golden, CO 80403 www.oaconsulting.com

# ATTACHMENT C GROUNDWATER SAMPLE ANALTYICAL REPORTS



24-Jul-2012

James Hix Olsson Associates 4690 Table Mountain Drive Suite 200 Golden, CO 80403

Tel: (303) 237-3139 Fax: (303) 374-3139

Re: US Hwy 6 & Fed. Blvd Bridges Task 4 Work Order: 1207528

Dear James,

ALS Environmental received 14 samples on 12-Jul-2012 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 40.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Jumoke M. Lawal

atricia L. Lynch

Patricia L. Lynch Project Manager TNI LABORATORA

Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887 ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

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www.alsglobal.com

Client: Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Work Order: 1207528

# **Work Order Sample Summary**

Lab Samp ID	Client Sample ID	<u>Matrix</u>	Tag Number	<b>Collection Date</b>	Date Received	Hold
1207528-01	MH 1	Groundwater		7/10/2012 10:20	7/12/2012 09:30	
1207528-02	MH 2	Groundwater		7/10/2012 11:00	7/12/2012 09:30	
1207528-03	MH 3	Groundwater		7/10/2012 11:25	7/12/2012 09:30	
1207528-04	MH 4	Groundwater		7/10/2012 11:55	7/12/2012 09:30	
1207528-05	MH 5	Groundwater		7/10/2012 00:30	7/12/2012 09:30	
1207528-06	MH 6	Groundwater		7/10/2012 13:00	7/12/2012 09:30	
1207528-07	MH 7	Groundwater		7/10/2012 14:00	7/12/2012 09:30	
1207528-08	MH 8	Groundwater		7/10/2012 14:30	7/12/2012 09:30	
1207528-09	MH 9	Groundwater		7/10/2012 14:50	7/12/2012 09:30	
1207528-10	MH 10	Groundwater		7/10/2012 15:20	7/12/2012 09:30	
1207528-11	MH 11	Groundwater		7/10/2012 15:50	7/12/2012 09:30	
1207528-12	MH 12	Groundwater		7/10/2012 16:20	7/12/2012 09:30	
1207528-13	Troip Blank 052212-26	Water		7/10/2012	7/12/2012 09:30	
1207528-14	Trip Blank 052212-49	Water		7/10/2012	7/12/2012 09:30	

**Client:** Olsson Associates

Project: US Hwy 6 & Fed. Blvd Bridges Task 4 Case Narrative

**Work Order:** 1207528

The assigned analyses were based on correspondence between ALS and Olsson Associates and may differ from those listed on the chain of custody.

DRO/ORO surrogates are diluted out in samples MH 3, MH 10, MH 11 and MH 12 due to the sample matrices.

Results for pH are flagged with H indicating that the holding times were exceeded. Per 40CFR136, the holding time for pH is "immediate."

Batch 62758, Metals, Sample 1207518-01: MS/MSD recoveries are for an unrelated sample.

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 1 **Lab ID:** 1207528-01

Collection Date: 7/10/2012 10:20 AM Matrix: GROUNDWATER

**Date:** 24-Jul-12

Analyses	Result	Qual	Report Limit Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015M			Analyst: <b>KMB</b>
TPH (Diesel Range)	0.72		0.054 mg/L	1	7/17/2012	7/17/2012 04:09 PM
TPH (Oil Range)	0.90		0.11 mg/L	1	7/17/2012	7/17/2012 04:09 PM
Surr: 2-Fluorobiphenyl	98.0		60-135 %REC	1	7/17/2012	7/17/2012 04:09 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW8015			Analyst: KKP
Gasoline Range Organics	U		0.0500 mg/L	1		7/17/2012 02:37 AM
Surr: 4-Bromofluorobenzene	98.2		70-130 %REC	1		7/17/2012 02:37 AM
MERCURY-SW7470A			SW7470			Analyst: JCJ
Mercury	0.000201		0.000200 mg/L	1	7/17/2012	7/17/2012 04:20 PM
METALS			SW6020			Analyst: SKS
Arsenic	0.0663		0.00500 mg/L	1	7/19/2012	7/23/2012 09:31 AM
Barium	4.14		0.0500 mg/L	10	7/19/2012	7/23/2012 09:41 AM
Cadmium	0.00428		0.00200 mg/L	1	7/19/2012	7/23/2012 09:31 AM
Chromium	0.311		0.00500 mg/L	1	7/19/2012	7/23/2012 09:31 AM
Lead	0.275		0.00500 mg/L	1	7/19/2012	7/23/2012 09:31 AM
Selenium	0.0171		0.00500 mg/L	1	7/19/2012	7/23/2012 09:31 AM
Silver	0.00137	J	0.00500 mg/L	1	7/19/2012	7/23/2012 09:31 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0 μg/L	1		7/17/2012 03:42 AM
Ethylbenzene	U		5.0 μg/L	1		7/17/2012 03:42 AM
Toluene	U		5.0 μg/L	1		7/17/2012 03:42 AM
Xylenes, Total	U		15 μg/L	1		7/17/2012 03:42 AM
Surr: 1,2-Dichloroethane-d4	103		70-125 %REC	1		7/17/2012 03:42 AM
Surr: 4-Bromofluorobenzene	100		72-125 %REC	1		7/17/2012 03:42 AM
Surr: Dibromofluoromethane	102		71-125 %REC	1		7/17/2012 03:42 AM
Surr: Toluene-d8	97.9		75-125 %REC	1		7/17/2012 03:42 AM
OIL AND GREASE			E1664			Analyst: TDW
Oil and Grease	0.682	J	2.00 mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500H+ B			Analyst: EDG
рН	7.04	Н	0.100 pH Uni	ts 1		7/18/2012 10:00 AM
Temp Deg C @pH	23.0	Н	°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	5,510		2.00 mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 2 **Lab ID:** 1207528-02

Collection Date: 7/10/2012 11:00 AM Matrix: GROUNDWATER

**Date:** 24-Jul-12

Analyses	Result	Qual	Report Limit U	J <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015	5M			Analyst: <b>KMB</b>
TPH (Diesel Range)	3.4		0.049	mg/L	1	7/17/2012	7/17/2012 04:31 PM
TPH (Oil Range)	4.3		0.098	mg/L	1	7/17/2012	7/17/2012 04:31 PM
Surr: 2-Fluorobiphenyl	85.5		60-135	%REC	1	7/17/2012	7/17/2012 04:31 PM
GASOLINE RANGE ORGANICS - SW	8015C		SW8015	5			Analyst: KKP
Gasoline Range Organics	U		0.0500	mg/L	1		7/17/2012 02:55 AM
Surr: 4-Bromofluorobenzene	85.2		70-130	%REC	1		7/17/2012 02:55 AM
MERCURY-SW7470A			SW7470	)			Analyst: JCJ
Mercury	U		0.000200	mg/L	1	7/17/2012	7/17/2012 04:22 PM
METALS			SW6020	)			Analyst: SKS
Arsenic	0.00516		0.00500	mg/L	1	7/19/2012	7/23/2012 09:33 AM
Barium	0.338		0.00500	mg/L	1	7/19/2012	7/23/2012 09:33 AM
Cadmium	U		0.00200	mg/L	1	7/19/2012	7/23/2012 09:33 AM
Chromium	0.0225		0.00500	mg/L	1	7/19/2012	7/23/2012 09:33 AM
Lead	0.0181		0.00500	mg/L	1	7/19/2012	7/23/2012 09:33 AM
Selenium	0.0132		0.00500	mg/L	1	7/19/2012	7/23/2012 09:33 AM
Silver	U		0.00500	mg/L	1	7/19/2012	7/23/2012 09:33 AM
VOLATILES			SW8260	)			Analyst: PC
Benzene	U		5.0	μg/L	1		7/17/2012 04:09 AM
Ethylbenzene	U		5.0	μg/L	1		7/17/2012 04:09 AM
Toluene	U		5.0	μg/L	1		7/17/2012 04:09 AM
Xylenes, Total	U		15	μg/L	1		7/17/2012 04:09 AM
Surr: 1,2-Dichloroethane-d4	103		70-125	%REC	1		7/17/2012 04:09 AM
Surr: 4-Bromofluorobenzene	100		72-125	%REC	1		7/17/2012 04:09 AM
Surr: Dibromofluoromethane	101		71-125	%REC	1		7/17/2012 04:09 AM
Surr: Toluene-d8	96.1		75-125	%REC	1		7/17/2012 04:09 AM
OIL AND GREASE			E1664				Analyst: TDW
Oil and Grease	2.20		2.00	mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500	H+ B			Analyst: EDG
рН	6.86	Н	0.100	pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.4	Н		°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D	)			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	9,590		2.00	mg/L	1		7/17/2012 08:00 AM

Client: Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 3 **Lab ID:** 1207528-03

Collection Date: 7/10/2012 11:25 AM Matrix: GROUNDWATER

**Date:** 24-Jul-12

Analyses	Result	Qual	Report Limit Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015M			Analyst: <b>KMB</b>
TPH (Diesel Range)	18		0.49 mg/L	10	7/17/2012	7/18/2012 06:03 PM
TPH (Oil Range)	26		0.97 mg/L	10	7/17/2012	7/18/2012 06:03 PM
Surr: 2-Fluorobiphenyl	0	S	60-135 %REC	10	7/17/2012	7/18/2012 06:03 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW8015			Analyst: KKP
Gasoline Range Organics	U		0.0500 mg/L	1		7/17/2012 03:13 AM
Surr: 4-Bromofluorobenzene	105		70-130 %REC	1		7/17/2012 03:13 AM
MERCURY-SW7470A			SW7470			Analyst: JCJ
Mercury	0.000109	J	0.000200 mg/L	1	7/17/2012	7/17/2012 04:24 PM
METALS			SW6020			Analyst: SKS
Arsenic	0.0230		0.00500 mg/L	1	7/19/2012	7/23/2012 09:36 AM
Barium	1.53		0.00500 mg/L	1	7/19/2012	7/23/2012 09:36 AM
Cadmium	0.00149	J	0.00200 mg/L	1	7/19/2012	7/23/2012 09:36 AM
Chromium	0.140		0.00500 mg/L	1	7/19/2012	7/23/2012 09:36 AM
Lead	0.105		0.00500 mg/L	1	7/19/2012	7/23/2012 09:36 AM
Selenium	0.0453		0.00500 mg/L	1	7/19/2012	7/23/2012 09:36 AM
Silver	U		0.00500 mg/L	1	7/19/2012	7/23/2012 09:36 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0 μg/L	1		7/17/2012 04:35 AM
Ethylbenzene	U		5.0 μg/L	1		7/17/2012 04:35 AM
Toluene	U		5.0 μg/L	1		7/17/2012 04:35 AM
Xylenes, Total	U		15 μg/L	1		7/17/2012 04:35 AM
Surr: 1,2-Dichloroethane-d4	102		70-125 %REC	1		7/17/2012 04:35 AM
Surr: 4-Bromofluorobenzene	98.7		72-125 %REC	1		7/17/2012 04:35 AM
Surr: Dibromofluoromethane	101		71-125 %REC	1		7/17/2012 04:35 AM
Surr: Toluene-d8	97.0		75-125 %REC	1		7/17/2012 04:35 AM
OIL AND GREASE			E1664			Analyst: <b>TDW</b>
Oil and Grease	0.667	J	2.00 mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500H+ B			Analyst: <b>EDG</b>
рН	6.93	Н	0.100 pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.4	Н	°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	11,400		2.00 mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 4 **Lab ID:** 1207528-04

Collection Date: 7/10/2012 11:55 AM Matrix: GROUNDWATER

**Date:** 24-Jul-12

Analyses	Result	Qual	Report Limit Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015M			Analyst: <b>KMB</b>
TPH (Diesel Range)	4.0		0.047 mg/L	1	7/17/2012	7/17/2012 05:16 PM
TPH (Oil Range)	5.6		0.094 mg/L	1	7/17/2012	7/17/2012 05:16 PM
Surr: 2-Fluorobiphenyl	62.6		60-135 %REC	1	7/17/2012	7/17/2012 05:16 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW8015			Analyst: KKP
Gasoline Range Organics	U		0.0500 mg/L	1		7/17/2012 03:31 AM
Surr: 4-Bromofluorobenzene	97.3		70-130 %REC	1		7/17/2012 03:31 AM
MERCURY-SW7470A			SW7470			Analyst: <b>JCJ</b>
Mercury	0.0000730	J	0.000200 mg/L	1	7/17/2012	7/17/2012 04:26 PM
METALS			SW6020			Analyst: SKS
Arsenic	0.0298		0.00500 mg/L	1	7/19/2012	7/23/2012 09:39 AM
Barium	1.56		0.00500 mg/L	1	7/19/2012	7/23/2012 09:39 AM
Cadmium	0.00171	J	0.00200 mg/L	1	7/19/2012	7/23/2012 09:39 AM
Chromium	0.127		0.00500 mg/L	1	7/19/2012	7/23/2012 09:39 AM
Lead	0.0988		0.00500 mg/L	1	7/19/2012	7/23/2012 09:39 AM
Selenium	0.0418		0.00500 mg/L	1	7/19/2012	7/23/2012 09:39 AM
Silver	U		0.00500 mg/L	1	7/19/2012	7/23/2012 09:39 AM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0 μg/L	1		7/17/2012 05:02 AM
Ethylbenzene	U		5.0 μg/L	1		7/17/2012 05:02 AM
Toluene	U		5.0 μg/L	1		7/17/2012 05:02 AM
Xylenes, Total	U		15 µg/L	1		7/17/2012 05:02 AM
Surr: 1,2-Dichloroethane-d4	103		70-125 %REC	1		7/17/2012 05:02 AM
Surr: 4-Bromofluorobenzene	97.8		72-125 %REC	1		7/17/2012 05:02 AM
Surr: Dibromofluoromethane	100		71-125 %REC	1		7/17/2012 05:02 AM
Surr: Toluene-d8	95.5		75-125 %REC	1		7/17/2012 05:02 AM
OIL AND GREASE			E1664			Analyst: <b>TDW</b>
Oil and Grease	0.889	J	2.00 mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500H+ B			Analyst: <b>EDG</b>
рН	7.18	Н	0.100 pH Uni	ts 1		7/18/2012 10:00 AM
Temp Deg C @pH	23.6	Н	°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	1,530		2.00 mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 5 **Lab ID:** 1207528-05

Collection Date: 7/10/2012 12:30 AM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit U	nits	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015	M			Analyst: <b>KMB</b>
TPH (Diesel Range)	0.14		0.047	mg/L	1	7/17/2012	7/17/2012 05:38 PM
TPH (Oil Range)	0.21		0.093	mg/L	1	7/17/2012	7/17/2012 05:38 PM
Surr: 2-Fluorobiphenyl	60.2		60-135	%REC	1	7/17/2012	7/17/2012 05:38 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW8015				Analyst: KKP
Gasoline Range Organics	U		0.0500	mg/L	1		7/17/2012 03:48 AM
Surr: 4-Bromofluorobenzene	111		70-130	%REC	1		7/17/2012 03:48 AM
MERCURY-SW7470A			SW7470				Analyst: JCJ
Mercury	0.000188	J	0.000200	mg/L	1	7/17/2012	7/17/2012 04:28 PM
METALS			SW6020				Analyst: ALR
Arsenic	0.0479		0.00500	mg/L	1	7/19/2012	7/23/2012 04:11 PM
Barium	5.24		0.0250	mg/L	5	7/19/2012	7/20/2012 05:41 AM
Cadmium	0.00966		0.00200	mg/L	1	7/19/2012	7/23/2012 04:11 PM
Chromium	0.524		0.0250	mg/L	5	7/19/2012	7/20/2012 05:41 AM
Lead	0.459		0.0250	mg/L	5	7/19/2012	7/20/2012 05:41 AM
Selenium	0.0919		0.00500	mg/L	1	7/19/2012	7/23/2012 04:11 PM
Silver	0.00968		0.00500	mg/L	1	7/19/2012	7/23/2012 04:11 PM
VOLATILES			SW8260				Analyst: PC
Benzene	U		5.0	μg/L	1		7/17/2012 05:28 AM
Ethylbenzene	U		5.0	μg/L	1		7/17/2012 05:28 AM
Toluene	U		5.0	μg/L	1		7/17/2012 05:28 AM
Xylenes, Total	U		15	μg/L	1		7/17/2012 05:28 AM
Surr: 1,2-Dichloroethane-d4	104		70-125	%REC	1		7/17/2012 05:28 AM
Surr: 4-Bromofluorobenzene	98.3		72-125	%REC	1		7/17/2012 05:28 AM
Surr: Dibromofluoromethane	98.7		71-125	%REC	1		7/17/2012 05:28 AM
Surr: Toluene-d8	98.8		75-125	%REC	1		7/17/2012 05:28 AM
OIL AND GREASE			E1664				Analyst: <b>TDW</b>
Oil and Grease	U		2.00	mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500H				Analyst: <b>EDG</b>
pH	6.94	Н	0.100	pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.0	Н		°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D				Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	29,100		2.00	mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 6 **Lab ID:** 1207528-06

Collection Date: 7/10/2012 01:00 PM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit U	J <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015	5M			Analyst: <b>KMB</b>
TPH (Diesel Range)	0.75		0.053	mg/L	1	7/17/2012	7/17/2012 06:00 PM
TPH (Oil Range)	0.98		0.11	mg/L	1	7/17/2012	7/17/2012 06:00 PM
Surr: 2-Fluorobiphenyl	118		60-135	%REC	1	7/17/2012	7/17/2012 06:00 PM
GASOLINE RANGE ORGANICS - SW	8015C		SW8015	5			Analyst: KKP
Gasoline Range Organics	U		0.0500	mg/L	1		7/17/2012 04:06 AM
Surr: 4-Bromofluorobenzene	94.9		70-130	%REC	1		7/17/2012 04:06 AM
MERCURY-SW7470A			SW7470	)			Analyst: <b>JCJ</b>
Mercury	0.000454		0.000200	mg/L	1	7/17/2012	7/17/2012 04:30 PM
METALS			SW6020	)			Analyst: ALR
Arsenic	0.0666		0.00500	mg/L	1	7/19/2012	7/23/2012 04:15 PM
Barium	6.84		0.0250	mg/L	5	7/19/2012	7/20/2012 05:46 AM
Cadmium	0.00539		0.00200	mg/L	1	7/19/2012	7/23/2012 04:15 PM
Chromium	0.420		0.0250	mg/L	5	7/19/2012	7/20/2012 05:46 AM
Lead	0.387		0.0250	mg/L	5	7/19/2012	7/20/2012 05:46 AM
Selenium	0.0870		0.00500	mg/L	1	7/19/2012	7/23/2012 04:15 PM
Silver	0.0142		0.00500	mg/L	1	7/19/2012	7/23/2012 04:15 PM
VOLATILES			SW8260	)			Analyst: PC
Benzene	U		5.0	μg/L	1		7/17/2012 05:55 AM
Ethylbenzene	U		5.0	μg/L	1		7/17/2012 05:55 AM
Toluene	U		5.0	μg/L	1		7/17/2012 05:55 AM
Xylenes, Total	U		15	μg/L	1		7/17/2012 05:55 AM
Surr: 1,2-Dichloroethane-d4	99.8		70-125	%REC	1		7/17/2012 05:55 AM
Surr: 4-Bromofluorobenzene	96.7		72-125	%REC	1		7/17/2012 05:55 AM
Surr: Dibromofluoromethane	100		71-125	%REC	1		7/17/2012 05:55 AM
Surr: Toluene-d8	96.5		75-125	%REC	1		7/17/2012 05:55 AM
OIL AND GREASE			E1664				Analyst: TDW
Oil and Grease	U		2.00	mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500	H+ B			Analyst: <b>EDG</b>
рН	6.64	Н	0.100	pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.3	Н		°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D	)			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	26,600		2.00	mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 7 **Lab ID:** 1207528-07

Collection Date: 7/10/2012 02:00 PM Matrix: GROUNDWATER

**Date:** 24-Jul-12

Analyses	Result	Qual	Report Limit Un	nits	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015M	1			Analyst: <b>KMB</b>
TPH (Diesel Range)	1.6		0.048 m	ng/L	1	7/17/2012	7/17/2012 06:22 PM
TPH (Oil Range)	2.2		0.097 m	ng/L	1	7/17/2012	7/17/2012 06:22 PM
Surr: 2-Fluorobiphenyl	87.9		60-135 %	6REC	1	7/17/2012	7/17/2012 06:22 PM
GASOLINE RANGE ORGANICS - SW	8015C		SW8015				Analyst: KKP
Gasoline Range Organics	U		0.0500 m	ng/L	1		7/17/2012 04:42 AM
Surr: 4-Bromofluorobenzene	98.3		70-130 %	6REC	1		7/17/2012 04:42 AM
MERCURY-SW7470A			SW7470				Analyst: JCJ
Mercury	U		0.000200 m	ng/L	1	7/17/2012	7/17/2012 04:33 PM
METALS			SW6020				Analyst: ALR
Arsenic	0.00265	J	0.00500 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
Barium	0.157		0.00500 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
Cadmium	U		0.00200 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
Chromium	0.0124		0.00500 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
Lead	0.00949		0.00500 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
Selenium	0.0692		0.00500 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
Silver	U		0.00500 m	ng/L	1	7/19/2012	7/23/2012 04:19 PM
VOLATILES			SW8260				Analyst: PC
Benzene	U		5.0 μ	g/L	1		7/17/2012 06:22 AM
Ethylbenzene	U		5.0 μ	g/L	1		7/17/2012 06:22 AM
Toluene	U		5.0 μ	g/L	1		7/17/2012 06:22 AM
Xylenes, Total	U		15 μ	g/L	1		7/17/2012 06:22 AM
Surr: 1,2-Dichloroethane-d4	107		70-125 %	6REC	1		7/17/2012 06:22 AM
Surr: 4-Bromofluorobenzene	97.0		72-125 %	6REC	1		7/17/2012 06:22 AM
Surr: Dibromofluoromethane	101		71-125 %	6REC	1		7/17/2012 06:22 AM
Surr: Toluene-d8	95.8		75-125 %	6REC	1		7/17/2012 06:22 AM
OIL AND GREASE			E1664				Analyst: <b>TDW</b>
Oil and Grease	1.30	J	2.00 m	ng/L	1		7/20/2012 03:00 PM
PH - SM4500H+ B			SM4500H-	+ B			Analyst: <b>EDG</b>
рН	6.96	Н	0.100 p	H Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.3	Н	°(	C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D				Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	3,740		2.00 m	ng/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 8 **Lab ID:** 1207528-08

Collection Date: 7/10/2012 02:30 PM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW801	5M			Analyst: <b>KMB</b>
TPH (Diesel Range)	0.049		0.047	mg/L	1	7/17/2012	7/17/2012 06:44 PM
TPH (Oil Range)	U		0.094	l mg/L	1	7/17/2012	7/17/2012 06:44 PM
Surr: 2-Fluorobiphenyl	113		60-135	5 %REC	1	7/17/2012	7/17/2012 06:44 PM
GASOLINE RANGE ORGANICS - SW	8015C		SW801	5			Analyst: KKP
Gasoline Range Organics	U		0.0500	) mg/L	1		7/17/2012 04:59 AM
Surr: 4-Bromofluorobenzene	92.7		70-130	%REC	1		7/17/2012 04:59 AM
MERCURY-SW7470A			SW747	0			Analyst: JCJ
Mercury	U		0.000200	) mg/L	1	7/17/2012	7/17/2012 04:34 PM
METALS			SW602	0			Analyst: ALR
Arsenic	0.00594		0.00500	mg/L	1	7/19/2012	7/23/2012 04:24 PM
Barium	0.304		0.00500	) mg/L	1	7/19/2012	7/23/2012 04:24 PM
Cadmium	U		0.00200	) mg/L	1	7/19/2012	7/23/2012 04:24 PM
Chromium	0.0271		0.00500	) mg/L	1	7/19/2012	7/23/2012 04:24 PM
Lead	0.0240		0.00500	) mg/L	1	7/19/2012	7/23/2012 04:24 PM
Selenium	0.0423		0.00500	) mg/L	1	7/19/2012	7/23/2012 04:24 PM
Silver	U		0.00500	) mg/L	1	7/19/2012	7/23/2012 04:24 PM
VOLATILES			SW826	0			Analyst: PC
Benzene	U		5.0	) μg/L	1		7/17/2012 06:48 AM
Ethylbenzene	U		5.0	) μg/L	1		7/17/2012 06:48 AM
Toluene	U		5.0	) μg/L	1		7/17/2012 06:48 AM
Xylenes, Total	U		15	5 μg/L	1		7/17/2012 06:48 AM
Surr: 1,2-Dichloroethane-d4	103		70-125	5 %REC	1		7/17/2012 06:48 AM
Surr: 4-Bromofluorobenzene	98.6		72-125	%REC	1		7/17/2012 06:48 AM
Surr: Dibromofluoromethane	99.3		71-125	%REC	1		7/17/2012 06:48 AM
Surr: Toluene-d8	96.8		75-128	5 %REC	1		7/17/2012 06:48 AM
OIL AND GREASE			E1664				Analyst: <b>TDW</b>
Oil and Grease	1.60	J	2.00	) mg/L	1		7/20/2012 03:00 PM
PH - SM4500H+ B			SM450	0H+ B			Analyst: <b>EDG</b>
pH	8.09	Н	0.100	pH Units	1		7/19/2012 09:00 AM
Temp Deg C @pH	22.4	Н		°C	1		7/19/2012 09:00 AM
TOTAL SUSPENDED SOLIDS			M2540I	D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	3,290		2.00	) mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 9 **Lab ID:** 1207528-09

Collection Date: 7/10/2012 02:50 PM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit U	J <b>nits</b>	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015	M			Analyst: <b>KMB</b>
TPH (Diesel Range)	0.68		0.048	mg/L	1	7/17/2012	7/17/2012 07:06 PM
TPH (Oil Range)	0.96		0.097	mg/L	1	7/17/2012	7/17/2012 07:06 PM
Surr: 2-Fluorobiphenyl	67.2		60-135	%REC	1	7/17/2012	7/17/2012 07:06 PM
GASOLINE RANGE ORGANICS - SW	8015C		SW8015	;			Analyst: KKP
Gasoline Range Organics	U		0.0500	mg/L	1		7/17/2012 05:17 AM
Surr: 4-Bromofluorobenzene	106		70-130	%REC	1		7/17/2012 05:17 AM
MERCURY-SW7470A			SW7470	)			Analyst: JCJ
Mercury	U		0.000200	mg/L	1	7/17/2012	7/17/2012 04:40 PM
METALS			SW6020	)			Analyst: ALR
Arsenic	0.00167	J	0.00500	mg/L	1	7/19/2012	7/23/2012 04:36 PM
Barium	0.0640		0.00500	mg/L	1	7/19/2012	7/23/2012 04:36 PM
Cadmium	U		0.00200	mg/L	1	7/19/2012	7/23/2012 04:36 PM
Chromium	0.00324	J	0.00500	mg/L	1	7/19/2012	7/23/2012 04:36 PM
Lead	0.00286	J	0.00500	mg/L	1	7/19/2012	7/23/2012 04:36 PM
Selenium	0.00859		0.00500	mg/L	1	7/19/2012	7/23/2012 04:36 PM
Silver	U		0.00500	mg/L	1	7/19/2012	7/23/2012 04:36 PM
VOLATILES			SW8260	)			Analyst: PC
Benzene	U		5.0	μg/L	1		7/17/2012 07:15 AM
Ethylbenzene	U		5.0	μg/L	1		7/17/2012 07:15 AM
Toluene	U		5.0	μg/L	1		7/17/2012 07:15 AM
Xylenes, Total	U		15	μg/L	1		7/17/2012 07:15 AM
Surr: 1,2-Dichloroethane-d4	100		70-125	%REC	1		7/17/2012 07:15 AM
Surr: 4-Bromofluorobenzene	95.7		72-125	%REC	1		7/17/2012 07:15 AM
Surr: Dibromofluoromethane	97.5		71-125	%REC	1		7/17/2012 07:15 AM
Surr: Toluene-d8	97.0		75-125	%REC	1		7/17/2012 07:15 AM
OIL AND GREASE			E1664				Analyst: <b>TDW</b>
Oil and Grease	U		2.00	mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500	H+ B			Analyst: <b>EDG</b>
рН	7.36	Н	0.100	pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	22.6	Н		°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D	1			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	5,830		2.00	mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 10 **Lab ID:** 1207528-10

Collection Date: 7/10/2012 03:20 PM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015M			Analyst: <b>KMB</b>
TPH (Diesel Range)	5.9		0.46 mg/L	10	7/17/2012	7/18/2012 06:26 PM
TPH (Oil Range)	8.4		0.93 mg/L	10	7/17/2012	7/18/2012 06:26 PM
Surr: 2-Fluorobiphenyl	0	S	60-135 %REC	10	7/17/2012	7/18/2012 06:26 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW8015			Analyst: KKP
Gasoline Range Organics	U		0.0500 mg/L	1		7/17/2012 05:35 AM
Surr: 4-Bromofluorobenzene	99.4		70-130 %REC	1		7/17/2012 05:35 AM
MERCURY-SW7470A			SW7470			Analyst: JCJ
Mercury	0.000179	J	0.000200 mg/L	1	7/17/2012	7/17/2012 04:42 PM
METALS			SW6020			Analyst: ALR
Arsenic	0.0591		0.00500 mg/L	1	7/19/2012	7/23/2012 04:41 PM
Barium	2.97		0.0250 mg/L	5	7/19/2012	7/20/2012 06:20 AM
Cadmium	0.00382		0.00200 mg/L	1	7/19/2012	7/23/2012 04:41 PM
Chromium	0.200		0.00500 mg/L	1	7/19/2012	7/23/2012 04:41 PM
Lead	0.229		0.00500 mg/L	1	7/19/2012	7/23/2012 04:41 PM
Selenium	0.0444		0.00500 mg/L	1	7/19/2012	7/23/2012 04:41 PM
Silver	0.00145	J	0.00500 mg/L	1	7/19/2012	7/23/2012 04:41 PM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0 μg/L	1		7/17/2012 07:41 AM
Ethylbenzene	U		5.0 μg/L	1		7/17/2012 07:41 AM
Toluene	U		5.0 μg/L	1		7/17/2012 07:41 AM
Xylenes, Total	U		15 μg/L	1		7/17/2012 07:41 AM
Surr: 1,2-Dichloroethane-d4	105		70-125 %REC	1		7/17/2012 07:41 AM
Surr: 4-Bromofluorobenzene	102		72-125 %REC	1		7/17/2012 07:41 AM
Surr: Dibromofluoromethane	99.4		71-125 %REC	1		7/17/2012 07:41 AM
Surr: Toluene-d8	96.7		75-125 %REC	1		7/17/2012 07:41 AM
OIL AND GREASE			E1664			Analyst: <b>TDW</b>
Oil and Grease	U		2.00 mg/L	1		7/20/2012 08:00 AM
PH - SM4500H+ B			SM4500H+ B			Analyst: <b>EDG</b>
рН	7.13	Н	0.100 pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.4	Н	°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	8,430		2.00 mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 11 **Lab ID:** 1207528-11

Collection Date: 7/10/2012 03:50 PM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW80	15M			Analyst: <b>KMB</b>
TPH (Diesel Range)	4.2		0.4	7 mg/L	10	7/17/2012	7/18/2012 06:48 PM
TPH (Oil Range)	6.2		0.9	4 mg/L	10	7/17/2012	7/18/2012 06:48 PM
Surr: 2-Fluorobiphenyl	0	S	60-13	85 %REC	10	7/17/2012	7/18/2012 06:48 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW80	15			Analyst: KKP
Gasoline Range Organics	1.09		0.050	0 mg/L	1		7/19/2012 04:02 PM
Surr: 4-Bromofluorobenzene	113		70-13	80 %REC	1		7/19/2012 04:02 PM
MERCURY-SW7470A			SW74	70			Analyst: JCJ
Mercury	0.0000560	J	0.00020	0 mg/L	1	7/17/2012	7/17/2012 04:44 PM
METALS			SW60	20			Analyst: ALR
Arsenic	0.0199		0.0050	0 mg/L	1	7/19/2012	7/23/2012 04:45 PM
Barium	0.930		0.025	0 mg/L	5	7/19/2012	7/20/2012 06:25 AM
Cadmium	0.000944	J	0.0020	0 mg/L	1	7/19/2012	7/23/2012 04:45 PM
Chromium	0.0861		0.0050	0 mg/L	1	7/19/2012	7/23/2012 04:45 PM
Lead	0.0667		0.0050	0 mg/L	1	7/19/2012	7/23/2012 04:45 PM
Selenium	0.0170			0 mg/L	1	7/19/2012	7/23/2012 04:45 PM
Silver	U		0.0050	0 mg/L	1	7/19/2012	7/23/2012 04:45 PM
VOLATILES			SW82	60			Analyst: PC
Benzene	200			0 μg/L	1		7/17/2012 08:08 AM
Ethylbenzene	8.3		5.	0 μg/L	1		7/17/2012 08:08 AM
Toluene	11		5.	0 μg/L	1		7/17/2012 08:08 AM
Xylenes, Total	84		1	5 μg/L	1		7/17/2012 08:08 AM
Surr: 1,2-Dichloroethane-d4	94.6		70-12	25 %REC	1		7/17/2012 08:08 AM
Surr: 4-Bromofluorobenzene	101		72-12	25 %REC	1		7/17/2012 08:08 AM
Surr: Dibromofluoromethane	94.6		71-12	25 %REC	1		7/17/2012 08:08 AM
Surr: Toluene-d8	101		75-12	25 %REC	1		7/17/2012 08:08 AM
PH - SM4500H+ B				00H+ B			Analyst: EDG
рН	6.99	Н	0.10	0 pH Units	1		7/18/2012 10:00 AM
Temp Deg C @pH	23.5	Н		°C	1		7/18/2012 10:00 AM
TOTAL SUSPENDED SOLIDS			M2540	D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	12,600		2.0	0 mg/L	1		7/17/2012 08:00 AM

**Client:** Olsson Associates

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 **Work Order:** 1207528

**Sample ID:** MH 12 **Lab ID:** 1207528-12

Collection Date: 7/10/2012 04:20 PM Matrix: GROUNDWATER

Analyses	Result	Qual	Report Limit Units	Dilution Factor	Date Prep	Date Analyzed
TPH DRO/ORO			SW8015M			Analyst: <b>KMB</b>
TPH (Diesel Range)	4.7		0.53 mg/L	10	7/17/2012	7/18/2012 07:10 PM
TPH (Oil Range)	6.9		1.1 mg/L	10	7/17/2012	7/18/2012 07:10 PM
Surr: 2-Fluorobiphenyl	0	S	60-135 %REC	10	7/17/2012	7/18/2012 07:10 PM
GASOLINE RANGE ORGANICS - SW	/8015C		SW8015			Analyst: KKP
Gasoline Range Organics	U		0.0500 mg/L	1		7/19/2012 04:20 PM
Surr: 4-Bromofluorobenzene	111		70-130 %REC	1		7/19/2012 04:20 PM
MERCURY-SW7470A			SW7470			Analyst: JCJ
Mercury	0.000323		0.000200 mg/L	1	7/17/2012	7/17/2012 04:46 PM
METALS			SW6020			Analyst: ALR
Arsenic	0.127		0.00500 mg/L	1	7/19/2012	7/23/2012 04:49 PM
Barium	7.12		0.0250 mg/L	5	7/19/2012	7/20/2012 06:29 AM
Cadmium	0.00251		0.00200 mg/L	1	7/19/2012	7/23/2012 04:49 PM
Chromium	0.317		0.0250 mg/L	5	7/19/2012	7/20/2012 06:29 AM
Lead	0.489		0.0250 mg/L	5	7/19/2012	7/20/2012 06:29 AM
Selenium	0.0729		0.00500 mg/L	1	7/19/2012	7/23/2012 04:49 PM
Silver	0.0107		0.00500 mg/L	1	7/19/2012	7/23/2012 04:49 PM
VOLATILES			SW8260			Analyst: PC
Benzene	U		5.0 μg/L	1		7/17/2012 08:35 AM
Ethylbenzene	U		5.0 μg/L	1		7/17/2012 08:35 AM
Toluene	U		5.0 μg/L	1		7/17/2012 08:35 AM
Xylenes, Total	U		15 μg/L	1		7/17/2012 08:35 AM
Surr: 1,2-Dichloroethane-d4	97.9		70-125 %REC	1		7/17/2012 08:35 AM
Surr: 4-Bromofluorobenzene	98.4		72-125 %REC	1		7/17/2012 08:35 AM
Surr: Dibromofluoromethane	95.3		71-125 %REC	1		7/17/2012 08:35 AM
Surr: Toluene-d8	95.1		75-125 %REC	1		7/17/2012 08:35 AM
OIL AND GREASE			E1664			Analyst: <b>TDW</b>
Oil and Grease	U		2.00 mg/L	1		7/20/2012 03:00 PM
PH - SM4500H+ B			SM4500H+ B			Analyst: <b>EDG</b>
pH	6.44	Н	0.100 pH Units	1		7/19/2012 09:00 AM
Temp Deg C @pH	22.9	Н	°C	1		7/19/2012 09:00 AM
TOTAL SUSPENDED SOLIDS			M2540D			Analyst: IAB
Suspended Solids (Residue, Non- Filterable)	26,200		2.00 mg/L	1		7/17/2012 08:00 AM

#### **ALS** Environmental

Date: 24-Jul-12

Client: Olsson Associates

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

### QC BATCH REPORT

Batch ID: <b>62677</b>	Instrument ID FID-16		Method	d: SW801	5M						
MBLK Sample ID:	LBLKW1-120716-62677				L	Jnits: <b>mg/</b> I	L	Analys	is Date: <b>7/</b>	17/2012 0	3:03 PM
Client ID:	Run II	D: <b>FID-1</b> 6	5_120717A		Se	qNo: <b>286</b> 6	893	Prep Date: <b>7/17</b>	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	U	0.050									
TPH (Oil Range)	U	0.10									
Surr: 2-Fluorobiphenyl	0.06609	0.0050	0.06061		0	109	60-135	0			
LCS Sample ID:	LLCSW1-120716-62677				L	Jnits: <b>mg/</b> l	L	Analys	is Date: <b>7/</b>	17/2012 0	3:25 PN
Client ID:	Run II	n ID: <b>FID-16_120717A</b>			SeqNo: <b>2866894</b>		894	Prep Date: <b>7/17/2012</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	0.701	0.050	0.6061		0	116	70-130	0			
TPH (Oil Range)	0.6255	0.10			0	103	70-130	0			
Surr: 2-Fluorobiphenyl	0.07464	0.0050	0.06061		0	123	60-135	0			
LCSD Sample ID:	LLCSDW1-120716-62677				L	Jnits: <b>mg/</b> l	L_	Analys	is Date: <b>7/</b>	17/2012 0	3:47 PN
Client ID:	Run II	D: <b>FID-1</b> 6	5_120717A		Se	qNo: <b>286</b> 6	895	Prep Date: <b>7/17</b>	/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	0.7547	0.050	0.6061		0	125	70-130	0.701	7.38	20	
TPH (Oil Range)	0.6934	0.10	0.6061		0	114	70-130	0.6255	10.3	20	
Surr: 2-Fluorobiphenyl	0.07106	0.0050	0.06061		0	117	60-135	0.07464	4.91	20	
The following samples	were analyzed in this batch:	1	207528-01C 207528-04C 207528-07C 207528-10C	12 12	075 075	28-02C 28-05C 28-08C 28-11C	12 12	07528-03C 07528-06C 07528-09C 07528-12C			

See Qualifiers Page for a list of Qualifiers and their explanation.

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Batch ID: R13	1328 Instrumer	nt ID <b>FID-9</b>		Method	d: SW801	5						
MBLK	Sample ID: GBLKW2-1	20716-R131328				L	Jnits: <b>mg/l</b>	-	Analysi	s Date: <b>7/</b>	16/2012 1	0:29 PI
Client ID:		Run ID	): FID-9_1	120716B		Se	qNo: <b>2861</b>	529	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Ran Surr: 4-Broi	ge Organics mofluorobenzene	U 0.1042	0.050 0.0050	0.1		0	104	70-130	0			
LCS	Sample ID: GLCSW2-1	20716-R131328				L	Jnits: <b>mg/l</b>	_	Analys	s Date: <b>7/</b>	16/2012 0	9:35 PI
Client ID:		Run ID	): <b>FID-9</b> _1	120716B		Se	qNo: <b>2861</b>	526	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Ran Surr: 4-Broi	ge Organics mofluorobenzene	1.033 <i>0.1065</i>	0.050 0.0050	1 <i>0.1</i>		0	103 <i>10</i> 6	70-130 <i>70-130</i>	0			
LCSD	Sample ID: GLCSDW2-	120716-R131328				L	Jnits: <b>mg/l</b>	_	Analys	s Date: <b>7/</b>	16/2012 0	9:53 P
Client ID:	·		): <b>FID-9</b> _1	120716B			qNo: <b>2861</b>		Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Ran	ge Organics mofluorobenzene	1.014 <i>0.1124</i>	0.050 0.0050	1 0.1		0	101 112	70-130 <i>70-130</i>	1.033 0.1065	1.85 <i>5.3</i> 8	30 30	
MS	Sample ID: <b>1207528-10</b>	BMS				ι	Jnits: <b>mg/l</b>	_	Analysi	s Date: <b>7/</b>	17/2012 0	5:53 A
Client ID: <b>MH</b>			): <b>FID-9</b> _1	120716B			qNo: <b>2861</b>		Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Gasoline Ran	ge Organics mofluorobenzene	0.9975 <i>0.113</i> 2	0.050 0.0050	1 <i>0.1</i>		0	99.8 113	70-130 <i>70-130</i>	0			
MSD	Sample ID: <b>1207528-10</b>	BMSD				L	Jnits: <b>mg/l</b>	_	Analysi	s Date: 7/	17/2012 0	6:10 A
Client ID: MH	·		): <b>FID-9</b> _1	120716B			qNo: <b>2861</b>		Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Gasoline Ran	ge Organics mofluorobenzene	1.047 <i>0.1198</i>	0.050 0.0050	1 0.1		0	105 120	70-130 <i>70-130</i>	0.9975 0.1132	4.82 5.68	30 30	
	g samples were analyze		12 12 12	207528-01B 207528-04B 207528-07B 207528-10B	12	:075 :075	28-02B 28-05B 28-08B	120 120	07528-03B 07528-06B 07528-09B	0.00		

See Qualifiers Page for a list of Qualifiers and their explanation.

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Batch ID: <b>R131598</b>	Instrument ID FID-9		Metho	d: <b>SW801</b>	5						
MBLK Sample ID	: GBLKW1-120719-R131598				l	Jnits: <b>mg/l</b>	_	Analys	is Date: <b>7/</b>	19/2012 0	3:43 PM
Client ID:	Run	ID: <b>FID-9</b> _	120719A		Se	qNo: <b>2867</b>	939	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organic Surr: 4-Bromofluorobe		0.050 0.0050	0.1		0	97.6	70-130	0			
LCS Sample ID	: GLCSW1-120719-R131598				ι	Jnits: <b>mg/l</b>	_	Analys	is Date: 7/	19/2012 0	2:49 PM
Client ID:	Run	ID: <b>FID-9</b> _	120719A		Se	qNo: <b>2867</b>	937	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organic Surr: 4-Bromofluorobe		0.050 0.0050	1 0.1		0	108 <i>1</i> 23	70-130 <i>70-130</i>	0			
LCSD Sample ID	: GLCSDW1-120719-R13159	8			ı	Jnits: <b>mg/l</b>		Analys	is Date: <b>7/</b>	19/2012 0	3·07 PM
Client ID:		ID: <b>FID-9</b> _	120719A			qNo: <b>2867</b>		Prep Date:	o Dato. 17	DF: 1	0.01
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organic Surr: 4-Bromofluorobe		0.050 0.0050	1 0.1		0	113 110	70-130 <i>70-130</i>	1.083 0.1226		30 30	
	: 12061495-11ZMS				ı	Jnits: <b>mg/l</b>		Analys	is Date: <b>7/</b>	19/2012 0	5·16 PM
Client ID:		ID: <b>FID-9</b> _	120719A			qNo: <b>2867</b>		Prep Date:	o Dato. 17	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organic Surr: 4-Bromofluorobe		0.050 0.0050	1 0.1		0	101 <i>1</i> 29	70-130 <i>70-130</i>	0			
MSD Sample ID	: 12061495-11ZMSD				ı	Jnits: <b>mg/l</b>	_	Analys	is Date: <b>7/</b>	19/2012 0	5:35 PM
Client ID:		ID: <b>FID-9</b> _	120719A			qNo: <b>2867</b>		Prep Date:		DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Gasoline Range Organic Surr: 4-Bromofluorobe		0.050 0.0050	1 <i>0.1</i>		0	105 127	70-130 <i>70-130</i>	1.005 0.1295		30 30	
	were analyzed in this batch		207528-11B	40		28-12B					

See Qualifiers Page for a list of Qualifiers and their explanation.

# QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Batch ID: 62	2681 Instrument ID Mercury		Method	: SW747	0					
MBLK	Sample ID: <b>GBLKW2-071712-62681</b>				Units: mg/	L	Analysis	s Date: <b>7/</b>	17/2012 0	3:50 PN
Client ID:	Ru	n ID: MERC	URY_120717	Ά	SeqNo: <b>286</b> 2	2864	Prep Date: 7/17/	2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								
LCS	Sample ID: <b>GLCSW2-071712-62681</b>				Units: mg/	L	Analysis	s Date: <b>7/</b>	17/2012 0	3:52 PN
Client ID:	Ru	n ID: MERC	URY_120717	Ά.	SeqNo: <b>2862</b>	2865	Prep Date: 7/17/	2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0049	0.00020	0.005		0 98	85-115	0			
MS	Sample ID: <b>1207543-01DMS</b>				Units: mg/	L	Analysis	s Date: <b>7/</b>	17/2012 0	4:01 PI
Client ID:	Ru	n ID: MERC	D: <b>MERCURY_120717A</b> S			SeqNo: <b>2862868</b>		Prep Date: <b>7/17/2012</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00481	0.00020	0.005	0.0000	22 95.8	85-115	0			
MSD	Sample ID: <b>1207543-01DMSD</b>				Units: mg/	L	Analysis	s Date: <b>7/</b>	17/2012 0	4:03 PN
Client ID:	Ru	n ID: MERC	URY_120717	Ά	SeqNo: <b>2862</b>	2869	Prep Date: 7/17/	2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00478	0.00020	0.005	0.0000	22 95.2	85-115	0.00481	0.626	20	
DUP	Sample ID: <b>1207543-01DDUP</b>				Units: mg/	L	Analysis	s Date: <b>7/</b>	17/2012 0	3:59 PN
Client ID:	Ru	n ID: MERC	URY_120717	Ά	SeqNo: <b>286</b> 2	2867	Prep Date: 7/17/	2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020	0		0 0	0-0	0.000022	0	20	
The followi	ng samples were analyzed in this batc	1:	207528-01E 207528-04E 207528-07E 207528-10E	12 12	07528-02E 07528-05E 07528-08E 07528-11E	12 12	07528-03E 07528-06E 07528-09E 07528-12E			

QC BATCH REPORT

**Client:** Olsson Associates

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Batch ID: 62	2758 Instrument ID ICPMS03		Method	SW602	20						
MBLK	Sample ID: MBLKW2-071912-62758				U	Inits: <b>mg/l</b>	L	Analys	is Date: 7	/20/2012 0	2:22 PM
Client ID:	Run	ID: ICPMS	03_120720A		Sec	qNo: <b>2867</b>	722	Prep Date: 7/19	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050									
Barium	U	0.0050									
Cadmium	U	0.0020									
Chromium	U	0.0050									
Lead	U	0.0050									
Selenium	U	0.0050									
Silver	U	0.0050									
LCS	Sample ID: <b>MLCSW2-071912-62758</b>				U	nits: <b>mg/l</b>	L	Analys	is Date: 7	/20/2012 0	2:26 PM
Client ID:	Run	ID: ICPMS	03_120720A		SeqNo: <b>2867723</b>			Prep Date: <b>7/19/2012</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04794	0.0050	0.05		0	95.9	80-120	0			
Barium	0.04758	0.0050	0.05		0	95.2	80-120	0			
Cadmium	0.04725	0.0020	0.05		0	94.5	80-120	0			
Chromium	0.04963	0.0050	0.05		0	99.3	80-120	0			
Lead	0.04651	0.0050	0.05		0	93	80-120	0			
Selenium	0.04941	0.0050	0.05		0	98.8	80-120	0			
Silver	0.04756	0.0050	0.05		0	95.1	80-120	0			
MS	Sample ID: <b>1207518-01CMS</b>				U	nits: <b>mg/l</b>	L	Analys	is Date: 7	/20/2012 0	3:42 PM
Client ID:	Run	ID: ICPMS	03_120720A		Sec	qNo: <b>2867</b>	734	Prep Date: 7/19	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04741	0.0050	0.05	0.000	62	93.6	80-120	0			
Barium	0.2451	0.0050	0.05	0.18		125	80-120	0			S
Cadmium	0.0479	0.0020	0.05	0.00042		94.9	80-120	0			
Chromium	0.04729	0.0050	0.05	0.00022		94.1	80-120	0			
Lead	0.04833	0.0050	0.05	0.0010	01	94.7	80-120	0			
Selenium	0.04697	0.0050	0.05	0.0017	32	90.5	80-120	0			
Silver	0.04934	0.0050	0.05	0.00026	56	98.1	80-120	0			

See Qualifiers Page for a list of Qualifiers and their explanation.

Olsson Associates

Work Order: 1207528

**Client:** 

Barium

Lead

Silver

Note:

Cadmium

Chromium

Selenium

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4 QC BATCH REPORT

Batch ID: 62	2758 Instrument ID ICPM	S03		Method	SW6020	l					
MSD	Sample ID: <b>1207518-01CMSD</b>					Units: mg/	'L	Analysi	s Date: <b>7/</b>	20/2012 0	4:15 PM
Client ID:		Run ID	: ICPMS0	3_120720A		SeqNo: <b>286</b>	7736	Prep Date: <b>7/19</b>	/2012	DF: <b>1</b>	
Analyte	Res	sult	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.048	883	0.0050	0.05	0.00062	2 96.4	80-120	0.04741	2.95	15	
Barium	0.25	512	0.0050	0.05	0.1824	1 138	80-120	0.2451	2.46	15	S
Cadmium	0.049	94	0.0020	0.05	0.0004252	2 99	80-120	0.0479	4.17	15	
Chromium	0.049	002	0.0050	0.05	0.000220	97.6	80-120	0.04729	3.59	15	
Lead	0.050	)46	0.0050	0.05	0.00100	98.9	80-120	0.04833	4.31	15	
Selenium	0.050	16	0.0050	0.05	0.001732	96.9	80-120	0.04697	6.57	15	
Silver	0.051	19	0.0050	0.05	0.0002656	5 102	80-120	0.04934	3.68	15	
DUP	Sample ID: <b>1207518-01CDUP</b>					Units: mg/	'L	Analysi	s Date: <b>7/</b>	20/2012 0	2:43 PM
Client ID:		Run ID	: ICPMS0	3_120720A		SeqNo: <b>286</b>	7729	Prep Date: <b>7/19</b>	/2012	DF: <b>1</b>	
Analyte	Res	sult	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		U	0.0050	0	(	0	0-0	0.00062	0	25	

0

0

0

0

0

The following samples were analyzed in this batch:

U

U

U

0.0050

0.0020

0.0050

0.0050

0.0050

0.0050

0.1845

0.0008646

50	0	0	0	0-0	0.0002656	
1207	528-01E	1207528-	-02E	1207	7528-03E	
1207	529 N/E					

0

0

0

0

0

0-0

0-0

0-0

0-0

0-0

0.1824

0.0004252

0.0002201

0.001001

0.001732

1.14

0

0

0

0

0

25

25

25

25

25

25

0

0

0

0

0

QC BATCH REPORT

**Client:** Olsson Associates

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Batch ID: 62	759 Instrument ID ICPMS03		Method	d: SW602	20						
MBLK	Sample ID: <b>MBLKW3-071912-62759</b>				Ur	nits: <b>mg/l</b>	L	Analy	sis Date: 7	7/20/2012 0	2:58 AN
Client ID:	Ru	n ID: ICPMS(	03_120719 <i>A</i>		Seq	No: <b>286</b> 6	928	Prep Date: 7/1	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050									
Barium	U	0.0050									
Cadmium	U	0.0020									
Chromium	U	0.0050									
Lead	U	0.0050									
Selenium	U	0.0050									
Silver	U	0.0050									
LCS	Sample ID: MLCSW3-071912-62759				Ur	nits: <b>mg/l</b>	L	Analy	sis Date: 7	7/20/2012 0	3:03 AN
Client ID:	Ru	n ID: ICPMS(	03_120719 <i>A</i>		Seq	No: <b>286</b> 6	929	Prep Date: <b>7/1</b>	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04758	0.0050	0.05		0	95.2	80-120	(	)		
Barium	0.04766	0.0050	0.05		0	95.3	80-120	(	)		
Cadmium	0.0477	0.0020	0.05		0	95.4	80-120	(	)		
Chromium	0.04817	0.0050	0.05		0	96.3	80-120	(	)		
Lead	0.04705	0.0050	0.05		0	94.1	80-120	(	)		
Selenium	0.04555	0.0050	0.05		0	91.1	80-120	(	)		
Silver	0.04877	0.0050	0.05		0	97.5	80-120	(	)		
MS	Sample ID: <b>1207654-01CMS</b>				Ur	nits: <b>mg/l</b>	L	Analy	sis Date:	7/20/2012 0	3:20 AN
Client ID:	Ru	n ID: ICPMS(	03_120719 <i>A</i>		Seq	No: <b>286</b> 6	933	Prep Date: <b>7/1</b>	9/2012	DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04759	0.0050	0.05	0.00037	13	94.4	80-120	(	)		
Barium	0.09165	0.0050	0.05	0.049		85.1	80-120	(			
Cadmium	0.04648	0.0020	0.05	0.0000104		92.9	80-120	(			
Chromium	0.04662	0.0050	0.05	0.000063		93.1	80-120	(			
Lead	0.04768	0.0050	0.05	0.000527		94.3	80-120	(			
Selenium	0.04677	0.0050	0.05	-0.00006		93.7	80-120	(			
Silver	0.0464	0.0050	0.05	0.000		92.6	80-120	(			

See Qualifiers Page for a list of Qualifiers and their explanation.

Olsson Associates

Work Order: 1207528

**Client:** 

Note:

US Hwy 6 & Fed. Blvd Bridges Task 4 **Project:** 

QC BATCH REPORT

Batch ID: 62	2759 Instrument	ID ICPMS03		Metho	d: SW6020						
MSD	Sample ID: <b>1207654-010</b>	CMSD				Units: mg/	L	Analys	is Date: <b>7/</b>	20/2012 0	3:25 AM
Client ID:		Run	ID: ICPMS	3_120719 <i>A</i>	. :	SeqNo: <b>286</b> 6	6934	Prep Date: <b>7/19</b>	/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		0.04853	0.0050	0.05	0.0003713	3 96.3	80-120	0.04759	1.96	15	
Barium		0.09302	0.0050	0.05	0.04911	87.8	80-120	0.09165	1.48	15	
Cadmium		0.04701	0.0020	0.05	0.00001045	5 94	80-120	0.04648	1.13	15	
Chromium		0.04707	0.0050	0.05	0.00006316	94	80-120	0.04662	0.961	15	
Lead		0.04658	0.0050	0.05	0.0005274	4 92.1	80-120	0.04768	2.33	15	
Selenium		0.04687	0.0050	0.05	-0.0000616	93.9	80-120	0.04677	0.214	15	
Silver		0.04674	0.0050	0.05	0.00011	1 93.3	80-120	0.0464	0.73	15	

DUP	Sample ID: 1207654-01CDUF	•				ι	Jnits: <b>mg/l</b>	L	Analys	s Date: <b>7/</b>	20/2012 0	3:11 AM
Client ID:		Run	ID: ICPMS0	3_120719	١	Se	qNo: <b>2866</b>	931	Prep Date: <b>7/19</b>	/2012	DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		U	0.0050	0		0	0	0-0	0.0003713	0	25	
Barium		0.0494	0.0050	0		0	0	0-0	0.04911	0.589	25	
Cadmium		U	0.0020	0		0	0	0-0	0.00001045	0	25	
Chromium		U	0.0050	0		0	0	0-0	0.00006316	0	25	
Lead		U	0.0050	0		0	0	0-0	0.0005274	0	25	
Selenium		U	0.0050	0		0	0	0-0	-0.0000616	0	25	
Silver		U	0.0050	0		0	0	0-0	0.00011	0	25	

The following samp	les were analy	yzed in this b	atch:
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1207528-05E	1207528-06E	1207528-07E	
1207528-08E	1207528-09E	1207528-10E	
1207528-11F	1207528-12F		

QC BATCH REPORT

Client: Olsson Associates

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

Batch ID: R131341 Instrument	t ID <b>VOA6</b>		Metho	d: <b>SW826</b>	0						
MBLK Sample ID: VBLKW-071	612-R131341				l	Jnits: µg/L		Anal	ysis Date: <b>7</b>	/17/2012	12:36 AN
Client ID:	Run II	D: <b>VOA6_</b>	120716C		Se	qNo: <b>286</b> 1	1873	Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	5.0									
Ethylbenzene	U	5.0									
Toluene	U	5.0									
Xylenes, Total	U	15									
Surr: 1,2-Dichloroethane-d4	<i>52.14</i>	5.0	50		0	104	70-125		0		
Surr: 4-Bromofluorobenzene	49.83	5.0	50		0	99.7	72-125		0		
Surr: Dibromofluoromethane	51.28	5.0	50		0	103	71-125		0		
Surr: Toluene-d8	48.49	5.0	50		0	97	75-125		0		
LCS Sample ID: VLCSW-071	612-R131341				ι	Jnits: µg/L	_	Anal	ysis Date: <b>7</b>	/16/2012	11:42 PM
Client ID:		D: <b>VOA6_</b>	120716C			qNo: <b>286</b> 1		Prep Date:	,	DF: <b>1</b>	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Benzene	49.22	5.0	50		0	98.4	73-121		0		
Ethylbenzene	43.78	5.0	50		0	87.6	80-120		0		
Toluene	52.09	5.0	50		0	104	80-120		0		
Xylenes, Total	153.4	15	150		0	102	80-120		0		
Surr: 1,2-Dichloroethane-d4	49.53	5.0	50		0	99.1	70-125		0		
Surr: 4-Bromofluorobenzene	53.92	5.0	50		0	108	<i>7</i> 2-125		0		
Surr: Dibromofluoromethane	50.43	5.0	50		0	101	71-125		0		
Surr: Toluene-d8	54.2	5.0	50		0	108	75-125		0		
MS Sample ID: 1207612-03	AMS				L	Jnits: <b>µg/L</b>	-	Anal	ysis Date: <b>7</b>	/17/2012	01:29 AM
Client ID:	Run II	D: <b>VOA6</b> _	120716C		Se	qNo: <b>286</b> 1	1875	Prep Date:		DF: <b>5</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	248.5	25	250		0	99.4	73-121		0		
Ethylbenzene	225.8	25	250		0	90.3	80-120		0		
Toluene	227	25	250		0	90.8	80-120		0		
Xylenes, Total	676.3	75	750		0	90.2	80-120		0		
Surr: 1,2-Dichloroethane-d4	248.2	25	250		0	99.3	70-125		0		
Surr: 4-Bromofluorobenzene	253.5	25	250		0	101	72-125		0		
Surr: Dibromofluoromethane	247.7	25	250		0	99.1	71-125		0		

See Qualifiers Page for a list of Qualifiers and their explanation.

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

QC BATCH REPORT

SPK Ref Control RPD Ref RPD	2 01:56 AM	17/2012 (	s Date: <b>7/</b> 1	Analysis		Jnits: <b>µg/L</b>	U				D	ple ID: <b>1207612-03AM</b>	Sample	MSD
Analyte         Result         PQL         SPK Val         Value         %REC         Limit         Value         %RPD         Limit           Benzene         231.2         25         250         0         92.5         73-121         248.5         7.22           Ethylbenzene         225.1         25         250         0         90         80-120         225.8         0.303           Toluene         222.7         25         250         0         89.1         80-120         227         1.92           Xylenes, Total         670.4         75         750         0         89.4         80-120         676.3         0.871           Surr: 1,2-Dichloroethane-d4         252.6         25         250         0         101         70-125         248.2         1.73           Surr: 4-Bromofluorobenzene         253.2         25         250         0         101         72-125         253.5         0.095	5	DF: <b>5</b>		Prep Date:	876	qNo: <b>2861</b>	Se		120716C	: VOA6_	Run II		it ID:	Client ID:
Ethylbenzene         225.1         25         250         0         90         80-120         225.8         0.303           Toluene         222.7         25         250         0         89.1         80-120         227         1.92           Xylenes, Total         670.4         75         750         0         89.4         80-120         676.3         0.871           Surr: 1,2-Dichloroethane-d4         252.6         25         250         0         101         70-125         248.2         1.73           Surr: 4-Bromofluorobenzene         253.2         25         250         0         101         72-125         253.5         0.095	Qual	RPD Limit	%RPD			%REC		_	SPK Val	PQL	Result		yte	Analyte
Toluene         222.7         25         250         0         89.1         80-120         227         1.92           Xylenes, Total         670.4         75         750         0         89.4         80-120         676.3         0.871           Surr: 1,2-Dichloroethane-d4         252.6         25         250         0         101         70-125         248.2         1.73           Surr: 4-Bromofluorobenzene         253.2         25         250         0         101         72-125         253.5         0.095	20	20	7.22	248.5	73-121	92.5	0		250	25	231.2		ene	Benzene
Xylenes, Total       670.4       75       750       0       89.4       80-120       676.3       0.871         Surr: 1,2-Dichloroethane-d4       252.6       25       250       0       101       70-125       248.2       1.73         Surr: 4-Bromofluorobenzene       253.2       25       250       0       101       72-125       253.5       0.095	20	20	0.303	225.8	80-120	90	0		250	25	225.1		benzene	Ethylbenze
Surr: 1,2-Dichloroethane-d4         252.6         25         250         0         101         70-125         248.2         1.73           Surr: 4-Bromofluorobenzene         253.2         25         250         0         101         72-125         253.5         0.095	<u>2</u> 0	20	1.92	227	80-120	89.1	0		250	25	222.7		ene	Toluene
Surr: 4-Bromofluorobenzene         253.2         25         250         0         101         72-125         253.5         0.095	20	20	0.871	676.3	80-120	89.4	0		750	75	670.4		nes, Total	Xylenes, To
	20	20	1.73	248.2	70-125	101	0		250	25	252.6	roethane-d4	ırr: 1,2-Dichloroetl	Surr: 1,2
Surr: Dibromofluoromethane 249 25 250 0 99.6 71-125 247.7 0.517	20	20	0.095	253.5	72-125	101	0		250	25	253.2	uorobenzene	ırr: 4-Bromofluoro	Surr: 4-E
	20	20	0.517	247.7	71-125	99.6	0		250	25	249	uoromethane	ırr: Dibromofluoro	Surr: Dib
Surr: Toluene-d8 239.1 25 250 0 95.7 75-125 240.2 0.465	20	20	0.465	240.2	75-125	95.7	0		250	25	239.1	8	ırr: Toluene-d8	Surr: To

1207528-08A

1207528-11A

1207528-09A

1207528-12A

1207528-07A

1207528-10A

See Qualifiers Page for a list of Qualifiers and their explanation.

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

QC BATCH REPORT

Batch ID: R13	1461 Instrument ID V	VetChem		Metho	d: <b>SM450</b>	0H+	В	(Dissolve	e)			
LCS	Sample ID: WLCSW1-07181	2-R131461				L	Jnits: <b>pH (</b>	Jnits	Analys	is Date: <b>7/</b>	18/2012 1	0:00 AM
Client ID:		Run II	D: WETCH	IEM_12071	8J	Se	qNo: <b>286</b> 4	1486	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН		6.04	0.10	6		0	101	90-110	0			
DUP	Sample ID: <b>1207555-01DDU</b>	P				L	Jnits: <b>pH (</b>	Jnits	Analys	is Date: <b>7/</b>	18/2012 1	0:00 AM
Client ID:		Run II	D: WETCH	IEM_12071	8J	Se	qNo: <b>286</b> 4	1489	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН		3.39	0.10	0		0	0	0-0	3.42	0.881	20	Н
Temp Deg C	@pH	25.6	0	0		0	0		25.6	0		Н
The following	samples were analyzed in	this batch:	12 12	07528-01H 07528-04H 07528-07H 07528-11H	12 12	2075	28-02H 28-05H 28-09H	12	207528-03H 207528-06H 207528-10H			

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: R	131471 Instrument I	D Balance1		Method	d: <b>M2540</b>	D	(	(Dissolve	e)			
MBLK	Sample ID: WBLKW-0717	712-R131471				U	nits: <b>mg/</b>	L	Analys	sis Date: <b>7/</b>	17/2012 0	8:00 AM
Client ID:		Run ID	BALAN	CE1_12071	7E	Sec	qNo: <b>286</b> 4	1651	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Suspended	Solids (Residue, Non-Fi	U	2.0									
LCS	Sample ID: WLCSW-0717	712-R131471				U	nits: <b>mg/</b>	L	Analys	sis Date: 7/	17/2012 0	8:00 AM
Client ID:		Run ID	BALAN	CE1_12071	7E	Sec	qNo: <b>286</b> 4	1652	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Suspended	Solids (Residue, Non-Fi	86.66	2.0	100		0	86.7	78-120	O	1		
DUP	Sample ID: 1207528-11G	DUP				U	nits: <b>mg/</b>	L	Analys	sis Date: 7/	17/2012 0	8:00 AM
Client ID: M	H 11	Run ID	: BALAN	CE1_12071	7E	Sec	qNo: <b>286</b> 4	1673	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Suspended	Solids (Residue, Non-Fi	13690	2.0	0		0	0	0-0	12620	8.13	20	
The following	ng samples were analyzed	in this batch:	12	207528-01G 207528-04G 207528-10G	12	0752	28-02G 28-06G 28-11G		07528-03G 07528-07G			

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: R	R131486	Instrument ID We	tChem		Method	: SM450	0H+	В	(Dissolve	<del>)</del>			
LCS	Sample ID	): WLCSW1-071912-I	R131486				L	Inits: <b>pH (</b>	Jnits	Anal	ysis Date: 7/	19/2012	09:00 AM
Client ID:			Run I	D: WETCH	IEM_120719	A	Se	qNo: <b>286</b> 5	5352	Prep Date:		DF: <b>1</b>	
Analyte		F	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pН			6.05	0.10	6		0	101	90-110		0		
Pii			0.00	00									
	Sample ID	): 1207685-01FDUP	0.00				L	Inits: <b>pH (</b>	Jnits	Anal	ysis Date: 7/	19/2012 (	09:00 AM
DUP Client ID:	Sample ID	): 1207685-01FDUP			IEM_120719	)A		Inits: <b>pH (</b> qNo: <b>286</b> 5		Anal	ysis Date: <b>7/</b>	<b>19/2012 (</b> DF: <b>1</b>	09:00 AM
DUP Client ID:	Sample ID					<b>)A</b> SPK Ref Value		-			ysis Date: <b>7/</b> %RPD		<b>09:00 AM</b> Qual
DUP Client ID: Analyte	Sample ID		Run I	D: WETCH	IEM_120719	SPK Ref		qNo: <b>286</b> 5	5373 Control	Prep Date: RPD Ref	%RPD	DF: 1 RPD Limit	
DUP			Run I	D: <b>WETC</b> F	<b>IEM_12071</b> ! SPK Val	SPK Ref	Se	, qNo: <b>286</b> 5 %REC	Control Limit	Prep Date: RPD Ref Value	%RPD 53 0.306	DF: 1 RPD Limit	Qual

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: R	131558	Instrument ID Balance1		Metho	d: <b>E1664</b>		(	(Dissolve	e)				
MBLK	Sample ID	): WMBLKW1R131558				Ur	nits: <b>mg/</b>	L	Ana	lysis	Date: 7	/20/2012	08:00 AN
Client ID:		Run II	D: BALAN	ICE1_12072	:0A	Seq	No: <b>286</b> 7	7119	Prep Date:			DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value		%RPD	RPD Limit	Qual
Oil and Gre	ase	U	2.0										
LCS	Sample ID	): WLCSW1R131558				Ur	nits: <b>mg/</b>	<u>L</u>	Ana	lysis	Date: 7	/20/2012	08:00 AM
Client ID:		Run II	D: BALAN	ICE1_12072	:0A	Seq	No: <b>286</b> 7	7118	Prep Date:			DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value		%RPD	RPD Limit	Qual
Oil and Gre	ase	38.57	2.0	40		0	96.4	78-114		0			
MS	Sample ID	): 1207470-01HMS				Ur	nits: <b>mg/</b>	L	Ana	lysis	Date: 7	/20/2012	08:00 AM
Client ID:		Run II	D: BALAN	ICE1_12072	:0A	Seq	No: <b>286</b> 7	7098	Prep Date:			DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value		%RPD	RPD Limit	Qual
Oil and Gre	ase	34.3	2.0	40	0.232	26	85.2	78-114		0			
The follow	ing samples	were analyzed in this batch:		207528-01I 207528-04I		-	!8-02I !8-05I	120	07528-031				

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: R	R131566 Instrument II	D Balance1		Method	: <b>M2540</b>	D	-	(Dissolve	e)			
MBLK	Sample ID: WBLKW-0717	12-R131566				Ur	nits: <b>mg/</b>	L	Analy	/sis Date: <b>7/</b>	17/2012 0	8:00 AM
Client ID:		Run ID	: BALAN	ICE1_12071	7H	Seq	No: <b>286</b> 7	7279	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Suspended	Solids (Residue, Non-Fi	U	2.0									
LCS	Sample ID: WLCS-R1315	66				Ur	nits: <b>mg/</b>	L	Analy	/sis Date: 7/	17/2012 0	8:00 AM
Client ID:		Run ID	: BALAN	ICE1_12071	7H	Seq	No: <b>286</b> 7	7280	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Suspended	d Solids (Residue, Non-Fi	112	2.0	100		0	112	78-120		0		
DUP	Sample ID: <b>1207528-12G</b>	DUP				Ur	nits: <b>mg/</b>	L	Analy	/sis Date: <b>7/</b>	17/2012 0	8:00 AM
Client ID: N	/IH 12	Run ID	: BALAN	ICE1_12071	7H	Seq	No: <b>286</b> 7	7287	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Suspended	d Solids (Residue, Non-Fi	27800	2.0	0		0	0	0-0	2617	0 6.04	20	
The follow	ring samples were analyzed	in this batch:		207528-05G 207528-12G	12	20752	8-08G	12	07528-09G			

See Qualifiers Page for a list of Qualifiers and their explanation.

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: R	<b>131570</b> Ins	strument ID Balance1		Metho	d: <b>E1664</b>			(Dissolve	e)			
MBLK	Sample ID: WM	BLKW1R131570				U	nits: <b>mg/</b>	L	Ana	lysis Date: <b>7</b>	/20/2012	08:00 AM
Client ID:		Run ID	: BALAN	CE1_12072	:0B	Sec	qNo: <b>286</b> 7	7376	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grea	ase	U	2.0									
LCS	Sample ID: WLC	CSW1R131570				U	nits: <b>mg/</b>	L	Ana	lysis Date: 7	/20/2012	08:00 AM
Client ID:		Run ID	: BALAN	CE1_12072	:0B	Sec	qNo: <b>286</b> 7	7372	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grea	ase	39.49	2.0	40		0	98.7	78-114		0		
MS	Sample ID: 1207	7564-01BMS				U	nits: <b>mg/</b>	L	Ana	lysis Date: 7	/20/2012	08:00 AM
Client ID:		Run ID	: BALAN	CE1_12072	:0B	Sec	qNo: <b>286</b> 7	7326	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grea	ase	36.67	2.0	40	0.222	22	91.1	78-114		0		
The followi	ng samples were	analyzed in this batch:	12	207528-061	12	0752	28-09I	12	07528-101			

**Work Order:** 1207528

**Project:** US Hwy 6 & Fed. Blvd Bridges Task 4

# QC BATCH REPORT

Batch ID: R	131605	Instrument ID Balance1		Metho	d: <b>E1664</b>			(Dissolve	e)			
MBLK	Sample ID: W	/BLKW1-072012-R131605				U	nits: <b>mg/</b>	L	Ana	lysis Date: <b>7</b>	/20/2012	03:00 PM
Client ID:		Run ID:	BALAN	CE1_12072	:0E	Sec	No: <b>286</b> 8	3122	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grea	ase	U	2.0									
LCS	Sample ID: W	/LCSW1-072012-R131605				U	nits: <b>mg/</b>	L	Ana	lysis Date: 7	/20/2012	03:00 PM
Client ID:		Run ID:	BALAN	CE1_12072	:0E	Sec	No: <b>286</b> 8	3123	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grea	ase	40.2	2.0	40		0	101	78-114		0		
MS	Sample ID: 1	207734-19AMS				Units: mg/L Analysis Date: 7/20/2012 03:00			03:00 PM			
Client ID:		Run ID:	BALAN	CE1_12072	:0E	Sec	No: <b>286</b> 8	3121	Prep Date:		DF: <b>1</b>	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grea	ase	38.78	2.0	40	0.333	33	96.1	78-114		0		
The followi	ng samples we	re analyzed in this batch:	12	207528-071	12	:0752	28-08I	12	07528-121			

Date: 24-Jul-12 **ALS Environmental** 

**Client:** Olsson Associates **QUALIFIERS,** 

US Hwy 6 & Fed. Blvd Bridges Task 4 **Project:** 

**ACRONYMS, UNITS** WorkOrder: 1207528

Qualifier	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O P	Sample amount is > 4 times amount spiked
r R	Dual Column results percent difference > 40%  RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
<b>Units Reported</b>	<b>Description</b>
°C	Celsius degrees
μg/L	Micrograms per Liter
mg/L	Milligrams per Liter
pH Units	

### ALS Environmental

#### Sample Receipt Checklist

Client Name: OI	LSSON ASSOC - GOLDEN				Date/Time I	Received	d: <u>12-</u>	Jul-12 (	<u>09:30</u>	
Work Order: 12	207528				Received b	y:	RD	<u>N</u>		
Checklist complete	ed by Lohnnie B. Wlen eSignature	1;	3-Jul-12 Date	_	Reviewed by:	Patrus eSignat	eia L. :ure	Lync	h	16-Jul-12 Date
•	<u>water</u> FedEx									
Shipping container	r/cooler in good condition?		Yes	✓	No 🗌	Not	Present			
Custody seals inta	ct on shipping container/coole	r?	Yes	✓	No 🗌	Not	Present			
Custody seals inta	ct on sample bottles?		Yes		No 🗆	Not	Present	<b>✓</b>		
Chain of custody p	resent?		Yes	✓	No 🗌					
Chain of custody s	igned when relinquished and	received?	Yes	✓	No 🗆					
Chain of custody a	grees with sample labels?		Yes	✓	No 🗌					
Samples in proper	container/bottle?		Yes	<b>✓</b>	No $\square$					
Sample containers	intact?		Yes	<b>✓</b>	No $\square$					
Sufficient sample v	volume for indicated test?		Yes	<b>✓</b>	No 🗌					
All samples receive	ed within holding time?		Yes	<b>✓</b>	No 🗆					
Container/Temp B	lank temperature in compliand	ce?	Yes	<b>~</b>	No 🗌					
Temperature(s)/Th	nermometer(s):		2.5 C,2 C/uc	2.1 C	,2.3 C,2.4 C,1.9	C,2.3	003			
Cooler(s)/Kit(s):				2611/	5029/4670/2773	3/ Med Bl	ue/White			
	(s) sent to storage:		7/13/1:						_	
Water - VOA vials	have zero headspace?		Yes	<b>✓</b>	No 🗌	No VOA	A vials sub	mitted		
Water - pH accepta	able upon receipt?		Yes	<b>✓</b>	No 🗌	N/A				
pH adjusted? pH adjusted by:			Yes -		No 🗸	N/A				
Login Notes:	Sample Analyses on Sampl Containers per PM	e Containers does r	not matc	h CC	XC; Analyses to	be perf	ormed are	those o	on Sample	
=====	:======	=====			=====		===		====	=====
Client Contacted:		Date Contacted:			Person	Contact	ed:			
Contacted By:		Regarding:								
Comments:										
CorrectiveAction:									SRC	Page 1 of 1

Gacinaati, OH +1 513 733 5336

Holland, Mi +1 616 399 6070

Everett, WA +1 425 356 2600

Fort Collins, CO +1 970 490 1511

Chain of Custody Form

Page 1 of 2 coc ib: 56121

ALS Project Manager.

# 1207528

OLSSON ASSOC - GOLDEN: Olsson Associates

Project: US Hwy 6 & Fed. Blvd Bridges Task 4

				Secretary of the party of the field	
Custom	Customer Information		Project Information		
Purchase Order		Project Name	US Hwy 6 & Fed. Blvd Bridges Task 4	Task 4	
Work Order	TOTAL TOTAL	Project Number	A11-2359	<b>a</b>	GRO (8015M)
Company Name	Okson Assudates	Bill To Company	Olsson Associates	ပ	DKO (8015M)
Send Report To	James Pix	Invoice Attn	James Mx	۵	Total Metals (6020/7000) RCRA 8 + Fe.Mn.Mo.U.Zn
7693	4880 Table Mountain Drain	Addition	4850 Table Hountain Drive	ш	PANS (8270), Low-Level
	Suite 200	Address	Suite 200	IL.	FK 8K
City/State/Zip	Salden, CO 80403	City/State/Zip	Galden, CO 80403	g	\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}
SEC Phone (38)	(363) 237-2672	Phone	(303) 237-2072	1	
<b>Fax</b> (30)	(303) 237-2659	Fax	(303) 237-2859		
e-Mail Address		e-Mail Address		7	
No. Samp	Sample Description	Date	Time Matrix Pres.	# Bottles A	N B C D E F G H I J Hold
THW		7/10/13 10	730 GW	( / / /	XXX
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H H W			55		
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Sampler(s) Please Print & Sit	uĝ	Shipment Method	sthod Required Turnaround Time: (Check Box	und Time: (Chec	ck Box) Results Due Date:
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Relinquished by:	6	Time: 7	Received by Laboratory):		Cooler ID Cooler Temp: QC Package: (Check One Box Below)
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9-5035

8-4°C

7-Other

6-NaHSO,

5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

4-NaOH

3-H,SO,

2-HNO3

Preservative Key: 1-HCI

Logged by (Laboratory)

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
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					10	Manager:			ALS Work Order #:	(56/ 1#
	Customer Information			Project	Project Information			Parameter	Parameter/Method Request for Analysis	st for Analysis
Purchase Order	der		Project Name	H 55	US Hwy b & Fed. Skd Bridges Task 4	7387	₹	VOC (8260) BTEX		
Work Order			Project Number	A11-2389	3339		8	GRO (801SM)		
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City/State/Zip	<b>Zip</b> Galden, CO 80403		City/State/Zip	Gold	Golden, CO. 20403		Ø		× 57.50	
#a	Phone (305) 237-2072		Phone	(808)	(303) 237-2072		Ŧ			
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Hold

e: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document. All information must be completed accurately.

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9-5035

8-4°C

7-Other

6-NaHSO

5-Na25203

4-NaOH

3-H-SO

2-HNO3

reservative Key: 1-HCI

gged by (Laboratory):

TRRP Checilli TRANSPIESSON IN

Received avil aboratory) Checked by (Laboratory):

AS Level Bird Oct.

Level Bird Octrov per [ ] Lovel N SWSNE/CLP

Other Finds

Other / EDD

36 of 40

#### Pat Lynch

From: James Hix [jhix@olssonassociates.com]
Sent: Tuesday, July 17, 2012 10:09 AM

To: Pat Lynch

Subject: RE: 1207528 US Hwy 6 & Fed. Blvd Bridges Task 4

Pat,

We do not need to run the low level PAH or the analysis for Fe, Mn, Mo, and Zn, but everything else looks to be correct.

James

James W. Hix, PG| Olsson Associates

4690 Table Mountain Drive, Suite 200 | Golden, CO 80403 | jhix@oaconsulting.com TEL 303.237.2072 | DIR 303.374.3139 | CELL 303.589.1572 | FAX 303.237.2659



From: Pat Lynch [mailto:Pat.Lynch@ALSGlobal.com]

**Sent:** Monday, July 16, 2012 6:56 PM

To: James Hix

Subject: 1207528 US Hwy 6 & Fed. Blvd Bridges Task 4

James,

We assigned oil & grease, pH & TDS in addition to the analyses listed on the COC based on our conversation and the bottles that were received.

Please see the attached file that contains the sample IDs, test assignment, and costs associated with the recent samples you submitted. Please let me know if you have any changes, otherwise we will proceed as shown. Modifications to the final report, after issue, may incur additional cost.

Regards,

Pat

Patricia L. Lynch

PROJECT MANAGER

#### **ALS I Environmental**

**ADDRESS** 

10450 Stancliff Rd, Suite 210

Houston, Texas 77099-4338

Direct Phone #: 281-575-2162

(281) 530-5656

http://www.alsglobal.com

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#### ALS Environmental

10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

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Industrial Laboratories is your independent, third-party analytical testing laboratory

To: Olsson Associates

4690 Table Mountain Drive

#200

Golden

CO

80403

Attn: Ben Baugh

**TEST REPORT** 

OLSSONASSO

Date Received:

7/11/2012

Date Reported:

7/16/2012

PO Number:

Note: Sample test procedures conform to EPA 40CFR136 requirements.

Lab No.	Sample Description	Test Method	Result	Units	MDL	Analysis Date/By
120711001-01A	MH1, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mL		GH 7/11/2012
120711001-02A	MH2, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mL		GH 7/11/2012
120711001-03A	MH3, 7/10/12	* Escherichia coli SM 9221 F	2	MPN/100mL		GH 7/11/2012
120711001-04A	MH5, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mI		RJ 7/11/2012
120711001-05A	MH6, 7/10/12	* Escherichia coli SM 9221 F	4	MPN/100mI		GH 7/11/2012
120711001-06A	MH7, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mI	_	RJ 7/11/2012
120711001-07A	MH8, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mI	_	GH 7/11/2012
120711001-08A	MH9, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mI	= 	GH 7/11/2012

\* = Scope Analysis

# = Subcontracted Analysis

MDL = Method Detection Limit

ND = Not Detected at the Method Detection Limit

Page:

1 of 2



Industrial Laboratories is your independent, third-party analytical testing laboratory

To: Olsson Associates

4690 Table Mountain Drive

#200

Golden

CO

80403

Attn: Ben Baugh

**TEST REPORT** 

**OLSSONASSO** 

Date Received:

7/11/2012

Date Reported:

7/16/2012

PO Number:

Note: Sample test procedures conform to EPA 40CFR136 requirements.

Lab No.	Sample Description	Test Method	Result	Units MD	Analysis L Date/By
120711001-09A	MH10, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mL	GH 7/11/2012
120711001-10A	MH12, 7/10/12	* Escherichia coli SM 9221 F	2	MPN/100mL	GH 7/11/2012
120711001-11A	MH11, 7/10/12	* Escherichia coli SM 9221 F	<2	MPN/100mL	GH 7/11/2012

\* = Scope Analysis

# = Subcontracted Analysis

MDL = Method Detection Limit

ND = Not Detected at the Method Detection Limit

Page:

2 of 2

# ATTACHMENT D SITE PHOTOGRAPHS



Subject: Monitoring Hole MH-1 was located in Barnum Park Southwest Corner of U.S. Highway 6 and Federal Boulevard. The proposed location (white spray paint/whisker) was near an irrigation line (blue spray paint line), so it was moved approximately another foot east.

**Date:** 06/20/12

View: North



**Subject:** Photograph shows monitoring hole MH-1 completion. MH-1 was completed using a flush-mounted well cover grouted in place and was low enough to not interfere with mowing.

**Date:** 06/20/12

View: Northeast



Subject: Monitoring Hole MH-2 was located in Barnum Park East on the southeast corner of U.S. Highway 6 and Federal Boulevard. Irrigation water lines (blue spray paint) were located close to the proposed MH-2 location, so it was moved approximately 8 feet to the east.

**Date:** 06/20/12

View: Northeast



**Subject:** Photograph shows the location of MH-2 in Barum Park East on the west side of the baseball fields.

**Date:** 06/20/12

View: North



Subject: Monitoring Hole MH-12 was located on CDOT property on the north side of U.S. Highway 6 and to the east of the Denver Public Schools school bus facility. Drill cuttings were placed on plastic and were covered adjacent to the MH-12 location. All of the wells were completed with flushmounted well covers.

Date: 06/20/12

View: South



Subject: Photograph shows the location of soil drums staged near MH-12 on CDOT property and concrete wash out area. The soil cuttings were removed from the temporary wells (MH-1 through MH-4) drilled in Barnum Park. The Denver Public Schools property is shown at the top of the hill.

Date: 06/20/12

View: West

Hartwig & Associates U.S. Highway 6 Bridges Task Order 4



**Subject:** Monitoring Hole, MH-3, was located on the south side of Barnum Park East near West 5<sup>th</sup> Avenue and the on-ramp to east bound U.S. Highway 6. Traffic control was set up for the shoulder work.

**Date:** 06/21/12

View: South



**Subject:** Photograph shows the drilling of MH-3 along west 5<sup>th</sup> Avenue, East Barnum Park, Denver, CO.

**Date:** 06/21/12

View: Southeast



**Subject:** Photograph shows monitoring hole, MH-4, location on the southeast side of the Barnum Park baseball fields and West 5<sup>th</sup> Avenue and the on-ramp to east bound U.S. Highway 6.

Date: 06/21/12

View: Northeast



**Subject:** Photograph shows the MH-4 location near the curb along West 5<sup>th</sup> Avenue.

**Date:** 06/21/12

View: Southwest



**Subject:** Photograph shows the location of monitoring hole, MH-5, located near the on-ramp to east bound U.S. Highway 6 and northeast of the Barnum Park East baseball fields (background).

**Date:** 06/21/12

View: Southwest



**Subject:** Photograph taken from the location of monitoring hole MH-5 toward the MH-6 location.

**Date:** 06/21/12

View: East

Hartwig & Associates U.S. Highway 6 Bridges Task Order 4



**Subject:** Photograph shows the location of monitoring hole, MH-6, on the south side of east bound U.S. Highway 6 and east of the on-ramp. The topography slopes to the east and southeast.

**Date:** 06/22/12

View: East



**Subject:** Photograph shows the MH-6 location and the hill slope to the south. The U.S. Highway 6 onramp is shown in the background. There were fiber optic lines belonging to CDOT marked in the area of MH-6.

Date: 06/22/12

View: West



**Subject:** Photograph shows the location of monitoring hole, MH-7, located on the eastern tip of the median separating the off-ramp and west bound U.S. Highway 6. The MH-7 location was downhill from the Denver Public Schools bus facility.

**Date:** 06/22/12

View: North



**Subject:** Photograph shows the location of MH-7 on the median between U.S. Highway 6 west bound (left) and the off-ramp to north bound Federal Boulevard (right) and the Denver Public Schools bus facility.

**Date:** 06/22/12

View: West



**Subject:** Photograph shows the location of MH-8 located at the bottom of the hill slope on the north side of west bound U.S. Highway 6, to the east of Federal Boulevard and the Days Inn motel property, and south of the offramp to north bound Federal Boulevard, and the Denver Public Schools school bus facility.

**Date:** 06/22/12

View: West



**Subject:** Photograph shows the MH-8 location on the north side of U.S. Highway 6. Drill cuttings were stored on plastic.

**Date:** 06/22/12

View: East



**Subject:** Monitoring hole, MH-9, was located downhill from the Days Inn Motel sign on the north side of U.S. Highway 6 west bound, and south of the off-ramp to north bound Federal Boulevard.

**Date:** 06/25/12

View: North



**Subject:** Photograph shows the location of MH-9 along the north side of west bound U.S. Highway 6. The soil drill cuttings were stored on plastic.

**Date:** 06/25/12

View: West



**Subject:** Photograph was taken from the MH-9 location looking along U.S. Highway 6 west and east bound lanes.

**Date:** 06/25/12

View: East

Hartwig & Associates U.S. Highway 6 Bridges Task Order 4



**Subject:** The location of monitoring hole MH-11 was inside the fence on the northwest corner of the CDOT that is bound to the west by Federal Boulevard, to the south east, and northeast by the Days Inn motel property, and to the north by a parking lot.

**Date:** 06/25/12

View: South-southwest



**Subject:** The CDOT property where MH-11 was located was partially paved with asphalt, and partially unpaved.

**Date:** 06/25/12

View: Northeast



**Subject:** Photograph shows the location of MH-11 on the northwest corner of the CDOT property. Drill soil cuttings were stored on plastic.

**Date:** 06/25/12

View: North



**Subject:** Photograph shows the location of monitoring hole, MH-10, located on the northwest corner of Federal Boulevard and U.S. Highway 6.

**Date:** 06/25/12

View: South



**Subject:** Monitoring hole, MH-10, was located near baseball fields on the northwest corner of Federal Boulevard and U.S. Highway 6. The temporary well was installed as a flush-mounted well on the west side of the sidewalk.

Date: 06/25/12

View: Northwest



**Subject:** Photograph shows the hill slope adjacent to MH-10. The drill cuttings were drummed since the well was located in Barnum Park.

Date: 06/25/12

View: Northeast

## APPENDIX 1

Initial Site Assessment (ISA)

#### Introduction

The proposed project consists of replacing the bridge on U.S. Highway 6 over the BNSF Railway (BNSF) railroad in the City and County of Denver. Wilson and Company has been retained to evaluate project alternatives, grading and foundation plans for this project. It is anticipated that all work will be completed within Colorado Department of Transportation (CDOT) right of way (ROW).

#### Methods

Pinyon has completed an Initial Site Assessment (ISA) of the study area to evaluate the potential for hazardous materials or petroleum products that may have been released into the subsurface to impact the project. Pinyon utilized the ISA methods developed by the Colorado Department of Transportation (CDOT) to complete this assessment. The following was conducted for the project:

- Reconnaissance survey of the Site and surrounding area on August 22, 2011, to evaluate present conditions;
- Review of the compliance history of the Site, and of any adjacent sites, as identified by an environmental regulatory database search (Satisfi, Inc.);
- Review of records reasonably available from appropriate federal, state and local regulatory agencies for documented soil and/or ground-water contamination investigations conducted at the Site and the vicinity, as identified by an environmental regulatory database search (Satisfi, Inc.);
- Review of historic Sanborn fire insurance maps;
- Paint samples for the analysis of lead were collected from areas of the steel beams underneath the bridge, near the top of the bridge abutment. The paint samples were collected using a chisel or a knife. Each sample was logged on a field sampling form. Four colors of paint were observed: silver, red, brown and gray. The following nomenclature was assigned to the samples:
  - o PC-1: silver paint the bridge beams
  - o PC-2: red paint on the bridge beams
  - o PC-3: brown paint on the bridge beams
  - o PC-4: gray paint on the bridge beams

One paint chip sample of each color of paint identified from the bridge was collected and submitted to Reservoirs Environmental Laboratory (Reservoirs) for lead analysis. Reservoirs is accredited by the American Industrial Hygiene Association for metals analysis through the Environmental Lead Proficiency Analytical Testing (ELPAT)-Environmental Lead Laboratory Accreditation Program for environmental samples and Proficiency Analytical Testing (PAT) - Industrial Hygiene Laboratory Accreditation

Program for industrial Hygiene samples. Reservoirs operates under AIHA Certificate #480 and laboratory ID #101533. The samples were analyzed using the Atomic Absorption Spectroscopy (AAS)/Atomic Spectroscopy (AES)/Atomic Emission Spectroscopy - Inductively couples Plasma (AES-ICP).

• A sample was collected from a suspect material (caulking on south bridge pier) observed on the bridge for analysis of asbestos. The asbestos sampling was completed by an Environmental Protection Agency (EPA) accredited Asbestos Hazard Emergency Response Act ((AHERA); 40 CFR763) and state of Colorado certified inspector. The sample was collected following AHERA procedures using a utility knife. The sample was assigned a unique number and logged on a field sampling form.

The asbestos sample was then delivered to Reservoirs. A chain-of-custody form was submitted with the samples. Reservoirs is certified by the National Institute of Standards and Technology (NIST) and is a participant under the National Voluntary Laboratory Accreditation Program (NVLAP). The asbestos sample was analyzed using polarized light microscopy (PLM).

- Based on preliminary research completed in support of this ISA, Pinyon collected ground-water samples from two soil borings that were completed in support of a the geotechnical investigation by Geocal, Inc. (Geocal). The borings, B-1 and B-6, were located at the location of future deep excavation areas, (e.g., bridge caissons) (Figure 2). Boring B-1 was drilled and sampled on October 31, 2011, and is located down-gradient of the bridge, and boring B-6 was drilled and sampled on November 9, 2011, and is located up-gradient of the bridge. The following methods were utilized to collect ground-water samples:
  - O Drilling was subcontracted by Geocal using hollow-stem auger (HSA) techniques. Water was encountered at a depth of approximately 35 feet below ground surface (bgs) in each boring. After advancing to a depth of 40 feet bgs, a ground-water sample was collected from each of the two borings from within the drill augers using disposable bailers.
  - Each sample was containerized in appropriate bottles provided by the analytical laboratory, labeled, and placed on ice in a cooler. The samples were submitted to TestAmerica of Arvada, Colorado, for analysis of typical dewatering parameters utilizing Clean Water Act parameters, including volatile organic compounds (VOCs) by EPA Method 624, semi-volatile organic compounds (SVOCs) by EPA Method 625, and potentially dissolved metals and total recoverable metals by EPA Methods 200.7, 200.8 and 254.1. Metals included the following: aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium (III and VI), copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, uranium and zinc. Samples were also analyzed for total suspended and

dissolved solids (TSS and TDS, respectively), by method SM20 2540C and D, respectively.

The following attachments are made part of this ISA:

- 1. Satisfi, Inc. Environmental FirstSearch Database, dated May 26, 2011
- 2. Figure 1 Site Location
- 3. Figure 2 Site Plan
- 4. Table 1 Details of Identified Agency Listings
- 5. Table 2 Ground-Water Analytical Results and Surface-Water Discharge Permit Limits Metals Parameters
- 6. Table 3 Ground-Water Analytical Detection Results and Surface-Water Discharge Permit Limits Organics Parameters
- 7. Table 4 Ground-Water Analytical Results and Surface-Water Discharge Permit Limits Other Parameters
- 8. Reservoirs Environmental, Inc. Lead-Paint Analytical Report, dated August 25, 2011
- 9. Reservoirs Environmental, Inc. Asbestos Analytical Report, dated August 25, 2011
- 10. TestAmerica Analytical Report, dated November 11, 2011
- 11. TestAmerica Analytical Report, dated November 29, 2011
- 12. Site Photographic Log

#### **Results**

The subject property is located in an urbanized and industrial portion of the City and County of Denver. The project area is made up primarily of paved roadways, with a portion of the Site located over BNSF railroad tracks.

*Hydrology:* The depth to ground water is expected to be between 5 and 14 feet bgs from the bottom of the road embankment near the existing BNSF tracks, (Pinyon, 2001), and deeper from the U.S. 6 roadway due to embankment material thickness. Typically, ground-water flow direction mimics topography; therefore, ground water is expected to flow in a west/northwesterly direction towards the South Platte River (USGS, 1994a and b; USGS, 1996).

Database Facilities: The agency database identified 100 facilities within one mile of the project, based on ASTM search standards. Pinyon reviewed sites that were in close proximity to the study boundaries, with particular emphasis on sites that could have contaminated areas that would be encountered during construction of this project. Of particular concern were sites that could impact the project during deep excavation (i.e., drilling of caissons which would support bridge abutments), or proximate to areas where shallow excavation could occur. During review of the Satisfi database, nine off-site facilities were identified for further discussion. The locations of these facilities are presented on the attached Figure 2. The nomenclature of each facility is consistent with those presented in the Satisfi database. The following is a discussion of each:

8. 590 Quivas Street – This facility (PPG Industries, Inc.) is an underground storage tank facility (UST) facility and a generator of hazardous waste. One former underground

storage tank operated at the facility. The tank was installed in 1969 and contained 2,000gallons of gasoline. The tank was last used in 1987, and the closure method is unknown. It is unknown whether there were any releases from the tanks.

The facility is also listed as a former generator for ignitable waste, corrosive waste and spent halogenated solvents. There are no releases or violations reported at the facility for these items. This facility is located up-gradient of the Site; therefore, it is possible that the Site could have been impacted in the event a release occurred and not reported.

- 9. 1701 West 6<sup>th</sup> Avenue This facility is listed as a Spill facility. The event occurred in October 1997. A caller stated that while digging, ground water came in and diesel fuel was observed on the top of the water. The caller stated that the Site is next to the railroad, and that the railroad has reported several spills in the past. There was no information regarding cleanup activities. This facility is located up-gradient of the Site and it is possible the Site has been impacted.
- 11. 595 Quivas Street This facility is listed as Conrad's Inc., and is a leaking underground storage tank (LUST) and UST facility. The Division of Oil and Public Safety (OPS) website indicates two tanks were installed at an unknown time. One tank was approximately 2,000 gallons in size and the other was an unknown size. Contents of each tank are unknown. A confirmed release was reported at the Site in 1996. The OPS issued a closure letter for the facility on August 14, 1997; therefore, based on cleanup activities to the satisfaction of the lead regulatory agency, the project is not likely to be impacted by this facility.
- 12. 555 Quivas Street This facility, Dupont DeNemours and Co., is listed as a former generator of hazardous waste. The facility is listed as a former generator for ignitable waste, corrosive waste and spent non-halogenated solvents. The facility is no longer reporting as a generator and no spills or releases have been documented. This facility is located up-gradient of the Site; therefore it is possible that the Site could have been impacted in the event a release occurred and not reported.
- 13. and 21. 4<sup>th</sup> and Navajo Street A Spill was reported at the Southern Pacific Railroad property by a caller who stated that oil was bubbling out of the ground and pooling on a gravel road. There was no information in the database regarding the specific location of this condition, the source of contamination, or cleanup activities. Heavy-rail activities are ongoing east of the project area, over 1,500 feet east of the Site bridge. It is possible that the Site has been impacted by past and/or current rail activities in the vicinity.
- 24. 5<sup>th</sup> and Osage Streets A LUST was identified in the agency database at this location; however, the OPS files for this facility are incomplete. This facility is potentially located hydro-geologically up-gradient of the Site, and a release from this facility could impact the Site.

- 25. 490 Osage Street A UST and LUST have been recorded at this property. No specific information regarding the UST was identified with the OPS. A release was reported in 1991, and corrective actions followed. The OPS issued a No Further Action letter on October 28, 1993. This facility is located hydro-geologically up-gradient of the Site; however, based on cleanup actions completed, it is not likely to have impacted the Site.
- 36. 500 Quivas Street –This facility is listed as a Spill facility. The event occurred in February 1997. The building department stated that during drilling of borings to get soil parameters stained soils and hydrocarbon odors were encountered. There was no information regarding cleanup activities. This facility is located up-gradient of the Site and it is possible the Site has been impacted.
- 43. 501 Raritan Way This facility is listed as a UST and a former generator facility. The UST was operated by Associated Stationer, Inc., and the installation date of the tank is unknown. The OPS indicates that it was removed from the facility in 2001. The tank was approximately 2,000 gallons in size and contents are unknown. No releases have been reported at the facility.

The facility is also listed as Fuji Photo Film USA, is listed as a former generator for silver waste. There are no releases or violations reported at the facility. This facility is located up-gradient of the Site; therefore, it is possible that the Site could have been impacted by this facility.

A significant number of other facilities were reported in the Satisfi database near the subject project (Satisfi); however, based on the status of the listings reviewed, distances, and hydrogeologic relationships of those facilities to the project, it is unlikely that those facilities will impact the project.

Other Site: 6<sup>th</sup> and Osage – This facility is not listed specifically in the agency database. The City and County of Denver (CCoD) completed an evaluation for the presence of free-phase hydrocarbons reportedly located on ground water in a large area within the project vicinity (CCoD, 2002). It has been reported that at least three ground-water diesel plumes are located in the vicinity of 6<sup>th</sup> and Osage, all from unknown sources. The CCoD completed an investigation of approximately 74 acres in size east of the subject site, which included collection of several soil and ground-water samples. Investigations indicated that up to three feet of free-phase hydrocarbons are located on ground water, and ground water tends to flow toward the west and the South Platte River. Investigations have also indicated that a storm-water ditch immediately northeast of the subject bridge may have been historically impacted by hydrocarbons, likely the result of ground-water seepage. The results of the investigation indicated the contamination is likely the result of historic releases, most likely the result of historic railroad operations at the Burnham Yard where very large fuel tanks were historically operated, and possibly other sources east of the site. There was no direct investigation completed at the site.

Pinyon contacted Cindy Smith with the Colorado Department of Public Health and Environment (CDPHE) Solid Waste Division, Kelly Jackues with the CDPHE Water Quality Control Division

(WQCD), Walter Avramenko with the CDPHE Hazardous Waste Corrective Action Unit, and Fonda Apostolopoulos with the CDPHE Voluntary Cleanup Program regarding this issue. All indicated that they were aware of the problem, but that the CDPHE did not have the regulatory authority to pursue this issue as a potential responsible party has not been identified, and that the contaminants were likely released prior to most environmental regulations. None were aware of any other specific public information regarding this facility other than the investigation completed by the CCoD.

Sanborn Fire Insurance Maps: Sanborn maps were reviewed; however, Pinyon did not identify any detailed maps for the immediate project area. The map key indicated that the Site and vicinity was a portion of the "Fletchers West Side Subdivision" and the "Middaugh's Addition" subdivision. The closest detailed maps were located for the area around the rail yards east of the project area.

Lead Paint: Three of the four paint chips collected at the Site contained lead. The silver paint (PC-1) contained lead at 0.07 percent (%); the brown paint (PC-3) contained 7.246% lead; and the gray paint (PC-4) contained lead at 2.693%. Lead was not identified in the red paint (PC-2).

Asbestos-Containing Materials: The caulking identified on the south bridge piers did not contain asbestos.

#### Ground Water:

Sampling of ground water in the project area was completed to support the application of future dewatering permits which will be required to be obtained by the future contractor. Anytime that ground water is discharged to the surface, the surface water regulations become the overriding limits with regard to levels of contaminants that can be discharged to a surface water body. As such, a broad screen ground-water analysis, including VOCs, SVOCs, total recoverable metals, potentially dissolved metals, TSS and TDS, was conducted. Attached to this ISA are the laboratory analytical reports, including Chain of Custody forms. The following discussion presents the results of the analysis:

Metals: The results of the metals analysis were compared to the CDPHE surface-water standards (Table 2). Based on the project location, discharge will most likely be to Segment 14 of the South Platte River. Based on this information, the first hierarchal regulation is Regulation 38 for inorganic constituents (metals) (CDPHE, 2011a), followed by Regulation 31 (CDPHE, 2011b). Note that only acute standards, and not chronic standards, were examined during this investigation, since the construction project is anticipated to be of limited duration.

If no value was listed for a given metal, table value standards (TVS) from Regulations 31 and 38 for acute aquatic life impacts were used. For example, Segment 14 has a numeric limitation for arsenic, whereas other metals such as cadmium and copper have a TVS from Regulations 31 and 38. If no numeric value from Regulation 38, or acute TVS from Regulations 31 and 38 are given for a specific constituent, then either the Regulation 31 "water+fish" standard or the domestic water-supply (DWS) standard applies, in that order. Most of the Regulation 31 and 38 TVSs are based on a mathematical formula with

the current stream hardness as the variable. The Metro Wastewater Reclamation District (MWRD) collects regular hardness data from the South Platte River. The nearest sample location to the project area identified is near the confluence of Clear Creek, approximately 100 yards up-river from Clear Creek, and the most recent data available was collected on December 1, 2010. At that time, the hardness was measured at 251 milligrams per liter (mg/L). Therefore, for this project, 251 mg/L was utilized as the variable. It is possible that more recent hardness data is available from another source; however, at the time of this investigation, no other data was identified. Potential permit limits could be amended with more appropriate hardness date, if available.

Ground-water sample results collected at the Site indicate that ground water contains concentrations of aluminum, barium, beryllium, copper, iron, lead, selenium, thallium and zinc at concentrations exceeding potential CDPHE discharge limits (Table 2). It is not clear where the source(s) of these contaminants is; however, it appears that the source(s) is from an off-site and up-gradient location. Elevated metals concentrations in ground water tend to be a persistent problem in the project vicinity, likely the result of various historic industrial land uses.

Elevated concentrations of arsenic were also detected in the samples collected. The concentrations do not exceed potential acute (limited duration) discharge limits. However, depending on the quantity of discharge (e.g., chronic, or long-term discharge), it is possible that a significantly lower permit limit would be enforced by the CDPHE for arsenic. This standard is currently under review by the CDPHE.

- <u>VOCs</u>: Four VOCs were detected at concentrations below the laboratory reporting limits, but above the laboratory method detection limits (Table 3). The only compound with a potential permit limit was chloroform. The concentration detected was below the potential permit limit. Chloroform is often detected in ground water; it is often present as the result of leaking potable water lines. The other compounds detected do not currently have permit limits.
- SVOCs: Three SVOCs were detected within the project area (Table 3). Two compounds, naphthalene and diethyl phthalate, were detected at concentrations well below potential permit limits. The third compound, bis (2-ethylhexyl) phthalate, was detected at a concentration slightly exceeding the potential permit limit. However, this compound was also detected in the laboratory blank sample at concentrations similar to those detected in the samples submitted (Table 3). This chemical is widely used as a plasticizer in PVC and other plastic products, and is a common laboratory contaminant. Therefore, as the concentrations noted in the ground-water samples and blank samples were similar, it is likely that those detections were not the result of a ground-water issue, but rather the result of a laboratory contaminant, which is not unusual.
- TSS concentrations exceed potential discharge limits, which is not uncommon considering the methods utilized in sample collection. No TDS permit limits are available.

#### **Conclusions and Recommendations**

- No potential on-site contaminant sources that would impact soils were identified during research activities. Soil management recommendations are not deemed necessary.
- VOCs and SVOCs were not detected at concentrations in ground water that would likely require special handling or treatment.
- Significantly elevated metals concentrations were detected in the ground-water samples
  collected. Therefore, water generated during construction of the project, especially
  during deep excavations (e.g., tremie displacement of water during drilling of caissons),
  must be immediately containerized for proper off-site disposal. Ground water must not
  be allowed to be discharged onto the ground, or into sanitary or storm sewers, or any
  surface water body or Waters of the State.

Lead-based paint was identified in three of the four paint colors observed on the bridge. Pinyon recommends that the selected contractor be notified that these are painted with lead-based paint. Further, Pinyon recommends that the contractor avoid sanding, cutting, burning, or otherwise causing the release of lead from paint on bridge components. These should be removed carefully and properly recycled. OSHA Regulation 1926.62 should be consulted for worker protection prior to removal of painted components. All painted bridge components should be removed and recycled in accordance with CDOT Specification 250.04.

• The contractor must follow CDOT Specification 250 – Environmental, Health and Safety Management during excavation activities at this project at depths that approach the ground-water level (approximately 35 feet). A Materials Management Plan should be developed by the Contractor which details the methods that will be utilized to manage contaminated groundwater generated during construction activities. The MMP should also address management of soil that is generated which could also be impacted due to contact with groundwater.

#### References

CCoD, 2002. "Source Area Evaluation and Site Investigation Report for the 6<sup>th</sup> and Osage Site, Denver, Colorado," Prepared by the City and County of Denver Department of Environmental Health, December 27, 2002.

CDPHE, 2011a. Regulation No. 38 – Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin (5 CCR 1002-38), Colorado Department of Public Health and Environment, Water Quality Control Commission, Effective June 30, 2011.

- CDPHE, 2011b. Regulation No. 31 The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31), Colorado Department of Public Health and Environment, Water Quality Control Commission, Effective January 1, 2011.
- Pinyon, 2001. "Phase II Environmental Site Assessment of Sears Warehouse and Adjacent Property, 701 Osage Street, Denver, Colorado," Pinyon Environmental Engineering Resources, Inc., August 7, 2001.
- USGS, 1994a. "7.5 Minute Topographic Map, Englewood Quadrangle, Colorado," United States Geologic Survey, 1964, photorevised 1994.
- USGS, 1994b. "7.5 Minute Topographic Map, Fort Logan Quadrangle, Colorado," United States Geologic Survey, 1964, photorevised 1994.
- USGS, 1996. "Geohydrology of the Shallow Aquifers in the Denver Metropolitan Area, Colorado," United States Geologic Survey, Atlas HA-736, 1996.

COLORADO DEPARTMENT OF TRANSPORTATION	Region No.: 6	Project No.:	FBR 0062-026
Initial Site Assessment (ISA)	Route ID: U.S. 6	Project Code (SA#)	): 18202
Project Description			
Project Name: US 6 Bridge over BNSF Railway			
Milepost Begin: NA Milepost End: NA	County Name(s):	Denver	
Location: U.S. 6 over the BNSF Railway, immediately east of Interstate 25, City and Cou			
Main Project Elements:  The proposed project consists of replacing the bridge on U.S. Highway 6 over and Company has been retained to evaluate project alternatives, grading and within Colorado Department of Transportation (CDOT) right of way (ROW).			
	Structure Modification Disturbance depth (if known):	Structure Demolition New R	. $\square$
GW Anticipated  Yes Unknown Depth to GW (if known) 35 ft	GW flow direction (if known):	West/NW Dewat	tering 🗸
Records Review & Interview(s)			
The following records/sources were used in this assessment ('No' is implied if unchecked):  ASTM Standard Environmental Record Sources  OPS  CDPHE  C  ASTM Standard Search Radii, or  Modified Search Radii:  Previous Environmental Reports/CDOT Files:	CDOT Internal Database		
✓ Other Files/Databases (Assessor, Fire dept., Building, etc.):			
Topographic Map(s)			
Aerial Photograph(s)	1993, 1999, 2002, 2003, 2	2004, 2005, 2006,	2007 and 2008
Sanborn Map(s)			
Local Street Directories Yes - year(s):			
Historic land use(s) within the project area (if known):			
Interview(s): Yes			
Name/Title/Date/Comments:			
Name/Title/Date/Comments:			
Site Reconnaissance & Description  Was a visual inspection conducted? No Ves Inspection Date:	2/00/0044		
Was a visual inspection conducted? No Yes Inspection Date: If 'No' document the reason:	8/22/2011		
Project area and land use(s) description: The project area includes the existing roadway, 6th	Avenue, and a BNSF Railway ra	ailroad line. Several "c	camps" and belongings
were observed underneath the bridge on the east side.			
✓ Industrial ☐ Light Industrial ☐ Commercial ☐ Residential ☐ Agricult	ural Undeveloped	Other:	
Adjacent CDOT right-of-way related to U.S. 6 and Interstate 25 interchange is located w. land use(s): BNSF. Toward the northeast and southeast are a mixture of commercial and in	,	and south of the Site at	re tracks related to the
✓ Industrial ✓ Light Industrial Commercial ✓ Residential Agricultur		✓ Other: Rail ya	
Potential environmental concerns on the immediate project area of	or directly adjacent to it (select	from dropdown men	u):
<u>Project Area</u> <u>Adjacent</u>		<u>Proj</u> <u>Are</u>	Adjacent
Evidence of underground tanks, no no	Protected/fenced/placarded area	a(s) ye	es yes
(pipes, vents, fill caps, etc.)	Liquid waste (pits, ponds, etc.)	ne	o no
Aboveground storage tank(s) no no	Oil Sheen (soil/water)	no	o no
Monitoring/Water Well(s) no no	Oil/Gas wells	no	o no
Electrical/Transformer Equipment no no	Mine tailings/waste	no	o no
Cistern(s), sump(s), drain(s) no no	Painted/Preserved Materials	ye	es no
Barrel(s), drum(s), container(s) no no	Odors	no	o no
	Chemical Storage	no	o no
Exposed/buried landfill no no	Suspect asbestos containing ma		o no
Batteries no no	Suspect methamphetamine lab	waste no	o no
Surface Staining no no	Contaminated ground water	ye	es yes
Stressed Vegetation no no			

Findings/Conclusions:									
Are known hazardous or other waste sites on or	adjacent to the project area, which may affect the project (explain below)?	✓ Yes  No							
Detailed information is presented on attached IS	A Detailed Discussion pages (attached).								
<ul> <li>No potential on-site contaminant sources that w necessary.</li> </ul>	vould impact soils were identified during research activities. Soil management recom	mendations are not deemed							
• Volatile organic compounds and semi-volatile organic compounds were not detected in concentrations in ground water that would likely require special handling or treatment.									
especially during deep excavations (e.g., tremie	• Significantly elevated metals concentrations were detected in the ground-water samples collected. Therefore, water generated during construction of the project, especially during deep excavations (e.g., tremie displacement of water during drilling of caissons), must be immediately containerized for proper off-site disposal. Ground water must not be allowed to be discharged onto the ground, or into sanitary or storm sewers, or any surface water body or Waters of the State.								
paint. Further, the contractor must avoid sanding	four paint colors observed on the bridge. Thee selected contractormust be notified the ground content of the content of the paint on bridge componed the consulted for worker protection prior to removal of painted comaccordance with CDOT Specification 250.04.	ponents. These should be removed							
<ul> <li>The contractor must follow CDOT Specification the ground-water level (approximately 35 feet).</li> </ul>	n 250 – Environmental, Health and Safety Management during excavation activities a	t this project at depths that approach							
Recommendations:									
✓ Materials Management Plan ☐ Force	Account Modified CDOT Specification(s) Additional Assessment/Invest	tigation *							
See attached Detailed Discussion for recommen	dations.								
* - Additional work must be approved by CDOT. <b>Attachments:</b>									
Environmental Database Map	Yes Satisfi, Inc. Environmental FirstSearch Database, dated April 7, 2011								
Modified CDOT Specification(s)	Yes								
General Plan Note(s)	☐ Yes								
Site Photographs	✓ Yes Photographic Log								
Maps & Figures	✓ Yes Figures 1 and 2								
Agency File Data	☐ Yes								
Detailed Discussion	✓ Yes Attached								
Table 1	✓ Yes Detailed Agency Listings								
City Directories	Yes								
•	Yes								
Completed by (Name and Title): Brian Parti	ngton, Pinyon Environmental Engineering Resources, Inc.								
Signature:	Date: <u>12/12/2011</u> Revised (if necessary):								
CDOT Environmental Project Manager App	roval:Date	ə:							

#### Introduction

The proposed project consists of replacing the bridge on U.S. Highway 6 over the BNSF Railway (BNSF) railroad in the City and County of Denver. Wilson and Company has been retained to evaluate project alternatives, grading and foundation plans for this project. It is anticipated that all work will be completed within Colorado Department of Transportation (CDOT) right of way (ROW).

#### Methods

Pinyon has completed an Initial Site Assessment (ISA) of the study area to evaluate the potential for hazardous materials or petroleum products that may have been released into the subsurface to impact the project. Pinyon utilized the ISA methods developed by the Colorado Department of Transportation (CDOT) to complete this assessment. The following was conducted for the project:

- Reconnaissance survey of the Site and surrounding area on August 22, 2011, to evaluate present conditions;
- Review of the compliance history of the Site, and of any adjacent sites, as identified by an environmental regulatory database search (Satisfi, Inc.);
- Review of records reasonably available from appropriate federal, state and local regulatory agencies for documented soil and/or ground-water contamination investigations conducted at the Site and the vicinity, as identified by an environmental regulatory database search (Satisfi, Inc.);
- Review of historic Sanborn fire insurance maps;
- Paint samples for the analysis of lead were collected from areas of the steel beams underneath the bridge, near the top of the bridge abutment. The paint samples were collected using a chisel or a knife. Each sample was logged on a field sampling form. Four colors of paint were observed: silver, red, brown and gray. The following nomenclature was assigned to the samples:
  - o PC-1: silver paint the bridge beams
  - o PC-2: red paint on the bridge beams
  - o PC-3: brown paint on the bridge beams
  - o PC-4: gray paint on the bridge beams

One paint chip sample of each color of paint identified from the bridge was collected and submitted to Reservoirs Environmental Laboratory (Reservoirs) for lead analysis. Reservoirs is accredited by the American Industrial Hygiene Association for metals analysis through the Environmental Lead Proficiency Analytical Testing (ELPAT)-Environmental Lead Laboratory Accreditation Program for environmental samples and Proficiency Analytical Testing (PAT) - Industrial Hygiene Laboratory Accreditation

Program for industrial Hygiene samples. Reservoirs operates under AIHA Certificate #480 and laboratory ID #101533. The samples were analyzed using the Atomic Absorption Spectroscopy (AAS)/Atomic Spectroscopy (AES)/Atomic Emission Spectroscopy - Inductively couples Plasma (AES-ICP).

• A sample was collected from a suspect material (caulking on south bridge pier) observed on the bridge for analysis of asbestos. The asbestos sampling was completed by an Environmental Protection Agency (EPA) accredited Asbestos Hazard Emergency Response Act ((AHERA); 40 CFR763) and state of Colorado certified inspector. The sample was collected following AHERA procedures using a utility knife. The sample was assigned a unique number and logged on a field sampling form.

The asbestos sample was then delivered to Reservoirs. A chain-of-custody form was submitted with the samples. Reservoirs is certified by the National Institute of Standards and Technology (NIST) and is a participant under the National Voluntary Laboratory Accreditation Program (NVLAP). The asbestos sample was analyzed using polarized light microscopy (PLM).

- Based on preliminary research completed in support of this ISA, Pinyon collected ground-water samples from two soil borings that were completed in support of a the geotechnical investigation by Geocal, Inc. (Geocal). The borings, B-1 and B-6, were located at the location of future deep excavation areas, (e.g., bridge caissons) (Figure 2). Boring B-1 was drilled and sampled on October 31, 2011, and is located down-gradient of the bridge, and boring B-6 was drilled and sampled on November 9, 2011, and is located up-gradient of the bridge. The following methods were utilized to collect ground-water samples:
  - O Drilling was subcontracted by Geocal using hollow-stem auger (HSA) techniques. Water was encountered at a depth of approximately 35 feet below ground surface (bgs) in each boring. After advancing to a depth of 40 feet bgs, a ground-water sample was collected from each of the two borings from within the drill augers using disposable bailers.
  - each sample was containerized in appropriate bottles provided by the analytical laboratory, labeled, and placed on ice in a cooler. The samples were submitted to TestAmerica of Arvada, Colorado, for analysis of typical dewatering parameters utilizing Clean Water Act parameters, including volatile organic compounds (VOCs) by EPA Method 624, semi-volatile organic compounds (SVOCs) by EPA Method 625, and potentially dissolved metals and total recoverable metals by EPA Methods 200.7, 200.8 and 254.1. Metals included the following: aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium (III and VI), copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, uranium and zinc. Samples were also analyzed for total suspended and

dissolved solids (TSS and TDS, respectively), by method SM20 2540C and D, respectively.

The following attachments are made part of this ISA:

- 1. Satisfi, Inc. Environmental FirstSearch Database, dated May 26, 2011
- 2. Figure 1 Site Location
- 3. Figure 2 Site Plan
- 4. Table 1 Details of Identified Agency Listings
- 5. Table 2 Ground-Water Analytical Results and Surface-Water Discharge Permit Limits Metals Parameters
- 6. Table 3 Ground-Water Analytical Detection Results and Surface-Water Discharge Permit Limits Organics Parameters
- 7. Table 4 Ground-Water Analytical Results and Surface-Water Discharge Permit Limits Other Parameters
- 8. Reservoirs Environmental, Inc. Lead-Paint Analytical Report, dated August 25, 2011
- 9. Reservoirs Environmental, Inc. Asbestos Analytical Report, dated August 25, 2011
- 10. TestAmerica Analytical Report, dated November 11, 2011
- 11. TestAmerica Analytical Report, dated November 29, 2011
- 12. Site Photographic Log

#### **Results**

The subject property is located in an urbanized and industrial portion of the City and County of Denver. The project area is made up primarily of paved roadways, with a portion of the Site located over BNSF railroad tracks.

*Hydrology:* The depth to ground water is expected to be between 5 and 14 feet bgs from the bottom of the road embankment near the existing BNSF tracks, (Pinyon, 2001), and deeper from the U.S. 6 roadway due to embankment material thickness. Typically, ground-water flow direction mimics topography; therefore, ground water is expected to flow in a west/northwesterly direction towards the South Platte River (USGS, 1994a and b; USGS, 1996).

Database Facilities: The agency database identified 100 facilities within one mile of the project, based on ASTM search standards. Pinyon reviewed sites that were in close proximity to the study boundaries, with particular emphasis on sites that could have contaminated areas that would be encountered during construction of this project. Of particular concern were sites that could impact the project during deep excavation (i.e., drilling of caissons which would support bridge abutments), or proximate to areas where shallow excavation could occur. During review of the Satisfi database, nine off-site facilities were identified for further discussion. The locations of these facilities are presented on the attached Figure 2. The nomenclature of each facility is consistent with those presented in the Satisfi database. The following is a discussion of each:

8. 590 Quivas Street – This facility (PPG Industries, Inc.) is an underground storage tank facility (UST) facility and a generator of hazardous waste. One former underground

storage tank operated at the facility. The tank was installed in 1969 and contained 2,000gallons of gasoline. The tank was last used in 1987, and the closure method is unknown. It is unknown whether there were any releases from the tanks.

The facility is also listed as a former generator for ignitable waste, corrosive waste and spent halogenated solvents. There are no releases or violations reported at the facility for these items. This facility is located up-gradient of the Site; therefore, it is possible that the Site could have been impacted in the event a release occurred and not reported.

- 9. 1701 West 6<sup>th</sup> Avenue This facility is listed as a Spill facility. The event occurred in October 1997. A caller stated that while digging, ground water came in and diesel fuel was observed on the top of the water. The caller stated that the Site is next to the railroad, and that the railroad has reported several spills in the past. There was no information regarding cleanup activities. This facility is located up-gradient of the Site and it is possible the Site has been impacted.
- 11. 595 Quivas Street This facility is listed as Conrad's Inc., and is a leaking underground storage tank (LUST) and UST facility. The Division of Oil and Public Safety (OPS) website indicates two tanks were installed at an unknown time. One tank was approximately 2,000 gallons in size and the other was an unknown size. Contents of each tank are unknown. A confirmed release was reported at the Site in 1996. The OPS issued a closure letter for the facility on August 14, 1997; therefore, based on cleanup activities to the satisfaction of the lead regulatory agency, the project is not likely to be impacted by this facility.
- 12. 555 Quivas Street This facility, Dupont DeNemours and Co., is listed as a former generator of hazardous waste. The facility is listed as a former generator for ignitable waste, corrosive waste and spent non-halogenated solvents. The facility is no longer reporting as a generator and no spills or releases have been documented. This facility is located up-gradient of the Site; therefore it is possible that the Site could have been impacted in the event a release occurred and not reported.
- 13. and 21. 4<sup>th</sup> and Navajo Street A Spill was reported at the Southern Pacific Railroad property by a caller who stated that oil was bubbling out of the ground and pooling on a gravel road. There was no information in the database regarding the specific location of this condition, the source of contamination, or cleanup activities. Heavy-rail activities are ongoing east of the project area, over 1,500 feet east of the Site bridge. It is possible that the Site has been impacted by past and/or current rail activities in the vicinity.
- 24. 5<sup>th</sup> and Osage Streets A LUST was identified in the agency database at this location; however, the OPS files for this facility are incomplete. This facility is potentially located hydro-geologically up-gradient of the Site, and a release from this facility could impact the Site.

- 25. 490 Osage Street A UST and LUST have been recorded at this property. No specific information regarding the UST was identified with the OPS. A release was reported in 1991, and corrective actions followed. The OPS issued a No Further Action letter on October 28, 1993. This facility is located hydro-geologically up-gradient of the Site; however, based on cleanup actions completed, it is not likely to have impacted the Site.
- 36. 500 Quivas Street This facility is listed as a Spill facility. The event occurred in February 1997. The building department stated that during drilling of borings to get soil parameters stained soils and hydrocarbon odors were encountered. There was no information regarding cleanup activities. This facility is located up-gradient of the Site and it is possible the Site has been impacted.
- 43. 501 Raritan Way This facility is listed as a UST and a former generator facility. The UST was operated by Associated Stationer, Inc., and the installation date of the tank is unknown. The OPS indicates that it was removed from the facility in 2001. The tank was approximately 2,000 gallons in size and contents are unknown. No releases have been reported at the facility.

The facility is also listed as Fuji Photo Film USA, is listed as a former generator for silver waste. There are no releases or violations reported at the facility. This facility is located up-gradient of the Site; therefore, it is possible that the Site could have been impacted by this facility.

A significant number of other facilities were reported in the Satisfi database near the subject project (Satisfi); however, based on the status of the listings reviewed, distances, and hydrogeologic relationships of those facilities to the project, it is unlikely that those facilities will impact the project.

Other Site: 6<sup>th</sup> and Osage – This facility is not listed specifically in the agency database. The City and County of Denver (CCoD) completed an evaluation for the presence of free-phase hydrocarbons reportedly located on ground water in a large area within the project vicinity (CCoD, 2002). It has been reported that at least three ground-water diesel plumes are located in the vicinity of 6<sup>th</sup> and Osage, all from unknown sources. The CCoD completed an investigation of approximately 74 acres in size east of the subject site, which included collection of several soil and ground-water samples. Investigations indicated that up to three feet of free-phase hydrocarbons are located on ground water, and ground water tends to flow toward the west and the South Platte River. Investigations have also indicated that a storm-water ditch immediately northeast of the subject bridge may have been historically impacted by hydrocarbons, likely the result of ground-water seepage. The results of the investigation indicated the contamination is likely the result of historic releases, most likely the result of historic railroad operations at the Burnham Yard where very large fuel tanks were historically operated, and possibly other sources east of the site. There was no direct investigation completed at the site.

Pinyon contacted Cindy Smith with the Colorado Department of Public Health and Environment (CDPHE) Solid Waste Division, Kelly Jackues with the CDPHE Water Quality Control Division

(WQCD), Walter Avramenko with the CDPHE Hazardous Waste Corrective Action Unit, and Fonda Apostolopoulos with the CDPHE Voluntary Cleanup Program regarding this issue. All indicated that they were aware of the problem, but that the CDPHE did not have the regulatory authority to pursue this issue as a potential responsible party has not been identified, and that the contaminants were likely released prior to most environmental regulations. None were aware of any other specific public information regarding this facility other than the investigation completed by the CCoD.

Sanborn Fire Insurance Maps: Sanborn maps were reviewed; however, Pinyon did not identify any detailed maps for the immediate project area. The map key indicated that the Site and vicinity was a portion of the "Fletchers West Side Subdivision" and the "Middaugh's Addition" subdivision. The closest detailed maps were located for the area around the rail yards east of the project area.

Lead Paint: Three of the four paint chips collected at the Site contained lead. The silver paint (PC-1) contained lead at 0.07 percent (%); the brown paint (PC-3) contained 7.246% lead; and the gray paint (PC-4) contained lead at 2.693%. Lead was not identified in the red paint (PC-2).

Asbestos-Containing Materials: The caulking identified on the south bridge piers did not contain asbestos.

#### Ground Water:

Sampling of ground water in the project area was completed to support the application of future dewatering permits which will be required to be obtained by the future contractor. Anytime that ground water is discharged to the surface, the surface water regulations become the overriding limits with regard to levels of contaminants that can be discharged to a surface water body. As such, a broad screen ground-water analysis, including VOCs, SVOCs, total recoverable metals, potentially dissolved metals, TSS and TDS, was conducted. Attached to this ISA are the laboratory analytical reports, including Chain of Custody forms. The following discussion presents the results of the analysis:

Metals: The results of the metals analysis were compared to the CDPHE surface-water standards (Table 2). Based on the project location, discharge will most likely be to Segment 14 of the South Platte River. Based on this information, the first hierarchal regulation is Regulation 38 for inorganic constituents (metals) (CDPHE, 2011a), followed by Regulation 31 (CDPHE, 2011b). Note that only acute standards, and not chronic standards, were examined during this investigation, since the construction project is anticipated to be of limited duration.

If no value was listed for a given metal, table value standards (TVS) from Regulations 31 and 38 for acute aquatic life impacts were used. For example, Segment 14 has a numeric limitation for arsenic, whereas other metals such as cadmium and copper have a TVS from Regulations 31 and 38. If no numeric value from Regulation 38, or acute TVS from Regulations 31 and 38 are given for a specific constituent, then either the Regulation 31 "water+fish" standard or the domestic water-supply (DWS) standard applies, in that order. Most of the Regulation 31 and 38 TVSs are based on a mathematical formula with

the current stream hardness as the variable. The Metro Wastewater Reclamation District (MWRD) collects regular hardness data from the South Platte River. The nearest sample location to the project area identified is near the confluence of Clear Creek, approximately 100 yards up-river from Clear Creek, and the most recent data available was collected on December 1, 2010. At that time, the hardness was measured at 251 milligrams per liter (mg/L). Therefore, for this project, 251 mg/L was utilized as the variable. It is possible that more recent hardness data is available from another source; however, at the time of this investigation, no other data was identified. Potential permit limits could be amended with more appropriate hardness date, if available.

Ground-water sample results collected at the Site indicate that ground water contains concentrations of aluminum, barium, beryllium, copper, iron, lead, selenium, thallium and zinc at concentrations exceeding potential CDPHE discharge limits (Table 2). It is not clear where the source(s) of these contaminants is; however, it appears that the source(s) is from an off-site and up-gradient location. Elevated metals concentrations in ground water tend to be a persistent problem in the project vicinity, likely the result of various historic industrial land uses.

Elevated concentrations of arsenic were also detected in the samples collected. The concentrations do not exceed potential acute (limited duration) discharge limits. However, depending on the quantity of discharge (e.g., chronic, or long-term discharge), it is possible that a significantly lower permit limit would be enforced by the CDPHE for arsenic. This standard is currently under review by the CDPHE.

- <u>VOCs</u>: Four VOCs were detected at concentrations below the laboratory reporting limits, but above the laboratory method detection limits (Table 3). The only compound with a potential permit limit was chloroform. The concentration detected was below the potential permit limit. Chloroform is often detected in ground water; it is often present as the result of leaking potable water lines. The other compounds detected do not currently have permit limits.
- SVOCs: Three SVOCs were detected within the project area (Table 3). Two compounds, naphthalene and diethyl phthalate, were detected at concentrations well below potential permit limits. The third compound, bis (2-ethylhexyl) phthalate, was detected at a concentration slightly exceeding the potential permit limit. However, this compound was also detected in the laboratory blank sample at concentrations similar to those detected in the samples submitted (Table 3). This chemical is widely used as a plasticizer in PVC and other plastic products, and is a common laboratory contaminant. Therefore, as the concentrations noted in the ground-water samples and blank samples were similar, it is likely that those detections were not the result of a ground-water issue, but rather the result of a laboratory contaminant, which is not unusual.
- TSS concentrations exceed potential discharge limits, which is not uncommon considering the methods utilized in sample collection. No TDS permit limits are available.

#### **Conclusions and Recommendations**

- No potential on-site contaminant sources that would impact soils were identified during research activities. Soil management recommendations are not deemed necessary.
- VOCs and SVOCs were not detected at concentrations in ground water that would likely require special handling or treatment.
- Significantly elevated metals concentrations were detected in the ground-water samples
  collected. Therefore, water generated during construction of the project, especially
  during deep excavations (e.g., tremie displacement of water during drilling of caissons),
  must be immediately containerized for proper off-site disposal. Ground water must not
  be allowed to be discharged onto the ground, or into sanitary or storm sewers, or any
  surface water body or Waters of the State.

Lead-based paint was identified in three of the four paint colors observed on the bridge. Pinyon recommends that the selected contractor be notified that these are painted with lead-based paint. Further, Pinyon recommends that the contractor avoid sanding, cutting, burning, or otherwise causing the release of lead from paint on bridge components. These should be removed carefully and properly recycled. OSHA Regulation 1926.62 should be consulted for worker protection prior to removal of painted components. All painted bridge components should be removed and recycled in accordance with CDOT Specification 250.04.

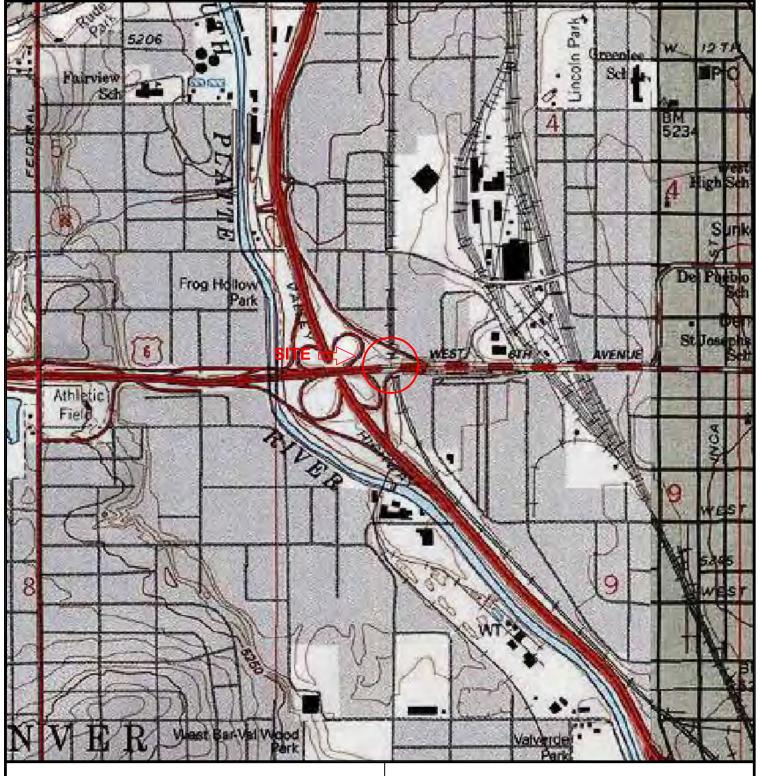
• The contractor must follow CDOT Specification 250 – Environmental, Health and Safety Management during excavation activities at this project at depths that approach the ground-water level (approximately 35 feet). A Materials Management Plan should be developed by the Contractor which details the methods that will be utilized to manage contaminated groundwater generated during construction activities. The MMP should also address management of soil that is generated which could also be impacted due to contact with groundwater.

#### References

CCoD, 2002. "Source Area Evaluation and Site Investigation Report for the 6<sup>th</sup> and Osage Site, Denver, Colorado," Prepared by the City and County of Denver Department of Environmental Health, December 27, 2002.

CDPHE, 2011a. Regulation No. 38 – Classifications and Numeric Standards for South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin (5 CCR 1002-38), Colorado Department of Public Health and Environment, Water Quality Control Commission, Effective June 30, 2011.

- CDPHE, 2011b. Regulation No. 31 The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31), Colorado Department of Public Health and Environment, Water Quality Control Commission, Effective January 1, 2011.
- Pinyon, 2001. "Phase II Environmental Site Assessment of Sears Warehouse and Adjacent Property, 701 Osage Street, Denver, Colorado," Pinyon Environmental Engineering Resources, Inc., August 7, 2001.
- USGS, 1994a. "7.5 Minute Topographic Map, Englewood Quadrangle, Colorado," United States Geologic Survey, 1964, photorevised 1994.
- USGS, 1994b. "7.5 Minute Topographic Map, Fort Logan Quadrangle, Colorado," United States Geologic Survey, 1964, photorevised 1994.
- USGS, 1996. "Geohydrology of the Shallow Aquifers in the Denver Metropolitan Area, Colorado," United States Geologic Survey, Atlas HA-736, 1996.





USGS 7.5' Topographic Maps Englewood 1997 Fort Logan 1965 (Revised, 1994)



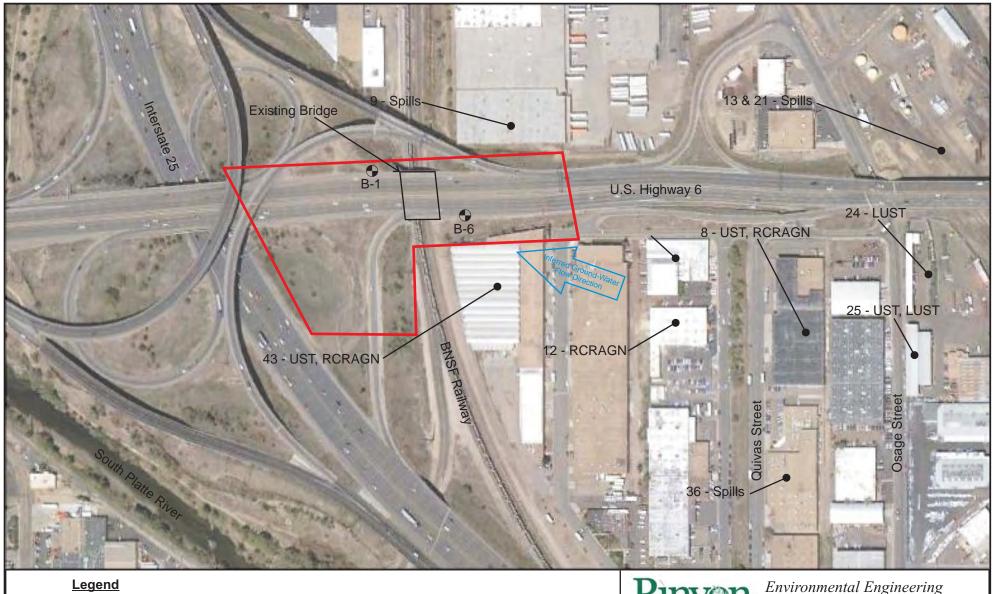
# Pinyon

Environmental Engineering Resources, Inc.

### SITE LOCATION

US 6 Bridge over BNSF Railroad Denver, Colorado

Site Location: Section 4, Township 4S, Range 68W, 6th Principal M	Drawn By: SLS	Figure 1
Z:\PROJECTS\11137801\ US 6 Bridge over BNSF RR\Autocad Figures\Figure1.dwg	Reviewed By: SML	Revision 0



Study Boundaries

9 - Spills Agency Database Listing Number and Type (see Satisfi Database for details)

B-1 Boring Where Ground-Water Sample Collected

Scale in Feet

150 0 150 300

# Pinyon

Environmental Engineering Resources, Inc.

#### SITE PLAN

U.S. 6 Bridge over BNSF Denver, Colorado

Site Location: Section 4, Township 4 South, Range 68 West, 6th Principal Meridian

Z:\Projects\11137801 US 6 Bridge over BNSF RR\Initial Site Assessment\14Sept Version\Figure 2.cdr

Job No. 1/11-378\*-01.8000

Reviewed by: JNA
Revisions: 0

TABLE 1
Details of Identified Agency Listings

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
1	Denver Radium Site 94	Various Places In Denver	>1000 Southeast	NPL	No
2	Regional Transportation District	655 Mariposa St	>1000 East	LUST, RCRAGN, UST	No
3	The Glidden Co	637 Osage St	650 Northeast	RCRAGN	No
4	Union Pacific Rr Co Burnham Shops	680 Seminole Rd	750 Northeast	UST, RCRAGN	No
5	Devoe Paint	657 Osage St	800 Northeast	UST	No
6	Petry Vappi Construction Co	646 Mariposa	1700 East	UST	No
7	Sears Warehouse	701 Osage St	350 Northeast	RCRANLR, UST	No
8	Ppg Industries Inc	590 Quivas St	600 East/southeast	RCRANLR, UST	Yes
9	Unknown	1701 West W. 6Th Ave	Adjacent north	SPILLS	Yes
10	Neiman Salvage Yard	West Just Of 7Th And Mariposa	>1800 East	ERNS	No
11	Conrads Warehouse	595 Quivas	200 Southeast	LUST, UST	Yes

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
12	Dupont De Nemours And Co	555 Quivas St	300 Southeast	RCRANLR	Yes
13	Southern Pacific Railroad	1 North Block Of 4Th And Navajo Str	1600 Southeast	SPILLS	Yes
14	Cook Mechanical Systems	630 Lipan St	2000 East	UST, LUST	No
15	Unknown	1155 West 5Th Ave	1600 East	UST	No
16	S And W Painting And Decorating	575 Lipan St	2000 East	RCRANLR	No
17	Jebco Heating And Air Conditioning	666 Lipan St	2000 East	LUST, UST	No
18	Robert Ohowell Property	550 Lipan St	2000 East	UST	No
19	Denver Radium Site 95	Various Places In Denver	2000 East	NPL	No
20	Mile Hi Body Shop Inc	519 Lipan St	1900 East	RCRAGN	No
21	Incident 343954	1 North Block Of 4Th And Navajo Str	1600 Southeast	ERNS	Yes
22	D And S Wholesale	515 Lipan	2000 Southeast	UST	No

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
23	Rio Grande Co Residential Products	500 Osage St	1000 East	LUST, UST	No
24	5Th And Osage	5Th And Osage	1000 East	LUST	Yes
25	Champion Fence Co	490 Osage St	1000 East/Southeast	UST, LUST	No
26	Masters Studio	1140 West 5Th Ave	2000 East	UST, LUST	No
27	Roderick R Brown Property	751 Mariposa St	2000 Northeast	UST	No
28	Denver Radium Site 94	Various Places In Denver	1800 East/Southeast	CERCLIS	No
29	Denver Radium Site 95	Various Places In Denver	1800 East/Southeast	CERCLIS	No
30	Neiman S Industrail Recycling	730 Navajo	1700 Northeast	UST, RCRANLR	No
31	Incident 209022	1046 West 5Th Ave	2200 East/Southeast	ERNS	No
32	Craig And Assoc	745 Lipan St	2100 East/Northeast	UST, LUST	No
33	Denver And Rio Grand Railroad	West W. 8Th And Osage Ave	1400 North	ERNS	No
34	Denver And Rio Grande Rr	8Th And Osage	1400 North	SPILLS	No

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
35	7Th And Osage	7Th And Osage	1000 Northeast	LUST, UST	No
36		500 Quivas	900 Southeast	SPILLS	Yes
37	Kalamath Associates Property	570 Kalamath St	2500 East	UST, LUST	No
38	Fuel Facility	775 Mariposa	2100 East	UST	No
39	Stand By Inc	665 Kalamath St	2300 East	UST	No
40	Union Pacific Railroad	800 Seminole Rd	900 Northeast	LUST, RCRANLR, SPILLS, ERNS, UST	No
41		658 Kalamgh	2500 East	ERNS	No
42		West W. 8Th And Mariposa Ave	2000 East/Northeast	SPILLS	No
43	Fuji Photo Film Usa Inc	501 Raritan Way	Adjacent to South	UST, RCRANLR	Yes
44	W Ray Crabb	471 Kalamath	2600 East/southeast	RCRANLR	No
45	B^R Screen Graphics	1045 W 8Th Ave	2500 East/Northeast	RCRAGN	No

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
46	Us Auto Body And Paint	450 Kalamath St	>2500 East	RCRAGN, RCRANLR	No
47	Adco General Corporation Property	1021 West 8Th Ave	>2500 East	LUST, UST	No
48	Rickenbaugh	444 Kalamath	>2500 East	RCRAGN	No
49	Cintas Corporation	545 Santa Fe Dr	>2500 East	RCRANLR	No
50	6Th And Santa Fe Conoco	571 Santa Fe Dr	>2500 East	LUST, UST	No
51	Boyd Distributing Co	340 Navajo St	2000 Northeast	UST	No
52	Sixth And Santa Fe Car Wash	603 Santa Fe Dr	>2500 East	LUST, UST	No
53	Boyd Distributing	340 Navajo St	2000 Northeast	LUST	No
54	Sherwin-Williams	543 Santa Fe Dr	>2500 East	RCRAGN	No
55	Incident 368399	545 North Santa Fe St	>2500 East	ERNS	No
56	Stafab	860 Navajo	2000 Northeast	SWL	No
57	A-B Petroleum 22	620 Santa Fe Dr	>2500 East	UST	No

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
58	Carlos 66	800 Kalamath St	>2500 East	UST, LUST	No
59	Known Landfill	South Boundaries Approximate: N Of	1700 South	SWL	No
60	Boyd Distributing Co	350 Osage St	2000 South	LUST	No
61	Stout Street Foundation	875 Navajo St	2000 Northeast	LUST	No
62	Bp Investment	330 Quivas St	1500 South	LUST	No
63	Dick Lesnick	866 Lipan	>2500 East	LUST	No
64	Carter Lubrication Aka Grease Monke	901 West 8Th Ave	>2500 East	LUST	No
65	Murray Distributing Co Inc	1505 West 3Rd Ave	>2500 Southwest	LUST	No
66	Rtd	301 Kalamath St	>2500 Southeast	LUST	No
67	Elms Investment Property	730 Umatilla St	700 North	LUST	No
68	Waste Water Mgmt	3Rd Ave And S Platte River Dr	1200 South	LUST	No
69	740 Investors	740 Umatilla St	850 North	LUST	No

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
70	Newstrom-Davis Construction Co	2000 West 8Th Ave	1300 North	LUST	No
71	Ts Gas	801 West 8Th Ave	>2500 East	LUST	No
72	Alert Polishing And Plating	345 Santa Fe Dr	>2500 East	RCRACOR	No
73	Known Landfill	West Boundaries Approximate: N: W	1300 South	SWL	No
74	3Rd And Kalamath St Property	300- 304 Kalamath St	>2500 Southeast	LUST	No
75	Lincoln Plating Company	777 Umatilla	1000 North	RCRATSD, RCRACOR	No
76	Industrial Hard Chrome Plating Co.	919 North Santa Fe Dr	>2000 Northeast	NFRAP	No
77	H And M Investments	900 Santa Fe	>2000 Northeast	LUST	No
78	7-Eleven 27620	303 North Santa Fe Dr	>2500 Southeast	LUST	No
79	Lipan Garage	243 Lipan St	>2500 Southeast	LUST	No

# TABLE 1 (continued) Details of Identified Agency Listings

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
80	Wastewater Management Facility	2000 West 3Rd Ave	1200 South	LUST	No
81	Known Landfill	At 4Th And Vallejo St	1000 Southwest	SWL	No
82	10Th And Osage Properties Ii	1001 Osage St	>2500 Northeast	VCP, LUST	No
83	Boys And Girls Club Of Denver	901 Tejon St	>2500 North	LUST	No
84	Heb S Service	2214 West 8Th Ave	>2500 Northwest	LUST	No
85	Denver Radium Site	Various Places In Denver	<2500 Northwest	NPL	No
86	Baker Middle School	574 West 6Th Ave	>2500 East	LUST	No
87	Amick Moving And Storage	1029 Santa Fe Dr	>2500 Northeast	LUST	No
88	Wylaco Supply Co	295 Vallejo	1200 South	LUST	No
89	Denver Radium Site-Ou 9A	Various Places In Denver	>2500 North	NPL	No
90	Adco General Corp	1080 Kalamath	>2500 Northeast	LUST	No

### **TABLE 1 (continued) Details of Identified Agency Listings**

Site Number <sup>1</sup>	Facility Name	Facility Address	Distance/Direction from Site	Database	Potential to Impact Site? <sup>2</sup>
91	Katzson Brothers Inc	960 Vallejo St	>2500 Northwest	RCRACOR	No
92	Gandk Service Incorporated	999 Vallejo St	>2500 Northwest	RCRACOR	No
93	Denver Radium Site 97	Various Places In Denver	>2500 Northwest	NPL	No
94	Denver Radium Site-Ou 7C	Various Places In Denver	>2500 Northwest	NPL	No
95	Denver Radium Site-Ou 7B	Various Places In Denver	>2500 Northwest	NPL	No
96	Denver Radium Site-Ou 10	Various Places In Denver	>2500 Northwest	NPL	No
97	Safety-Kleen Systems Inc	1345 West Bayaud Ave	>2500 Northwest	RCRACOR	No
98	Mallow Plating Works Inc	118 South Pecos St	>2500 Northwest	RCRACOR	No
99	Psco - Barters Lot C	701 West W. Bayaud Ave	>2500 Southeast	RCRACOR	No
100	Eversman Manufacturing Co	1145 5Th St	>2500 Northwest	RCRACOR	No

Notes:

PINYON Environmental Engineering Resources, Inc.
Phase I Environmental Site Assessment

# TABLE 1 (continued) Details of Identified Agency Listings

1	Four unmappable facilities were identified. Based on the partial address provided, it is unlikely that this facilities are located within the search radius, or would impact the Site.								
2	Potential assessed is based on depth and direction of ground-water flow, and distance from Site.								

# Table 2 Ground-Water Analytical Results and Surface-Water Discharge Permit Limits - Metals Parameters South Platte River Segment 14 U.S. 6 and BNSF, Denver, Colorado

		Sample Date C	Location ollected		Potential Permit Limit - Acute Values (μg/l)					
Metals	B-1 10/31/11		B-6 11/09/11		Hierarchal Limits from Left to Right			Right	Formulas for Acute TVS Values (Reg 31) / Other Notes	
	Total Recoverable (µg/l)	Potentially Dissolved (µg/l)	Total Recoverable (µg/l)	Potentially Dissolved (µg/l)	Reg 38 Numeric	Acute TVS (Reg 31 & 38)	water+fish (Reg 31)	DWS (Reg 31)		
Aluminum	5,700	4,300	130,000	3,700		12,063.12			Acute = e(1.3695[In(hardness)] + 1.8308) (applies to total recoverable results)	
Antimony	0.25 J	<2.0	0.22 J	0.43 J			5.6	6		
Arsenic	55	7.2	58	12	340.00		0.02	0.02	Note - acute from Reg 38	
Barium	1800	1000	2100	510				1,000	Note that only acute Ba level given is DWS	
Beryllium	17	6.7	9.5	4.3				4	Note that only acute Be level given is DWS	
Cadmium	3.4	1.3	1.6	0.97 J		6.10		5	$Acute\ TVS = (1.136672 - [ln(hardness)\ x\ (0.041838)]) * e(0.9151[ln(hardness)] - 3.1485)$	
Chromium III	0.17	NA	0.087	NA	50.00	1210.69		50	Acute TVS = $e(0.819[ln(hardness)]+2.5736)$	
Chromium VI (Hexavalent)	< 0.020	NA	0.0061 J	NA			100	50		
Copper	280	60	120	36	83.16	31.99	1,300	1,000	Acute TVS = e(0.9422[ln(hardness)]-1.7408) - Reg 38 is TVS*2.6 below Sand Creek Water Reuse Facility Outfall	
Iron	4,600	3,100	200,000	7,400				300	note that only acute Fe level given is DWS (in dissolved-phase only), Fe chronic = 1,000*Trec	
Lead	250	43	100	27		173.07		50	$Acute\ TVS = (1.46203-[ln(hardness)*(0.145712)])*e(1.273[ln(hardness)]-1.46)$	
Manganese	3,400	1,800	1,300	900		4,056.71		50	Acute TVS = $e(0.3331[ln(hardness)]+6.4676)$	
Mercury	0.17 J	< 0.20	0.65	< 0.20				2	Note that only acute Hg level given is DWS, Hg chronic = 0.01*Tot	
Molybdenum	3.1	2.5	6.2	3.6				210		
Nickel	130	19	62	16		1019.97	610	100	Acute TVS = $e(0.846[ln(hardness)]+2.253)$	
Selenium	7.5	3.7	31	6.3		18.40	170	50		
Silver	0.73 J	<1.0	0.45 J	<1.0		9.88		100	Acute TVS = $\frac{1}{2}$ e(1.72[ln(hardness)]-6.52)	
Thallium	3.1	<0.066 U	1.4	<0.066 U			0.24	0.5	Note - chose most stringent acute value	
Uranium	58	16	48	30		6,623.65		16.8	Acute TVS = $e(1.1021[ln(hardness)]+2.7088)$	
Zinc	1000	260	420	160		369.48	7400	5,000	Acute TVS = 0.978 e(0.9094[ln(hardness)]+0.9095)	

Notes.

Hardness-Dependent Value for River Segment = 251 mg/L utilized from MWRD sample located at South Platte River 100 yards upriver from confluence of Clear Creek, collected 12/01/10

Permit Limit highlighted in green

Value potentially exceeds discharge permit limit

TVS = table value standard

DWS - domestic water supply limit

dis = dissolved

<sup>1</sup> - Depending on the quantity of construction discharge, this may be the permit level

< = indicates a result less than the method detection limit

 $J = Indicates \ a \ result \ greater \ than \ the \ method \ detection \ limit \ but \ less \ than \ the \ reporting \ limit$ 

 $U = Indicates \ a \ result \ lower \ than \ reporting \ limit \ and \ method \ detection \ limit$ 

Trec - Total Recoverable

Hg-Reg 38 Numeric is for chronic

NA - Not Applicable

μg/l - micrograms per liter

#### Table 3

# Ground-Water Analytical Detection Results and Surface-Water Discharge Permit Limits - Organics Parameters South Platte River Segment 14 U.S. 6 and BNSF, Denver, Colorado

	_	Location ate	Potential Permit Limit - Acute Values (µg/l)  Hierarchal Limits from Left to Right			
Parameter	B-1 10/31/11	B-6 11/9/11	Reg 38 Numeric	Acute TVS (Reg 31 & 38)	water+fish (Reg 31)	DWS (Reg 31)
Volatile Organic Compounds				<u> </u>		
Acetone	<20.0	2.5 J	NS	NS	NS	NS
Chloroform	<1.0	0.21 J	NS	NS	3.4	NS
Xylenes (total)	<2.0	0.48 J	NS	NS	NS	NS
Methyl tert butyl ether	2.9 J	<20.0	NS	NS	NS	NS
Semi-Volatile Organic Compounds						
Bis(2-ethylhexyl) phthalate	2.9 J B	2.5 J B	NS	NS	1.2	2.5
Bis(2-ethylhexyl) phthalate (Laboratory Blank Sample Results)	2.7 J	2.6 J	NA	NA	NA	NA
Naphthalene	<0.28 U	0.36 J	NS	NS	140	140
Diethyl phthalate	<0.36 U	0.69 I	NS	NS	5600	5600

#### Notes:

- < = indicates a result less than the method detection limit
- J = Indicates a result greater than the method detection limit but less than the reporting limit
- B = Compound detected in the blank sample
- $U = Indicates \ a \ result \ lower \ than \ reporting \ limit \ and \ method \ detection \ limit$
- NA Not Applicable
- NS No Standard

#### Table 4

# Ground-Water Analytical Detection Results and Surface-Water Discharge Permit Limits - Other Parameters South Platte River Segment 14 U.S. 6 and BNSF, Denver, Colorado

	B-1	B-6	Discharge Limit					
Parameter	10/31/11	11/9/11	30-day average	7-day average	Daily Max	Method		
Total Suspended Soilds (mg/l)	12,000	9400	30	45	NA	weekly/grab		
Total Dissolved Solids (mg/l)	720	930	NA	NA	Report	monthly/grab		

Notes:

1 - Field measurement

NA - Not analyzed

mg/l - milligrams per liter

< - below laboratory detection limit

# InfoMap Technologies Incorporated

# **Environmental FirstSearch** TM Report

Target Property: 6TH AVENUE BRIDGE OVER RAILROAD TRACKS

# 6TH AVENUE BRIDGE

**DENVER CO 80204** 

Job Number: 11137801.3000

#### PREPARED FOR:

Pinyon Environmental Engineering, Inc 9600 W Jewell Avenue Lakewood, CO 80232

by Satisfi, Inc

720-200-9472

04-07-11



Tel: (610) 430-7530 Fax: (610) 430-7535

#### Environmental FirstSearch Site Information Report

**Request Date:** 04-07-11 **Search Type:** AREA

Requestor Name:Brian Peterson0.01 sq mile(s)Standard:ASTM-05Job Number:11137801.3000

**Filtered Report** 

**Target Site:** 6TH AVENUE BRIDGE DENVER CO 80204

#### Demographics

Sites: 161 Non-Geocoded: 4 Population: NA

Radon: NA

#### Site Location

	<u>Degrees (Decimal)</u>	Degrees (Min/Sec)		<u>UTMs</u>
Longitude:	-105.004761	-105::17	<b>Easting:</b>	499591.972
Latitude:	39.725922	39:43:33	Northing:	4397128.483
<b>Elevation:</b>	N/A		Zone:	13

#### Comment

**Comment:** 

#### Additional Requests/Services

# Adjacent ZIP Codes: 1 Mile(s) Services:

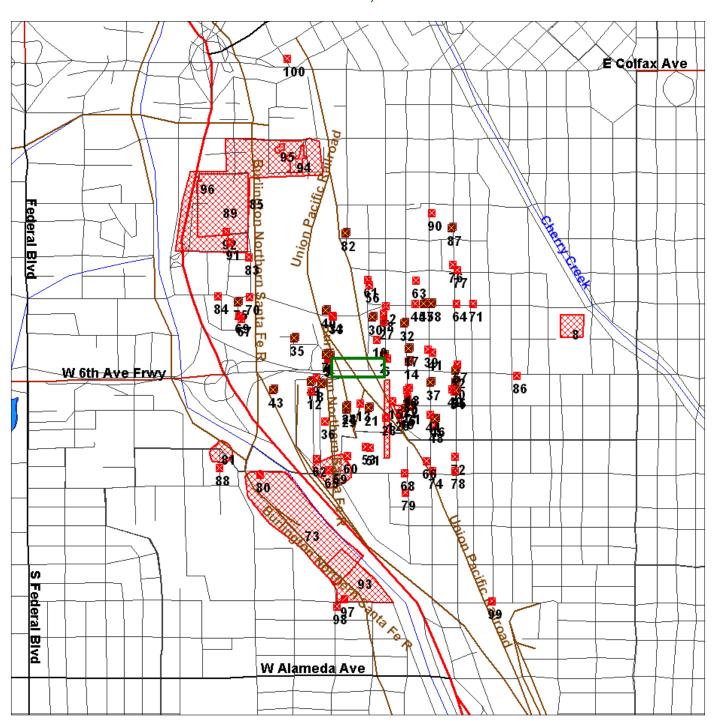
ZIP Code City Name	ST Dist/Dir Sel		Requested? Date	
80203 DENVER 80219 DENVER 80223 DENVER	CO 0.83 SE Y CO 0.63 SW Y CO 0.01 SW Y	Fire Insurance Maps Aerial Photographs Historical Topos City Directories Title Search/Env Liens Municipal Reports Online Topos	No No No No No No No No	



1 Mile Radius from Area Single Map:



#### **6TH AVENUE BRIDGE , DENVER CO 80204**



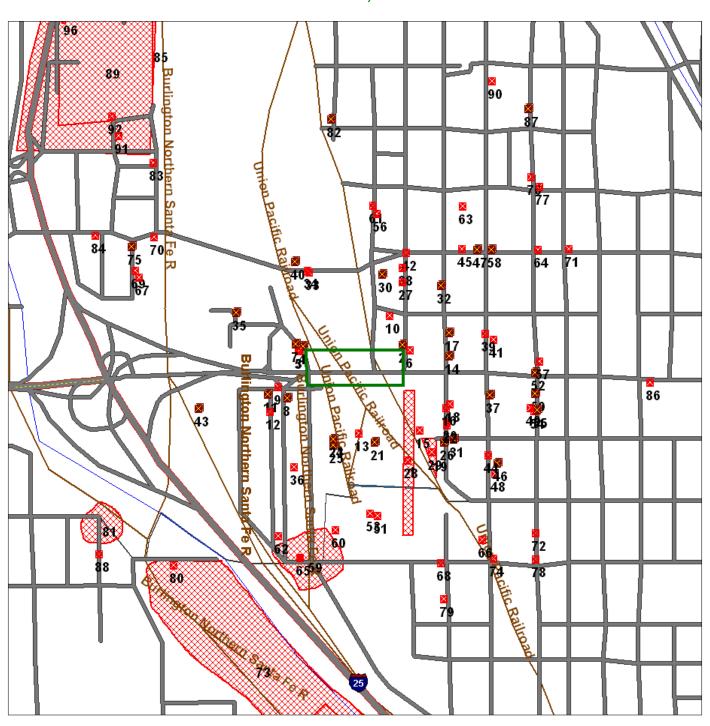




.5 Mile Radius from Area Single Map:



#### **6TH AVENUE BRIDGE , DENVER CO 80204**



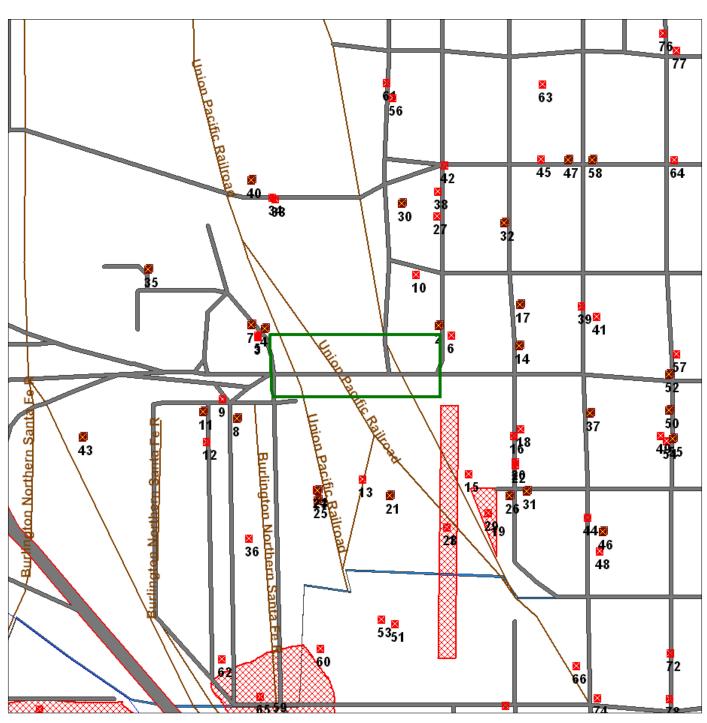
### 



.25 Mile Radius from Area Single Map:



#### **6TH AVENUE BRIDGE**, DENVER CO 80204



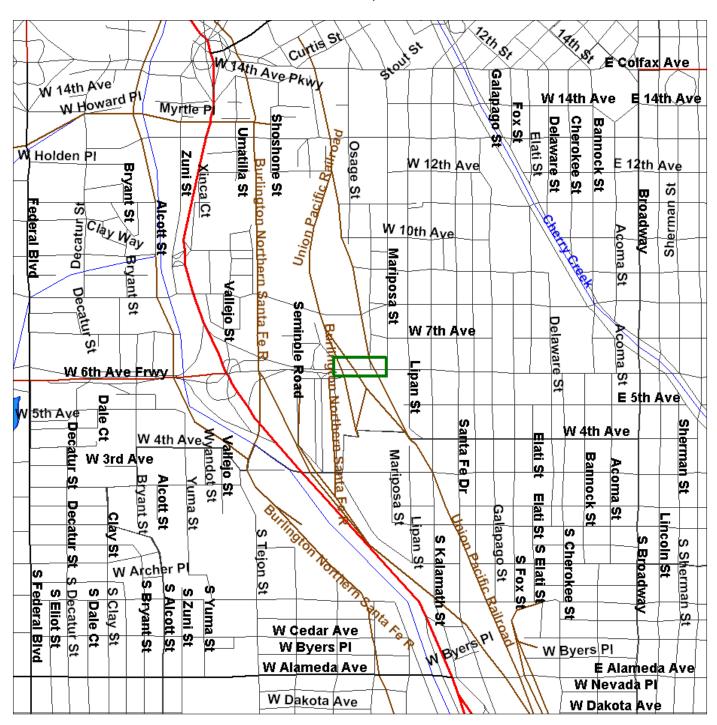
# 



1 Mile Radius from Area Site Locus Map:



#### **6TH AVENUE BRIDGE, DENVER CO 80204**



# 

**Target Site:** 6TH AVENUE BRIDGE DENVER CO 80204

#### FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS	
NDI	V	01 14 11	1.00	0	2	0	2	4	0	0	
NPL NPL I	Y	01-14-11	1.00	0	2	0	2	4	0	8	
NPL Delisted	Y	01-14-11	0.50	0	0	0	0	-	0	0	
CERCLIS	Y	01-26-11	0.50	0	0	2	0	-	0	2	
NFRAP	Y	01-26-11	0.50	0	0	0	1	-	0	1	
RCRA COR ACT	Y	01-11-11	1.00	0	0	0	2	6	0	8	
RCRA TSD	Y	01-11-11	0.50	0	0	0	1	-	0	1	
RCRA GEN	Y	01-11-11	0.25	0	4	4	-	-	0	8	
RCRA NLR	Y	01-11-11	0.25	0	4	6	-	-	0	10	
Federal Brownfield	Y	03-01-11	0.25	0	0	0	-	-	0	0	
ERNS	Y	01-24-11	0.25	0	3	13	-	-	0	16	
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	0	0	
State/Tribal Sites	Y	08-01-07	1.00	0	0	0	0	0	0	0	
State Spills 90	Y	03-31-11	0.25	0	2	14	-	-	0	16	
State/Tribal SWL	Y	01-15-05	0.50	0	0	2	2	-	3	7	
State/Tribal LUST	Y	04-01-11	0.50	0	8	11	25	-	1	45	
State/Tribal UST/AST	Y	04-01-11	0.25	0	21	16	-	-	0	37	
State/Tribal EC	Y	04-01-11	0.25	0	0	0	-	-	0	0	
State/Tribal VCP	Y	03-01-11	0.50	0	0	0	2	-	0	2	
Federal IC/EC	Y	02-07-11	0.25	0	0	0	-	-	0	0	
Meth Labs	Y	02-02-11	0.25	0	0	0	-	-	0	0	
- TOTALS -				0	44	68	35	10	4	161	

#### **Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to InfoMap Technologies, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in InfoMap Technologies's databases. All EPA sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent NPL and state landfill the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

#### Waiver of Liability

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6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
1	0.01 SE	NPL	DENVER RADIUM SITE 94 COD980716955L/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	1
2	0.01 N-	LUST	RTD 1058/CLOSED	655 MARIPOSA ST DENVER CO 80204	N/A	6
2	0.01 N-	RCRAGN	RTD - LRT MAINTENANCE FACILITY COD983770488/VGN	655 MARIPOSA DENVER CO 80201	N/A	7
2	0.01 N-	UST	REGIONAL TRANSPORTATION DISTRICT 9494	655 MARIPOSA ST DENVER CO 80204	N/A	8
3	0.01 SW	RCRAGN	THE GLIDDEN CO COR000202747/VGN	637 OSAGE ST DENVER CO 80204	N/A	9
4	0.01 NW	UST	DENVER LOCOMOTIVE SHOP 2293	680 SEMINOLE RD DENVER CO 80204	N/A	10
4	0.01 NW	UST	SPTCO DENVER LOCOMOTIVE PLANT 7431/UST	680 SEMINOLE RD DENVER CO 80204	N/A	12
4	0.01 NW	RCRAGN	UNION PACIFIC RR CO BURNHAM SHOPS COD983790932/VGN	680 SEMINOLE RD DENVER CO 80204	N/A	13
5	0.01 SW	UST	DEVOE PAINT 11260	657 OSAGE ST DENVER CO 80204	N/A	14
6	0.01 -E	UST	PETRY VAPPI CONSTRUCTION CO 2680	646 MARIPOSA DENVER CO 80204	N/A	15
7	0.02 NW	RCRANLR	SEARS ROEBUCK AND COMPANY COD114044506/NLR	701 OSAGE ST DENVER CO 80204	N/A	16
7	0.02 NW	UST	SEARS WAREHOUSE 16080	701 OSAGE ST DENVER CO 80204	N/A	17
8	0.04 SW	RCRANLR	PPG INDUSTRIES INC COD078343613/NLR	590 QUIVAS ST DENVER CO 80204	N/A	18
8	0.04 SW	UST	PPG INDUSTRIES INC 7592	590 QUIVAS ST DENVER CO 80204	N/A	19
9	0.05 SW	SPILLS	UNKNOWN CO97-471	1701 WEST W. 6TH AVE DENVER CO	N/A	20
10	0.06 N-	ERNS	NEIMAN SALVAGE YARD 265078/FIXED FACILITY	WEST JUST OF 7TH and MARIP DENVER/CENTRAL CO 80204	N/A	21
11	0.07 SW	LUST	CONRADS WAREHOUSE 5751/CLOSED	595 QUIVAS DENVER CO 80204	N/A	22
11	0.07 SW	UST	CONRADS INC (CURRENTLY) 7836	595 QUIVAS DENVER CO 80204	N/A	23
11	0.07 SW	UST	CONRADS WAREHOUSE 13770	595 QUIVAS DENVER CO 80204	N/A	24
12	0.08 SW	RCRANLR	DUPONT DE NEMOURS and CO COT090011297/NLR	555 QUIVAS ST DENVER CO 80217	N/A	25
13	0.08 S-	SPILLS	SOUTHERN PACIFIC RAILROAD CO96-182	1 NORTH BLOCK OF 4TH AND NA DENVER CO	N/A	26

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
14	0.08 -E	UST	BELCON MECHNICAL 12739	630 LIPAN DENVER CO 80204	N/A	27
14	0.08 -E	LUST	BELCON MECHNICAL 3218/CLOSED	630 LIPAN DENVER CO 80204	N/A	27
14	0.08 -E	UST	COOK MECHANICAL SYSTEMS 930	630 LIPAN ST DENVER CO 80204	N/A	28
15	0.08 SE	UST	UNKNOWN 6432	1155 WEST 5TH AVE DENVER CO 80204	N/A	29
16	0.09 SE	RCRANLR	S and W PAINTING and DECORATING COR000220681/NLR	575 LIPAN ST DENVER CO 80204	N/A	30
17	0.09 NE	LUST	JEBCO HEATING and AIR CONDITIONING 8929/CLOSED	666 LIPAN ST DENVER CO 80209	N/A	31
17	0.09 NE	UST	JEBCO HEATING and AIR CONDITIONING 5698	666 LIPAN ST DENVER CO 80209	N/A	31
18	0.09 SE	UST	ROBERT OHOWELL PROPERTY 10795	550 LIPAN ST DENVER CO 80204	N/A	32
19	0.10 SE	NPL	DENVER RADIUM SITE 95 COD980716955M/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	33
20	0.10 SE	RCRAGN	MILE HI BODY SHOP INC COR000217497/VGN	519 LIPAN ST DENVER CO 80204	N/A	38
21	0.10 S-	ERNS	SOUTHERN PACIFIC RAILROAD 495114/UNKNOWN (EPA REGIONS	1 NORTH BLOCK OF 4TH AND NA DENVER CO	N/A	39
21	0.10 S-	ERNS	INCIDENT 343954 343954-CO	1 NORTH BLOCK OF 4TH AND NA DENVER CO	N/A	40
22	0.10 SE	UST	D and S WHOLESALE 17022	515 LIPAN DENVER CO 80223	N/A	40
23	0.10 S-	LUST	RIO GRANDE CO RESIDENTIAL PRODUCTS 9337/CLOSED	500 OSAGE ST DENVER CO 80204	N/A	41
23	0.10 S-	UST	RIO GRANDE CO RESIDENTIAL PRODUCTS 7940	500 OSAGE ST DENVER CO 80204	N/A	42
24	0.10 S-	LUST	5TH and OSAGE LTT-86/UNKNOWN	5TH and OSAGE DENVER CO	N/A	43
25	0.11 S-	UST	CHAMPION FENCE CO 12817	490 OSAGE ST DENVER CO 80204	N/A	43
25	0.11 S-	UST	SOUTHWEST PROPERTIES 6064	490 OSAGE ST DENVER CO 80216	N/A	44
25	0.11 S-	LUST	CHAMPION FENCE CO 1739/CLOSED	490 OSAGE ST DENVER CO 80204	N/A	44
26	0.12 SE	UST	MASTERS STUDIO 5824	1140 WEST 5TH AVE DENVER CO 80204	N/A	45

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
26	0.12 SE	UST	MASTERS STUDIO 12953	1140 WEST 5TH AVE DENVER CO 80204	N/A	46
26	0.12 SE	LUST	MASTERS STUDIO 4740/CLOSED	1140 WEST 5TH AVE DENVER CO 80204	N/A	46
27	0.12 N-	UST	RODERICK R BROWN PROPERTY 10322	751 MARIPOSA ST DENVER CO 80204	N/A	47
28	0.13 SE	CERCLIS	DENVER RADIUM SITE 94 COD980716955L/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	48
29	0.13 SE	CERCLIS	DENVER RADIUM SITE 95 COD980716955M/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	53
30	0.13 N-	UST	NEIMAN INDUSTRIAL RECYCLING 7030	730 NAVAJO ST DENVER CO 80204	N/A	58
30	0.13 N-	RCRANLR	NEIMAN S INDUSTRAIL RECYCLING COD983776832/NLR	730 NAVAJO DENVER CO 80204	N/A	59
31	0.13 SE	ERNS	PUBLIC SERVICE CO OF CO 348502/PIPELINE RELATED	1046 WEST 5TH AVE DENVER CO 80202	N/A	60
31	0.13 SE	ERNS	INCIDENT 209022 209022-CO	1046 WEST 5TH AVE DENVER CO 80202	N/A	61
32	0.13 NE	UST	CRAIG and ASSOC 13855	745 LIPAN ST DENVER CO 80204	N/A	62
32	0.13 NE	LUST	CRAIG and ASSOC 4355/CLOSED	745 LIPAN ST DENVER CO 80204	N/A	63
33	0.14 N-	ERNS	DENVER and RIO GRAND RAILROAD 240183/FIXED FACILITY	WEST W. 8TH and OSAGE AVE DENVER/CENTRAL CO 80204	N/A	64
34	0.14 N-	SPILLS	DENVER and RIO GRANDE RR CO91-287	8TH AND OSAGE DENVER CO 80204	N/A	65
35	0.14 NW	LUST	SEARS ROEBUCK and CO 8481/LUST TRUST	1701 WEST 6TH AVE DENVER CO 80204	N/A	66
35	0.14 NW	UST	SEARS ROEBUCK and CO 3026	1701 WEST 6TH AVE DENVER CO 80204	N/A	67
35	0.14 NW	LUST	7TH and OSAGE LTT-88/UNKNOWN	7TH and OSAGE DENVER CO	N/A	68
36	0.15 SW	SPILLS	CO97-158	500 QUIVAS DENVER CO 80223	N/A	69
37	0.15 SE	UST	FORMER SERVICE STATION 7454	570 KALAMATH DENVER CO 80204	N/A	70
37	0.15 SE	LUST	KALAMATH ASSOCIATES PROPERTY 623/CLOSED	570 KALAMATH ST DENVER CO 80204	N/A	71
37	0.15 SE	UST	KALAMATH ASSOCIATES PROPERTY 13757	570 KALAMATH ST DENVER CO 80204	N/A	71

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

**TOTAL:** 161 GEOCODED: 157 NON GEOCODED: 4 **SELECTED:** 161

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
38	0.15 N-	UST	FUEL FACILITY 4061	775 MARIPOSA DENVER CO 80204	N/A	72
39	0.15 NE	UST	STAND BY INC 6489	665 KALAMATH ST DENVER CO 80204	N/A	73
40	0.16 NW	LUST	SOUTHERN PACIFIC RAILWAY BURNHAM	800 SEMINOLE RD	N/A	74
			447/CLOSED	DENVER CO 80204		
40	0.16 NW	LUST	SOUTHERN PACIFIC RAILWAY - BURNHAM 442/CLOSED	800 SEMINOLE RD DENVER CO 80204	N/A	74
40	0.16 NW	RCRANLR	DENVER and RIO GRANDE WESTERN RAIL COD000706770/NLR	8TH and OSAGE DENVER CO 80204	N/A	75
40	0.16 NW	ERNS	14 EAST NRC-766747/RAILROAD	800 SEMINOLE RD DENVER CO 80204	N/A	76
40	0.16 NW	ERNS	BURN HAM RAIL YARD NRC-803644/RAILROAD	800 SEMINOLE RD DENVER CO 80204	N/A	79
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2009-0038	800 SEMINOLE RD DENVER CO 80204	N/A	82
40	0.16 NW	ERNS	ON THE LOADING DOCK NRC-704760/FIXED	800 SEMINOLE RD DENVER CO 80204	N/A	83
40	0.16 NW	UST	BURNHAM SHOPS 974	800 SEMINOLE RD DENVER CO 80204	N/A	86
40	0.16 NW	ERNS	IN THE RAILYARD OF THE BURHAM SHOP NRC-800346/STORAGE TANK	800 SEMINOLE RD DENVER CO 80204	N/A	89
40	0.16 NW	ERNS	NRC-834088/FIXED	800 SEMINOLE RD DENVER CO 80204	N/A	92
40	0.16 NW	SPILLS	UPRR 2009-0020	800 SEMINOLE RD DENVER CO 80204	N/A	95
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2011-0056	800 SEMINOLE RD, A LOCOMOTI DENVER CO 80204	N/A	96
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2011-0058	800 SEMINOLE ROAD DENVER CO	N/A	97
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2008-0675	800 SEMINOLE RD DENVER CO 80204	N/A	98
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2006-132	800 SEMINOLE RD DENVER CO 80204	N/A	99
40	0.16 NW	SPILLS	PACIFIC ROAD 2004-533	800 SEMINOLE RD DENVER CO 80204	N/A	100
40	0.16 NW	ERNS	UNION PACIFIC RAILROAD NRC-762627/RAILROAD NON-RELEASE	800 SEMINOLE RD DENVER CO 80204	N/A	101
40	0.16 NW	ERNS	NRC-804990/RAILROAD	800 SEMINOLE RD DENVER CO 80204	N/A	104

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
40	0.16 NW	SPILLS	UPRR 2010-0504	800 SEMINOLE RD DENVER CO 80204	N/A	107
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2006-665	800 SEMINOLE RD DENVER CO 80204	N/A	108
40	0.16 NW	SPILLS	UNION PACIFIC 2006-538	800 SEMINOLE RD DENVER CO 80204	N/A	109
40	0.16 NW	SPILLS	UNION PACIFIC RAILROAD 2005-450	800 SEMINOLE RD DENVER CO 80204	N/A	110
41	0.16 NE	ERNS	NRC-616229/FIXED	658 KALAMGH DENVER CO	N/A	111
42	0.17 NE	SPILLS	2005-359	WEST W. 8TH and MARIPOSA A DENVER CO	N/A	114
43	0.20 SW	UST	ASSOCIATED STATIONER INC PROPERTY 15421	501 RARITAN WAY DENVER CO 80204	N/A	115
43	0.20 SW	RCRANLR	FUJI PHOTO FILM USA INC COR000204263/NLR	501 RARITAN WAY DENVER CO 80204	N/A	116
44	0.20 SE	RCRANLR	W RAY CRABB COD983800392/NLR	471 KALAMATH DENVER CO 80201	N/A	117
45	0.21 NE	RCRAGN	B^R SCREEN GRAPHICS COR000200618/VGN	1045 W 8TH AVE DENVER CO 80204	N/A	118
46	0.22 SE	RCRAGN	US AUTO BODY and PAINT COD982649626/SGN	450 KALAMATH ST DENVER CO 80204	N/A	119
46	0.22 SE	RCRANLR	US AUTO BODY and PAINT COD982649626/NLR	450 KALAMATH ST DENVER CO 80204	N/A	120
47	0.22 NE	LUST	ADCO GENERAL CORPORATION PROPERTY 7236/CLOSED	Y 1021 WEST 8TH AVE DENVER CO 80204	N/A	121
47	0.22 NE	UST	ADCO GENERAL CORPORATION PROPERTY 14737	7 1021 WEST 8TH AVE DENVER CO 80204	N/A	121
48	0.23 SE	RCRAGN	RICKENBAUGH COR000001727/SGN	444 KALAMATH DENVER CO 80203	N/A	122
49	0.23 SE	RCRANLR	CINTAS CORPORATION COD032037483/NLR	545 SANTA FE DR DENVER CO 80204	N/A	123
50	0.23 SE	LUST	CONOCO SS 5808/CLOSED	571 SANTA FE DR DENVER CO 80204	N/A	124
50	0.23 SE	UST	6TH and SANTA FE CONOCO 7521	571 SANTA FE DR DENVER CO 80204	N/A	125
51	0.23 S-	UST	BOYD DISTRIBUTING CO 10237	340 NAVAJO ST DENVER CO 80223	N/A	126
52	0.23 -Е	LUST	SIXTH and SANTA FE CAR WASH 6587/CLOSED	603 SANTA FE DR DENVER CO 80204	N/A	127

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
52	0.23 -E	UST	SIXTH and SANTA FE CAR WASH 5778	603 SANTA FE DR DENVER CO 80204	N/A	128
53	0.23 S-	LUST	BOYD DISTRIBUTING 6994/CLOSED	340 NAVAJO ST DENVER CO 80223	N/A	129
54	0.24 SE	RCRAGN	SHERWIN-WILLIAMS COR000014753/SGN	543 SANTA FE DR DENVER CO 80204	N/A	130
55	0.24 SE	ERNS	PUBLIC SERVICE CO 516056/PIPELINE RELATED	545 NORTH SANTA FE ST DENVER CO 80204	N/A	131
55	0.24 SE	ERNS	INCIDENT 368399 368399-CO	545 NORTH SANTA FE ST DENVER CO	N/A	132
56	0.24 N-	SWL	STAFAB 016-REC-001	860 NAVAJO DENVER CO 80204	N/A	132
57	0.24 -Е	UST	A-B PETROLEUM 22 8553	620 SANTA FE DR DENVER CO 80204	N/A	133
58	0.24 NE	UST	CARLOS 66 5335	800 KALAMATH ST DENVER CO 80203	N/A	134
58	0.24 NE	UST	CARLOS 66 12992	800 KALAMATH ST DENVER CO 80203	N/A	135
58	0.24 NE	LUST	CARLOS 66 3013/CLOSED	800 KALAMATH ST DENVER CO 80203	N/A	135
59	0.25 S-	SWL	KNOWN LANDFILL	SOUTH BOUNDARIES APPROXIMA	T N/A	136
			132/HISTORIC	DENVER CO	11/12	100
60	0.26 S-	LUST	BOYD DISTRIBUTING CO 140/CLOSED	350 OSAGE ST DENVER CO 80223	N/A	137
61	0.26 N-	LUST	STOUT STREET FOUNDATION 3161/STATE LEAD	875 NAVAJO ST DENVER CO 80204	N/A	137
62	0.27 SW	LUST	BP INVESTMENT 3071/CLOSED	330 QUIVAS ST DENVER CO 80223	N/A	138
63	0.28 NE	LUST	DICK LESNICK 1616/CLOSED	866 LIPAN DENVER CO 80204	N/A	138
64	0.30 NE	LUST	CARTER LUBRICATION AKA GREASE MON	K 901 WEST 8TH AVE	N/A	139
			7431/CLOSED	DENVER CO 80204	IVA	137
65	0.31 SW	LUST	MURRAY DISTRIBUTING CO INC 540/CLOSED	1505 WEST 3RD AVE DENVER CO 80223	N/A	139
66	0.31 SE	LUST	RTD 5491/CLOSED	301 KALAMATH ST DENVER CO 80223	N/A	140
67	0.32 NW	LUST	ELMS INVESTMENT PROPERTY 5434/CLOSED	730 UMATILLA ST DENVER CO 80204	N/A	140
68	0.32 SE	LUST	WASTE WATER MGMT 4990/CLOSED	3RD AVE and S PLATTE RIVER DENVER CO 80223	N/A	141

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
69	0.33 NW	LUST	740 INVESTORS 2871/CLOSED	740 UMATILLA ST DENVER CO 80204	N/A	141
70	0.34 NW	LUST	NEWSTROM-DAVIS CONSTRUCTION CO 5137/CLOSED	2000 WEST 8TH AVE DENVER CO 80204	N/A	142
71	0.34 NE	LUST	TS GAS 5640/CLOSED	801 WEST 8TH AVE DENVER CO 80204	N/A	142
72	0.35 SE	RCRACOR	ALERT POLISHING AND PLATING COR000016204/CA	345 SANTA FE DR DENVER CO 80223	N/A	143
73	0.35 SW	SWL	KNOWN LANDFILL 135/HISTORIC	WEST BOUNDARIES APPROXIMAT DENVER CO	N/A	143
74	0.35 SE	LUST	3RD AND KALAMATH ST PROPERTY 8922/CLOSED	300- 304 KALAMATH ST DENVER CO 80222	N/A	144
75	0.36 NW	RCRATSD	LINCOLN PLATING COMPANY COD007073901/TSD	777 UMATILLA DENVER CO 80204	N/A	145
75	0.36 NW	RCRACOR	LINCOLN PLATING COMPANY COD007073901/CA	777 UMATILLA DENVER CO 80204	N/A	146
76	0.38 NE	NFRAP	INDUSTRIAL HARD CHROME PLATING CO. CO0001055235/NFRAP-N	919 NORTH SANTA FE DR DENVER CO 80204	N/A	149
77	0.38 NE	LUST	H and M INVESTMENTS 8549/CLOSED	900 SANTA FE DENVER CO 80202	N/A	150
78	0.39 SE	LUST	7-ELEVEN 27620 10926/CLOSED	303 NORTH SANTA FE DR DENVER CO 80223	N/A	150
79	0.39 SE	LUST	LIPAN GARAGE 1214/CLOSED	243 LIPAN ST DENVER CO 80223	N/A	151
80	0.40 SW	LUST	WASTEWATER MANAGEMENT FACILITY 3635/CLOSED	2000 WEST 3RD AVE DENVER CO 80223	N/A	151
81	0.41 SW	SWL	KNOWN LANDFILL 131/HISTORIC	AT 4TH and VALLEJO ST DENVER CO	N/A	152
82	0.41 N-	VCP	10TH AND OSAGE PROPERTIES 080509-2	944 OSAGE ST DENVER CO 80204	N/A	153
82	0.41 N-	LUST	CITY AND COUNTY OF DENVER PROPERTY 10743/CLOSED	1001 OSAGE ST DENVER CO 80204	N/A	154
82	0.41 N-	VCP	10TH AND OSAGE PROPERTIES II 081110-1	1001 OSAGE ST DENVER CO 80204	N/A	155
83	0.43 NW	LUST	BOYS and GIRLS CLUB OF DENVER 1515/CLOSED	901 TEJON ST DENVER CO 80204	N/A	156
84	0.43 NW	LUST	HEB S SERVICE 2403/CLOSED	2214 WEST 8TH AVE DENVER CO 80204	N/A	156
85	0.44 NW	NPL	DENVER RADIUM SITE COD980716955/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	157

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

**TOTAL:** 161 GEOCODED: 157 NON GEOCODED: 4 SELECTED: 161

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
86	0.44 -E	LUST	BAKER MIDDLE SCHOOL 5175/CLOSED	574 WEST 6TH AVE DENVER CO 80204	N/A	162
87	0.48 NE	LUST	AMICK MOVING AND STORAGE 3116/CLOSED	1029 SANTA FE DR DENVER CO 80204	N/A	162
87	0.48 NE	LUST	AMICK MOVING AND STORAGE 9471/CLOSED	1029 SANTA FE DR DENVER CO 80204	N/A	163
88	0.48 SW	LUST	WYLACO SUPPLY CO 1375/CLOSED	295 VALLEJO DENVER CO 80223	N/A	163
89	0.50 NW	NPL	DENVER RADIUM SITE-OU 9A COD980716955H/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	164
90	0.50 NE	LUST	ADCO GENERAL CORP 263/CLOSED	1080 KALAMATH DENVER CO 80204	N/A	169
91	0.51 NW	RCRACOR	KATZSON BROTHERS INC COD031992225/CA	960 VALLEJO ST DENVER CO 80204	N/A	170
92	0.54 NW	RCRACOR	GandK SERVICE INCORPORATED COD983789447/CA	999 VALLEJO ST DENVER CO 80204	N/A	172
93	0.57 S-	NPL	DENVER RADIUM SITE 97 COD980716955N/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	174
94	0.62 NW	NPL	DENVER RADIUM SITE-OU 7C COD980716955F/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	179
95	0.70 NW	NPL	DENVER RADIUM SITE-OU 7B COD980716955E/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	184
96	0.72 NW	NPL	DENVER RADIUM SITE-OU 10 COD980716955I/FINAL	VARIOUS PLACES IN DENVER DENVER CO 80204	N/A	189
97	0.73 S-	RCRACOR	SAFETY-KLEEN SYSTEMS INC COD980954101/CA	1345 WEST BAYAUD AVE DENVER CO 80223	N/A	194
98	0.75 S-	RCRACOR	MALLOW PLATING WORKS INC COD007076813/CA	118 SOUTH PECOS ST DENVER CO 80223	N/A	197
99	0.82 SE	RCRACOR	PSCO - BARTERS LOT C COD982584526/CA	701 WEST W. BAYAUD AVE DENVER CO 80223	N/A	199
100	1.00 NW	RCRACOR	EVERSMAN MANUFACTURING CO COD007064397/CA	1145 5TH ST DENVER CO 80204	N/A	202

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

**TOTAL:** 161 GEOCODED: 157 NON GEOCODED: 4 **SELECTED:** 161

Map ID	Dist/Dir	DB Type	Site Name/ID/Status	Address	ElevDiff	Page No.
	NON GC	LUST	TRYND LTT-110/UNKNOWN	TRYND DENVER CO	N/A	205
	NON GC	SWL	ALLIED CHEMICALS DENVER, CO 12-0383/HISTORIC	ADDRESS NOT REPORTED DENVER CO	N/A	205
	NON GC	SWL	COLORADO DEPT OF HEALTH 12-039/HISTORIC	ADDRESS NOT REPORTED DENVER CO	N/A	206
	NON GC	SWL	OLD DENVER CITY SWDS 12-0391/HISTORIC	ADDRESS NOT REPORTED DENVER CO	N/A	207

**Target Property:** 6TH AVENUE BRIDGE JOB: 11137801.3000 DENVER CO 80204

**NPL** 

SEARCH ID: 2 DIST/DIR: 0.01 SE ELEVATION: MAP ID: 1

NAME: DENVER RADIUM SITE 94 REV: 10/08/08

 ADDRESS:
 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955L

 DENVER CO 80204
 ID2:
 0800247L

 DENVER
 STATUS:
 FINAL

CONTACT: JACK WHYTE PHONE: 3033126707
SOURCE: EPA

SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	04-15-2008	09-30-2008
risk/health assessment	EPA Fund-Financed	04-12-2005	10-13-2005
prospective purchaser agreement assessment	Federal Enforcement	11-26-2002	06-03-2005

- Continued on next page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

	1	NPL		
SEARCH ID: 2 DIST/DIR:	0.01 SE	ELEVATION:	MAP ID:	1
NAME: DENVER RADIUM SITE 94 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955L 0800247L FINAL 3033126707	
forward planning activity/management assistance	EPA Fund-Financed	09-15-2000	09-27-2000	
preparation of cost document package	Federal Enforcement	09-02-2000	10-19-2001	
remedial design/remedial action negotiations	Federal Enforcement	06-15-2000	10-10-2001	
issue request letters (104e)	Federal Enforcement	03-28-2000	03-28-2000	
national priorities list responsible party search	Federal Enforcement Primary	03-02-2000	03-28-2000	
national priorities list responsible party search	Federal Enforcement Primary	03-01-2000	03-28-2000	
groundwater monitoring (post-record of decision)	Responsible Party Primary	02-28-2000	08-26-2002	
community advisory group	Community Organizat	ion 01-01-2000	08-16-2006	
preparation of cost document package	Federal Enforcement	11-29-1999	01-25-2000	
combined remedial investigation/feasibility study	EPA Fund-Financed	11-15-1999	06-16-2000	
five-year review	EPA Fund-Financed Primary	06-10-1999	12-21-1999	
preparation of cost document package	Federal Enforcement	10-21-1998	12-15-1998	
five-year review	EPA Fund-Financed Primary	01-15-1998	09-30-2003	
national priorities list responsible party search	Federal Enforcement Primary	03-08-1995	03-30-1995	
preparation of cost document package	Federal Enforcement Primary	02-26-1994	07-11-1994	
preparation of cost document package	Federal Enforcement Primary	12-31-1993	02-25-1994	
potentially responsible party removal Cleaned up	Responsible Party Primary	06-29-1993	08-27-1993	
		- Ca	ontinued on next page -	

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

	]	NPL	
SEARCH ID: 2 DIST/DIR:	0.01 SE	ELEVATION:	<b>MAP ID:</b> 1
NAME: DENVER RADIUM SITE 94 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955L 0800247L FINAL 3033126707
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993
five-year review	EPA Fund-Financed Primary	04-05-1993	09-12-1994
potentially responsible party remedial action	Responsible Party Primary	03-31-1993 Other Complet	06-16-2000 ion Anomaly
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10-26-1992	06-29-1994
potentially responsible party remedial design	Responsible Party Alternate	06-07-1992	03-31-1993
potentially responsible party remedial design	Responsible Party Primary	06-07-1992	06-27-1996
remedial design/remedial action negotiations	Federal Enforcement Primary	01-28-1992	08-21-1992
preparation of cost document package	Federal Enforcement Primary	12-30-1991	02-11-1994
state support agency cooperative agreement	State, Fund Financed Primary	07-25-1991	09-25-2000
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	07-17-1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	09-09-1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-11-1991	08-08-1991
national priorities list responsible party search	Federal Enforcement	05-24-1991	05-24-1991
preparation of cost document package	Federal Enforcement Primary	03-30-1991	09-30-1991
national priorities list responsible party search	Federal Enforcement Primary	01-21-1991	07-23-1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	06-21-1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	05-29-1992
		- Co	ontinued on next page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

6TH AVENUE BRIDGE JOB: 11137801.3000

				]	NPL			
SEARCH	ID:	2 <b>DIST</b> /I	DIR:	0.01 SE	ELEVA	ATION:	I	MAP ID: 1
NAME: ADDRESS: CONTACT: SOURCE:	VAR DEN' DEN'		R				10/08/08 COD980716955L 0800247L FINAL 3033126707	
state support	agency	cooperative agreement		Federal Enforcement Primary		08-06-1990	09-29-1992	
national prior Search Compl		st responsible party search able PRPs		Federal Enforcement		07-01-1988	09-12-1988	
state support	agency	cooperative agreement		State, Fund Financed Primary		02-12-1988	07-20-1989	
potentially re	sponsi	ble party remedial design		Responsible Party Primary		12-11-1987	03-01-1990	
remedial inve	estigati	on/feasibility study negotiati	ons	Federal Enforcement Alternate		08-03-1987	03-31-1988	
national prior Search Compl		st responsible party search able PRPs		Federal Enforcement		07-22-1987	08-25-1987	
remedial inve	estigati	on/feasibility study workplan	n approva	al by hq Primary		Federal Enforce	ment 04-30-1987	06-29-1987
national prior Search Compl		st responsible party search able PRPs		Federal Enforcement		03-24-1987	06-02-1987	
national prior	rities li	st responsible party search		Federal Enforcement Primary		09-12-1986	03-01-1990	
national prior	rities li	st responsible party search		Federal Enforcement		05-08-1986	01-16-1987	
state support	agency	cooperative agreement		State, Fund Financed Primary		04-10-1986	04-11-1991	
national prior Search Compl		st responsible party search able PRPs		Federal Enforcement		01-16-1985	05-08-1986	
national prior Search Compl		st responsible party search able PRPs		Federal Enforcement		01-16-1985	01-16-1987	
national prior Search Compl		st responsible party search able PRPs		Federal Enforcement		11-26-1984	01-16-1985	
remedial inve	estigati	on/feasibility study workpla	n approva	al by hq Primary		EPA Fund-Finar	nced 01-03-1984	01-03-1984
state support	agency	cooperative agreement		State, Fund Financed Primary		08-19-1983	11-14-2000	
remedial inve	estigati	on/feasibility study workpla	n approva	al by hq Primary		State, Fund Fina	nced 12-31-1981	12-31-1981
notice letters	issued			Federal Enforcement			08-10-1982	
						- Con	tinued on nex	t page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

JOB: 11137801.3000

		NPL	
SEARCH ID: 2 DIST/DIR:	0.01 SE	ELEVATION:	<b>MAP ID:</b> 1
NAME: DENVER RADIUM SITE 94 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955L 0800247L FINAL 3033126707
notice letters issued	EPA Fund-Financed		08-10-1982
hazard ranking system package	EPA Fund-Financed		12-01-1982
proposal to national priorities list	EPA Fund-Financed		12-30-1982
final listing on national priorities list	EPA Fund-Financed		09-08-1983
notice letters issued	EPA Fund-Financed		12-28-1984
issue request letters (104e)	Federal Enforcement		12-28-1984
notice letters issued	Federal Enforcement		12-28-1984
issue request letters (104e)	Federal Enforcement		05-22-1987
notice letters issued	Federal Enforcement		05-22-1987
notice letters issued	EPA Fund-Financed		05-22-1987
issue request letters (104e)	Federal Enforcement		06-03-1987
special notice issued	Federal Enforcement		07-01-1987
issue request letters (104e)	Federal Enforcement		07-23-1987
notice letters issued	Federal Enforcement		10-29-1987
notice letters issued	EPA Fund-Financed		10-29-1987
issue request letters (104e)	Federal Enforcement		05-13-1988
administrative order on consent	Federal Enforcement Primary		07-22-1988
	- More Det	tails Exist For This S	ite; Max Page Limit Reached -

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

**LUST** 

**SEARCH ID:** 143 **DIST/DIR:** 0.01 N-**ELEVATION:** 5227 MAP ID: 2

**REV:** NAME: RTD 04/04/11 ADDRESS: 655 MARIPOSA ST

ID1: 1058 DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 3/14/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=1058

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRAGN** 

**SEARCH ID:** 24 **DIST/DIR:** 0.01 N- **ELEVATION:** 5227 **MAP ID:** 2

NAME: RTD - LRT MAINTENANCE FACILITY REV: 1/11/11

**ADDRESS:** 655 MARIPOSA **ID1:** COD983770488

DENVER CO 80201 ID2:

STATUS: VGN

CONTACT: PHONE: SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:

GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

#### NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### **VIOLATION INFORMATION:**

#### **HAZARDOUS WASTE INFORMATION:**

D001 - Ignitable waste D002 - Corrosive waste

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 99 **DIST/DIR:** 0.01 N- **ELEVATION:** 5227 **MAP ID:** 2

NAME: REGIONAL TRANSPORTATION DISTRICT REV: 04/01/11

 ADDRESS:
 655 MARIPOSA ST
 ID1:
 9494

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 4418

OWNER NAME:

OWNER ADDRESS: PO BOX 369

GREELEY CO 80631

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 4000

 TANK ID:
 25173

 TANK TAG:
 9494-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 25174

 TANK TAG:
 9494-2

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 25175

 TANK TAG:
 9494-3

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 25176

 TANK TAG:
 9494-4

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=9494

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRAGN** 

**SEARCH ID:** 26 **DIST/DIR:** 0.01 SW **ELEVATION:** 5224 **MAP ID:** 3

NAME: THE GLIDDEN CO REV: 1/11/11

ADDRESS: 637 OSAGE ST ID1: COR000202747

DENVER CO 80204 ID2:

DENVER STATUS: VGN

CONTACT: PHONE: SOURCE: EPA

**SITE INFORMATION** 

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:

GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

44412 - PAINT AND WALLPAPER STORES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

**HAZARDOUS WASTE INFORMATION:** 

D001 - Ignitable waste

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

SEARCH ID: 88 DIST/DIR: 0.01 NW ELEVATION: 5224 MAP ID: 4

NAME: DENVER LOCOMOTIVE SHOP

REV: 04/01/11

 ADDRESS:
 680 SEMINOLE RD
 ID1:
 2293

 DENVER CO 80204
 ID2:

DENVER STATUS: PHONE:

CONTACT: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 5458

OWNER NAME:

**OWNER ADDRESS:** 280 South 400 West

SALT LAKE CITY UT 84101

TANK INFORMATION

 TANK TYPE:
 AST

 TANK CONTENTS:
 Z Other

 TANK CAPACITY:
 14000

 TANK ID:
 6442

 TANK TAG:
 2293-1

 TANK TYPE:
 AST

 TANK CONTENTS:
 Z Other

 TANK CAPACITY:
 14000

 TANK ID:
 6443

 TANK TAG:
 2293-2

TANK TYPE: AST

TANK CONTENTS: 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 35000

 TANK ID:
 6444

 TANK TAG:
 2293-3

TANK TYPE: AST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 15000

 TANK ID:
 6445

 TANK TAG:
 2293-4

TANK TYPE: AST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 8400

 TANK ID:
 6446

 TANK TAG:
 2293-5

 TANK TYPE:
 AST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 35000

 TANK ID:
 6447

 TANK TAG:
 2293-6

TANK TYPE: AST TANK CONTENTS: 4 - Diesel

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

SEARCH ID: 88 DIST/DIR: 0.01 NW ELEVATION: 5224 MAP ID: 4

NAME: DENVER LOCOMOTIVE SHOP

REV: 04/01/11

 ADDRESS:
 680 SEMINOLE RD
 ID1:
 2293

 DENVER CO 80204
 ID2:

DENVER STATUS: CONTACT: PHONE:

SOURCE: COSTIS

 TANK CAPACITY:
 35000

 TANK ID:
 6448

 TANK TAG:
 2293-7

 TANK TYPE:
 AST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 10000

 TANK ID:
 6449

 TANK TAG:
 2293-8

TANK TYPE: UST

TANK CONTENTS: 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 2000

 TANK ID:
 6450

 TANK TAG:
 2293-9

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=2293

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

REV:

**SEARCH ID:** 107 **DIST/DIR:** 0.01 NW **ELEVATION:** 5224 **MAP ID:** 4

NAME: SPTCO DENVER LOCOMOTIVE PLANT

**ADDRESS:** 680 SEMINOLE RD **ID1:** 7431

DENVER CO 80204 ID2:

DENVER STATUS: UST

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 5458

OWNER NAME: UNION PACIFIC RAILROAD

OWNER ADDRESS: ATTN CRAIG DENNY 1416 DODGE ST ROOM 930

OMAHA CO 68149

TANK INFORMATION

TANK STATUS: Permanently Out of Use- UNDERGROUND STORAGE TANK

TANK INSTALLED DATE:

TANK CAPACITY: 2000 GALLONS TANK CONTENTS: Used Oil

TANK MATERIAL OF CONSTRUCTION: Asphalt Coated or Bare Steel

PIPE MATERIAL OF CONSTRUCTION: Bare Steel

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRAGN** 

SEARCH ID: 27 DIST/DIR: 0.01 NW ELEVATION: 5224 MAP ID: 4

NAME: UNION PACIFIC RR CO BURNHAM SHOPS REV: 1/11/11

ADDRESS: 680 SEMINOLE RD ID1: COD983790932

DENVER CO 80023 ID2:

DENVER STATUS: VGN

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:

GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

482111 - LINE-HAUL RAILROADS 482111 - LINE-HAUL RAILROADS 482111 - LINE-HAUL RAILROADS

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

**HAZARDOUS WASTE INFORMATION:** 

D008 - Lead

D000

D001 - Ignitable waste

D007 - Chromium

D002 - Corrosive waste

6TH AVENUE BRIDGE **Target Property: JOB:** 11137801.3000

DENVER CO 80204

UST

SEARCH ID: 89 **DIST/DIR:** 0.01 SW **ELEVATION:** 5 5224 MAP ID:

NAME: **REV:** DEVOE PAINT 04/01/11 ADDRESS: 657 OSAGE ST

11260 ID1: DENVER CO 80204 ID2:

**DENVER** STATUS: PHONE:

CONTACT: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 1816

OWNER NAME: DEVOE and REYNOLDS CO;

OWNER ADDRESS: 400 DUPONT CIR

LOUISVILLE KY 40207

TANK INFORMATION

TANK TYPE: UST

TANK CONTENTS: Z Hazardous Substance

TANK CAPACITY: 1000 TANK ID: 30904 TANK TAG: 11260-1

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=11260

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 97 **DIST/DIR:** 0.01 -E **ELEVATION:** 5227 **MAP ID:** 6

NAME: PETRY VAPPI CONSTRUCTION CO

REV: 04/01/11

 ADDRESS:
 646 MARIPOSA
 ID1:
 2680

 DENVER CO 80204
 ID2:

CONTACT: STATUS: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 3878

**OWNER NAME:** N G PETRY CONSTRUCTION CO;

**OWNER ADDRESS:** 950 17TH ST STE 2250

DENVER CO 80202

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 10000

 TANK ID:
 7436

 TANK TAG:
 2680-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 1500

 TANK ID:
 7437

 TANK TAG:
 2680-2

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 1000

 TANK ID:
 7438

 TANK TAG:
 2680-3

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

RCRANLR

**SEARCH ID:** 36 **DIST/DIR:** 0.02 NW **ELEVATION:** 5207 **MAP ID:** 7

NAME: SEARS ROEBUCK AND COMPANY REV: 1/11/11

DENVER CO 80219 ID2:

DENVER STATUS: NLR

CONTACT: PHONE:

SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: **CLOSURE WORKLOAD:** ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

#### NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### **VIOLATION INFORMATION:**

#### HAZARDOUS WASTE INFORMATION:

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

D002 - Corrosive waste

D001 - Ignitable waste

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

UST

SEARCH ID: 104 **DIST/DIR:** 0.02 NW **ELEVATION:** 5207 7 MAP ID:

NAME: SEARS WAREHOUSE **REV:** 04/01/11 **ADDRESS:** 701 OSAGE ST

16080 ID1: DENVER CO 80210 ID2:

DENVER STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17683

OWNER NAME: CCOD PARKWAY CENTER; OWNER ADDRESS: 1391 SPEER BLVD 7TH FLOOR

DENVER CO 80204

TANK INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 34 **DIST/DIR:** 0.04 SW **ELEVATION:** 5210 **MAP ID:** 8

NAME: PPG INDUSTRIES INC REV: 1/11/11

ADDRESS: 590 QUIVAS ST ID1: COD078343613

DENVER CO 80204 ID2:

STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

**SITE INFORMATION** 

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

**HAZARDOUS WASTE INFORMATION:** 

D000

D001 - Ignitable waste

D002 - Corrosive waste

F002 - The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene,

1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoro

6TH AVENUE BRIDGE **Target Property: JOB:** 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 98 **DIST/DIR:** 0.04 SW **ELEVATION:** 5210 MAP ID: 8

NAME: **REV:** PPG INDUSTRIES INC 04/01/11 **ADDRESS:** 590 QUIVAS ST

7592 ID1: DENVER CO 80204 ID2:

STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 4266

OWNER NAME: PPG INDUSTRIES INC; OWNER ADDRESS: 590 OUIVAS ST

DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 19972 TANK TAG: 7592-1

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

REV:

ID2:

**SEARCH ID:** 64 **DIST/DIR:** 0.05 SW **ELEVATION:** 5211 MAP ID: 9

NAME: UNKNOWN

ADDRESS: 1701 WEST W. 6TH AVE CO97-471 ID1:

DENVER CO **DENVER** 

STATUS: CONTACT: PHONE:

**SOURCE: CDPHE** 

PRP INFORMATION

PRP NAME: UNKNOWN

PRP CONTACT: PRP ADDRESS:

SPILL INFORMATION

**EVENT DATE:** 10/7/1997 **MATERIAL TYPE:** OIL

**MATERIAL1:** OILS.DIESEL **QUANTITY1:** 0 UNKNOWN

WATER QUANTITY1:

**MATERIAL2:** 

**QUANTITY2:** 0 WATER QUANTITY2: 0

**MATERIAL3: QUANTITY3:** 0 WATER QUANTITY3: 0

UNKNOWN **SOURCE: SOURCE TYPE:** UNKNOWN

**MEDIUM:** LAND AND GROUND WATER

WATERWAY:

**CAUSE:** UNKNOWN **CAUSE INFO:** UNKNOWN

**ACTION:** 

**RESPONSE COMMENTS:** HE ALSO STATED THAT LAST YEAR THE DENVER WATER BOARD, WHICH IS ALOS

NEXT TO UNION PACIFIC RR, HAD THE SAME PROBLEM.

WHILE DIGGING A TRENCH, GROUNDWATER CAME IN AND DIESEL WAS FLOATING

ON TOP. CALLER STATES THAT UNION PACIFIC RR IS NEXT DOOR and HAS HAD SEVERAL SPILLS IN THEPAST.

ADDITIONAL COMMENTS:

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

SEARCH ID: 46 **DIST/DIR:** 0.06 N-**ELEVATION:** 5227 MAP ID: 10

NAME: NEIMAN SALVAGE YARD REV: 4/27/1992 ADDRESS:

WEST JUST OF 7TH and MARIPOSA ID1: 265078 DENVER/CENTRAL CO 80204 ID2:

**DENVER** STATUS: FIXED FACILITY

**CONTACT:** PHONE: SOURCE:

SPILL INFORMATION

EPA

DATE OF SPILL: 4/27/1992 TIME OF SPILL: 0000

PRODUCT RELEASED (1): BURNING OF SALVAGE GARBAGE

**QUANTITY (1): UNITS** (1): UNK

PRODUCT RELEASED (2):

QUANTITY (2): **UNITS (2):** 

PRODUCT RELEASED (3):

**QUANTITY (3): UNITS (3):** 

MEDIUM/MEDIA AFFECTED

AIR: YES GROUNDWATER: NO LAND: NO FIXED FACILITY: NO WATER: OTHER: NO

WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE

**DUMPING: EQUIPMENT FAILURE:** NO NO NATURAL PHENOMENON: NO **OPERATOR ERROR:** YES OTHER CAUSE: TRANSP. ACCIDENT: NO NO

UNKNOWN: NO

ACTIONS TAKEN: NOTIFIED COLO DEPT OF HEALTH

RELEASE DETECTION: SALVAGE YARD OPEN BURNING OF TRASH IN 55 GAL DRUMS.

MISC. NOTES: CALLER ALLEGED SALVAGE YARD WAS BURNING MATERIAL - BAD FUMES/ODORS. SALVAGE YAR MAY

BE IN VIOLATION OF OPEN BURNING REG S.

**DISCHARGER INFORMATION** 

DISCHARGER ID: 265078 **DUN and BRADSTREET:** 

TYPE OF DISCHARGER: PRIVATE CITIZEN NAME OF DISCHARGER: NEIMAN SALVAGE YARD

ADDRESS: 730 NAVAJO DENVER/CENTRAL

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 130 **DIST/DIR:** 0.07 SW **ELEVATION:** 5209 **MAP ID:** 11

 NAME:
 CONRADS WAREHOUSE
 REV:
 04/04/11

 ADDRESS:
 595 QUIVAS
 ID1:
 5751

DENVER CO 80204 ID2: STATUS: CLOSED

CONTACT: PHONE:

SOURCE: COSTIS

LUST INFORMATION

 STATUS:
 Closed

 LOG DATE:
 10/18/1996

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=5751

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 83 **DIST/DIR:** 0.07 SW **ELEVATION:** 5209 **MAP ID:** 11

NAME: CONRADS INC (CURRENTLY)

REV: 04/01/11

 ADDRESS:
 595 QUIVAS
 ID1:
 7836

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17701 OWNER NAME: UNKNOWN;

OWNER ADDRESS: UNKNOWN

ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Z Unknown

 TANK CAPACITY:
 2000

 TANK ID:
 20587

 TANK TAG:
 7836-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Z Unknown

 TANK CAPACITY:
 999999999

 TANK ID:
 20588

 TANK TAG:
 7836-2

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

UST

SEARCH ID: 84 **DIST/DIR:** 0.07 SW **ELEVATION:** 5209 MAP ID: 11

NAME: CONRADS WAREHOUSE **REV:** 04/01/11 **ADDRESS:** 595 QUIVAS

13770 ID1: DENVER CO 80204 ID2:

STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17474

OWNER NAME: CHESLIN; HUGH OWNER ADDRESS: 785 VALLEJO ST DENVER CO 80204

TANK INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 31 **DIST/DIR:** 0.08 SW **ELEVATION:** 5206 **MAP ID:** 12

NAME: DUPONT DE NEMOURS and CO REV: 1/11/11

**ADDRESS:** 555 QUIVAS ST **ID1:** COT090011297

DENVER CO 80217 ID2:

STATUS: NLR CONTACT: PHONE:

CONTACT: P
SOURCE: EPA

#### **SITE INFORMATION**

#### **UNIVERSE INFORMATION:**

#### SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: **CLOSURE WORKLOAD:** ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### **VIOLATION INFORMATION:**

#### HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste

D002 - Corrosive waste

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

REV:

**SEARCH ID:** 57 **DIST/DIR:** 0.08 S-**ELEVATION:** 5224 MAP ID: 13

NAME: SOUTHERN PACIFIC RAILROAD

ADDRESS: 1 NORTH BLOCK OF 4TH AND NAVAJO STREETS CO96-182 ID1:

DENVER CO

ID2:

DENVER STATUS: PHONE:

**SOURCE: CDPHE** 

CONTACT:

PRP INFORMATION

PRP NAME: SOUTHERN PACIFIC RAILROAD

PRP CONTACT:

PRP ADDRESS:

DENVER CO

LAND

SPILL INFORMATION

**EVENT DATE:** 5/27/1996 **MATERIAL TYPE:** OIL

**MATERIAL1:** UNKNOWN OIL **QUANTITY1:** 500 GALLONS

WATER QUANTITY1: 0

**MATERIAL2:** 

**QUANTITY2:** 0 WATER QUANTITY2: 0

**MATERIAL3: QUANTITY3:** 0 WATER QUANTITY3: 0

**SOURCE:** UNKNOWN **SOURCE TYPE:** UNKNOWN

**MEDIUM:** WATERWAY:

**CAUSE:** UNKNOWN **CAUSE INFO:** UNKNOWN

ACTION: RELEASE ONGOING AT UNKNOWN RATE

**RESPONSE COMMENTS:** 

**COMMENTS:** CALLER STATES THAT OIL IS BUBBLING OUT OF THE GROUND AND POOLING ON A

GRAVEL ROAD.

ADDITIONAL COMMENTS:

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**UST** 

SEARCH ID: 77 **ELEVATION:** MAP ID: **DIST/DIR:** 0.08 -E 5229 14

**REV:** NAME: BELCON MECHNICAL 04/01/11 **ADDRESS:** 630 LIPAN

12739 ID1: DENVER CO 80204 ID2:

STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17141

OWNER NAME: BELCON MECHNICAL;

OWNER ADDRESS: 630 LIPAN

DENVER CO 80204

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=12739

**LUST** 

**SEARCH ID:** 120 **DIST/DIR:** 0.08 -E **ELEVATION:** 5229 MAP ID: 14

NAME: BELCON MECHNICAL **REV:** 04/04/11 ADDRESS: 630 LIPAN 3218 ID1: DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

**LUST INFORMATION** 

**STATUS:** Closed LOG DATE: 2/14/1992

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=3218

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 85 **DIST/DIR:** 0.08 -E **ELEVATION:** 5229 **MAP ID:** 14

NAME: COOK MECHANICAL SYSTEMS REV: 04/01/11

 ADDRESS:
 630 LIPAN ST
 ID1:
 930

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17701 OWNER NAME: UNKNOWN;

OWNER ADDRESS: UNKNOWN

ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 3000

 TANK ID:
 2716

 TANK TAG:
 930-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 3000

 TANK ID:
 2717

 TANK TAG:
 930-2

TANK TYPE: UST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 500

 TANK ID:
 2718

 TANK TAG:
 930-3

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 109 **DIST/DIR:** 0.08 SE **ELEVATION:** 5228 **MAP ID:** 15

 NAME:
 UNKNOWN
 REV:
 04/01/11

 ADDRESS:
 1155 WEST 5TH AVE
 ID1:
 6432

1155 WEST 5TH AVE ID1: 64
DENVER CO 80204 ID2:

CONTACT: STATUS: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 9999
OWNER NAME: UNKNOWN;

OWNER ADDRESS: UNKNOWN

ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 35 **DIST/DIR:** 0.09 SE **ELEVATION:** 5229 **MAP ID:** 16

NAME: S and W PAINTING and DECORATING REV: 1/11/11

**ADDRESS:** 575 LIPAN ST **ID1:** COR000220681

DENVER CO 80204 ID2:

DENVER STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

 SUBJCA:
 N - NO

 SUBJCA TSD 3004:
 N - NO

 SUBJCA NON TSD:
 N - NO

 SIGNIFICANT NON-COMPLIANCE(SNC):
 N - NO

BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:
---

CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:
CORRECTIVE ACTION WORKLOAD:
GENERATOR STATUS:

N - NO

INSTITUTIONAL CONTROL: N

HUMAN EXPOSURE: GW CONTROLS: LAND TYPE:

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 136 **DIST/DIR:** 0.09 NE **ELEVATION:** 5230 **MAP ID:** 17

NAME: JEBCO HEATING and AIR CONDITIONING REV: 04/04/11 ADDRESS: 666 LIPAN ST ID1: 8929

DENVER CO 80209 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed

**LOG DATE:** 5/20/2002 8:52:47 AM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=8929

UST

**SEARCH ID:** 92 **DIST/DIR:** 0.09 NE **ELEVATION:** 5230 **MAP ID:** 17

 NAME:
 JEBCO HEATING and AIR CONDITIONING
 REV:
 04/01/11

 ADDRESS:
 666 LIPAN ST
 ID1:
 5698

 ORESS:
 666 LIPAN ST
 ID1:
 5698

 DENVER CO 80209
 ID2:

STATUS: PHONE:

CONTACT: SOURCE: COSTIS

**OWNER INFORMATION** 

OWNER ID NUMBER: 18818

OWNER NAME:

OWNER ADDRESS: PO BOX 1619

GRAND LAKE CO 80447

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Z Unknown

 TANK CAPACITY:
 999999999

 TANK ID:
 15536

 TANK TAG:
 5698-1

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 101 **DIST/DIR:** 0.09 SE **ELEVATION:** 5230 **MAP ID:** 18

NAME: ROBERT OHOWELL PROPERTY REV: 04/01/11

 ADDRESS:
 550 LIPAN ST
 ID1:
 10795

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 4533

**OWNER NAME:** OHOWELL; ROBERT **OWNER ADDRESS:** 550 LIPAN ST

DENVER CO 80204

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 500

 TANK ID:
 29418

 TANK TAG:
 10795-1

**Target Property:** 6TH AVENUE BRIDGE JOB: 11137801.3000 DENVER CO 80204

NPL

SEARCH ID: 3 DIST/DIR: 0.10 SE ELEVATION: MAP ID: 19

NAME: DENVER RADIUM SITE 95 REV: 10/08/08

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955M

DENVER CO 80204

DENVER CO 80204

DENVER

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STATUS: FINAL

PHONE: 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

**CONSTRUCTION COMPLETED DATE:** 09/27/2006

**FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	04-15-2008	09-30-2008
risk/health assessment	EPA Fund-Financed	04-12-2005	10-13-2005
prospective purchaser agreement assessment	Federal Enforcement	11-26-2002	06-03-2005

- Continued on next page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

JOB: 11137801.3000

NPL							
SEARCH ID: 3 DIST/DIR:	0.10 SE	ELEVATION:	MAP ID:	19			
NAME: DENVER RADIUM SITE 95 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955M 0800247M FINAL 3033126707				
forward planning activity/management assistance	EPA Fund-Financed	09-15-2000	09-27-2000				
preparation of cost document package	Federal Enforcement	09-02-2000	10-19-2001				
remedial design/remedial action negotiations	Federal Enforcement	06-15-2000	10-10-2001				
issue request letters (104e)	Federal Enforcement	03-28-2000	03-28-2000				
national priorities list responsible party search	Federal Enforcement Primary	03-02-2000	03-28-2000				
national priorities list responsible party search	Federal Enforcement Primary	03-01-2000	03-28-2000				
groundwater monitoring (post-record of decision)	Responsible Party Primary	02-28-2000	08-26-2002				
community advisory group	Community Organizat	ion 01-01-2000	08-16-2006				
preparation of cost document package	Federal Enforcement	11-29-1999	01-25-2000				
combined remedial investigation/feasibility study	EPA Fund-Financed	11-15-1999	06-16-2000				
five-year review	EPA Fund-Financed Primary	06-10-1999	12-21-1999				
preparation of cost document package	Federal Enforcement	10-21-1998	12-15-1998				
five-year review	EPA Fund-Financed Primary	01-15-1998	09-30-2003				
national priorities list responsible party search	Federal Enforcement Primary	03-08-1995	03-30-1995				
preparation of cost document package	Federal Enforcement Primary	02-26-1994	07-11-1994				
preparation of cost document package	Federal Enforcement Primary	12-31-1993	02-25-1994				
potentially responsible party removal Cleaned up	Responsible Party Primary	06-29-1993	08-27-1993				
		- Ca	ntinued on next page -				

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

NPL							
SEARCH ID: 3 DIST/DIR:	0.10 SE	ELEVATION:	<b>MAP ID:</b> 19				
NAME: DENVER RADIUM SITE 95 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955M 0800247M FINAL 3033126707				
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993				
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993				
five-year review	EPA Fund-Financed Primary	04-05-1993	09-12-1994				
potentially responsible party remedial action	Responsible Party Primary	03-31-1993 Other Complet	06-16-2000 tion Anomaly				
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10-26-1992	06-29-1994				
potentially responsible party remedial design	Responsible Party Alternate	06-07-1992	03-31-1993				
potentially responsible party remedial design	Responsible Party Primary	06-07-1992	06-27-1996				
remedial design/remedial action negotiations	Federal Enforcement Primary	01-28-1992	08-21-1992				
preparation of cost document package	Federal Enforcement Primary	12-30-1991	02-11-1994				
state support agency cooperative agreement	State, Fund Financed Primary	07-25-1991	09-25-2000				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	07-17-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	09-09-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-11-1991	08-08-1991				
national priorities list responsible party search	Federal Enforcement	05-24-1991	05-24-1991				
preparation of cost document package	Federal Enforcement Primary	03-30-1991	09-30-1991				
national priorities list responsible party search	Federal Enforcement Primary	01-21-1991	07-23-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	06-21-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	05-29-1992				
•		- Ca	ontinued on next page -				

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

6TH AVENUE BRIDGE JOB: 11137801.3000

NPL							
SEARCH ID: 3 DIST/DIR:	0.10 SE	ELEVATION:	MA	<b>AP ID:</b> 19			
NAME: DENVER RADIUM SITE 95 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		ID1: C ID2: 0 STATUS: F	0/08/08 COD980716955M 800247M INAL 033126707				
state support agency cooperative agreement	Federal Enforcement Primary	08-06-1990	09-29-1992				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	07-01-1988	09-12-1988				
state support agency cooperative agreement	State, Fund Financed Primary	02-12-1988	07-20-1989				
potentially responsible party remedial design	Responsible Party Primary	12-11-1987	03-01-1990				
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	08-03-1987	03-31-1988				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	07-22-1987	08-25-1987				
remedial investigation/feasibility study workplan approv	al by hq Primary	Federal Enforcement	ent 04-30-1987	06-29-1987			
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	03-24-1987	06-02-1987				
national priorities list responsible party search	Federal Enforcement Primary	09-12-1986	03-01-1990				
national priorities list responsible party search	Federal Enforcement	05-08-1986	01-16-1987				
state support agency cooperative agreement	State, Fund Financed Primary	04-10-1986	04-11-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-16-1985	05-08-1986				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-16-1985	01-16-1987				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	11-26-1984	01-16-1985				
remedial investigation/feasibility study workplan approv	al by hq Primary	EPA Fund-Finance	ed 01-03-1984	01-03-1984			
state support agency cooperative agreement	State, Fund Financed Primary	08-19-1983	11-14-2000				
remedial investigation/feasibility study workplan approv	al by hq Primary	State, Fund Finance	ced 12-31-1981	12-31-1981			
notice letters issued	Federal Enforcement		08-10-1982				
		- Conti	inued on next po	age -			

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

JOB: 11137801.3000

NPL							
SEARCH ID: 3 DIST/DIR:	0.10 SE	ELEVATION:	<b>MAP ID:</b> 19				
NAME: DENVER RADIUM SITE 95 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955M 0800247M FINAL 3033126707				
notice letters issued	EPA Fund-Financed		08-10-1982				
hazard ranking system package	EPA Fund-Financed		12-01-1982				
proposal to national priorities list	EPA Fund-Financed		12-30-1982				
final listing on national priorities list	EPA Fund-Financed		09-08-1983				
notice letters issued	EPA Fund-Financed		12-28-1984				
issue request letters (104e)	Federal Enforcement		12-28-1984				
notice letters issued	Federal Enforcement		12-28-1984				
issue request letters (104e)	Federal Enforcement		05-22-1987				
notice letters issued	Federal Enforcement		05-22-1987				
notice letters issued	EPA Fund-Financed		05-22-1987				
issue request letters (104e)	Federal Enforcement		06-03-1987				
special notice issued	Federal Enforcement		07-01-1987				
issue request letters (104e)	Federal Enforcement		07-23-1987				
notice letters issued	Federal Enforcement		10-29-1987				
notice letters issued	EPA Fund-Financed		10-29-1987				
issue request letters (104e)	Federal Enforcement		05-13-1988				
administrative order on consent	Federal Enforcement Primary		07-22-1988				
	- More Dei	tails Exist For This S	ite; Max Page Limit Reached -				

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

RCRAGN							
SEARCH ID: 22 DIS	Γ/DIR:	0.10 SE		ELEVATION:	5230	MAP ID:	20
NAME: MILE HI BODY SHOP INC ADDRESS: 519 LIPAN ST DENVER CO 80204				REV: ID1: ID2: STATUS:	1/11/11 COR000217497 VGN		
CONTACT: SOURCE: EPA				PHONE:			
CONTACT INFORMATION:	GERALD 30359546	L DANNER 46					
UNIVERSE INFORMATION:							
GOVERNMENT PERFORMANCE AND RE	ESULTS A	, ,					
GPRA CA BASELINE UNIVERSE: GPRA CA 2008:			NO NO				
SUBJECT TO CORRECTIVE ACTION (SU	BJCA)						
SUBJCA: SUBJCA TSD 3004:			NO NO				
SUBJCA NON TSD:			NO				
SUBJCA TSD DISCRETION:			NO				
PERMIT WORKLOAD:							
CLOSURE WORKLOAD:							
POST CLOSURE WORKLOAD:							
PERMITTING /CLOSURE/POST-CLOSU	DE DDAC	DECC.					
CORRECTIVE ACTION WORKLOAD:	KE PKUG		NO				
GENERATOR STATUS:			CEG				
TRANSPORTER:			NO				
UNIVERSAL WASTE:			NO				
RECYCLER:			NO				
USED OIL:			NO				
IMPORTER:			NO				
MIXED WASTE GENERATOR:			NO				
ONSITE BURNER EXEMPT:			NO NO				
FURNACE EXEMPTION: UNDERGROUND INJECTION:			NO NO				
NAIC 1: NAIC 2: NAIC 3: NAIC 4:			Automotiv	e Body, Paint, and Interio	or Repair and Mainte	nance	

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 50 **DIST/DIR:** 0.10 S- **ELEVATION:** 5225 **MAP ID:** 21

NAME:SOUTHERN PACIFIC RAILROADREV:5/27/96ADDRESS:1 NORTH BLOCK OF 4TH AND NAVAJO STREETID1:495114

1 NORTH BLOCK OF 4TH AND NAVAJO STREET ID1: DENVER CO ID2:

DENVER STATUS: UNKNOWN (EPA REGIONS)

CONTACT: PHONE:

SOURCE: EPA

SPILL INFORMATION

**DATE OF SPILL:** 5/27/96 **TIME OF SPILL:** 0800

PRODUCT RELEASED (1): UNKNOWN MATERIAL, OIL OR OIL-LIK

**QUANTITY (1):** 500 **UNITS (1):** GAL

PRODUCT RELEASED (2):

QUANTITY (2): UNITS (2):

PRODUCT RELEASED (3):

QUANTITY (3): UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO GROUNDWATER: NO LAND: YES FIXED FACILITY: NO WATER: NO OTHER: NO

WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING:NOEQUIPMENT FAILURE:NONATURAL PHENOMENON:NOOPERATOR ERROR:NOOTHER CAUSE:NOTRANSP. ACCIDENT:NO

UNKNOWN: YES

ACTIONS TAKEN: RELEASE ONGOING AT UNKNOWN RATE

RELEASE DETECTION: UNKNOWN CALLER STATES THAT OIL IS BUBBLING OUT OF THE GROUND AND POOLING ON A GRAVEL

ROAD

MISC. NOTES: WILL NOTIFY: FIRE DEPT

DISCHARGER INFORMATION

**DISCHARGER ID:** 495114 **DUN and BRADSTREET:** 

**TYPE OF DISCHARGER:** PRIVATE ENTERPRISE

NAME OF DISCHARGER: SOUTHERN PACIFIC RAILROAD

ADDRESS:

DENVER CO

**Target Property:** 6TH AVENUE BRIDGE **JOB:** 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 44 **DIST/DIR:** 0.10 S- **ELEVATION: MAP ID:** 21

NAME: INCIDENT 343954 REV: 12/30/08

ADDRESS: 1 NORTH BLOCK OF 4TH AND NAVAJO STREETS DENVER CO

101: 343954-CO
102:

DENVER STATUS: CONTACT: PHONE:

SOURCE: NRC

INCIDENT DESCRIPTION: 5/27/96 - CALLER STATES THAT OIL IS BUBBLING OUT OF THE GROUND AND

POOLING ONA GRAVEL ROAD

MATERIAL: AMOUNT:

LINK: http://www.nrc.uscg.mil/reports/rwservlet?standard\_web+inc\_seq=343954

UST

**SEARCH ID:** 87 **DIST/DIR:** 0.10 SE **ELEVATION:** 5230 **MAP ID:** 22

 NAME:
 D and S WHOLESALE
 REV:
 04/01/11

 ADDRESS:
 515 LIPAN
 ID1:
 17022

RESS: 515 LIPAN ID1: 17022 DENVER CO 80223 ID2:

DENVER STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 19523

OWNER NAME:

OWNER ADDRESS: DIVISION OF OIL and PUBLIC SAFETY

DENVER CO 80202

TANK INFORMATION

 TANK TYPE:
 LPG

 TANK CONTENTS:
 LPG

 TANK CAPACITY:
 500

 TANK ID:
 37299

 TANK TAG:
 17022-1

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

**LUST** 

SEARCH ID: 142 **DIST/DIR:** 0.10 S-**ELEVATION:** 5222 23 MAP ID:

NAME: RIO GRANDE CO RESIDENTIAL PRODUCTS DIV **REV:** 04/04/11 ADDRESS: 500 OSAGE ST

ID1: 9337 DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed

LOG DATE: 9/15/2003 9:17:25 AM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=9337

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 100 **DIST/DIR:** 0.10 S- **ELEVATION:** 5222 **MAP ID:** 23

NAME: RIO GRANDE CO RESIDENTIAL PRODUCTS DIV REV: 04/01/11

 ADDRESS:
 500 OSAGE ST
 ID1:
 7940

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 4492

OWNER NAME:

**OWNER ADDRESS:** 201 SANTA FE DR

DENVER CO 80223

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 999999999

 TANK ID:
 20790

 TANK TAG:
 7940-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Z Unknown

 TANK CAPACITY:
 999999999

 TANK ID:
 20791

 TANK TAG:
 7940-2

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 111 **DIST/DIR:** 0.10 S- **ELEVATION:** 5221 **MAP ID:** 24

 NAME:
 5TH and OSAGE
 REV:
 12/01/08

 ADDRESS:
 5TH and OSAGE
 ID1:
 LTT-86

DENVER CO ID2:

DENVER STATUS: UNKNOWN

CONTACT: PHONE: SOURCE: CDPHE

LUST TRUST TANK SITES

**SOURCE OF DATA:** From an old CDPHE list of locations where tank leaks were suspected and LUST Trust funds were used in an effort to identify the source. Often, the source was found nearby and was entered in the LUST database (now COSTIS).

This listing not entered into COSTIS back when CDPHE transferred responsibility for tank leaks to OPS. Few people at OPS know of this old CDPHE list, and any associated files are thought to have been disposed of or misplaced.

UST

**SEARCH ID:** 82 **DIST/DIR:** 0.11 S- **ELEVATION:** 5222 **MAP ID:** 25

 NAME:
 CHAMPION FENCE CO
 REV:
 04/01/11

 ADDRESS:
 490 OSAGE ST
 ID1:
 12817

490 OSAGE ST ID1: 12817 DENVER CO 80204 ID2:

STATUS:
PHONE:

**SOURCE:** COSTIS

**CONTACT:** 

OWNER INFORMATION

OWNER ID NUMBER: 17701
OWNER NAME: UNKNOWN;
OWNER ADDRESS: UNKNOWN

ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**REV:** 

**SEARCH ID:** 106 **DIST/DIR:** 0.11 S- **ELEVATION:** 5222 **MAP ID:** 25

NAME: SOUTHWEST PROPERTIES

**ADDRESS:** 490 OSAGE ST **ID1:** 6064

DENVER CO 80216 ID2: STATUS:

CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 9999

OWNER NAME: UNKNOWN; OWNER ADDRESS: UNKNOWN

ZIPCODE UNKNOWN XX 99999

TANK INFORMATION

**LUST** 

**SEARCH ID:** 127 **DIST/DIR:** 0.11 S- **ELEVATION:** 5222 **MAP ID:** 25

 NAME:
 CHAMPION FENCE CO
 REV:
 04/04/11

 ADDRESS:
 490 OSAGE ST
 ID1:
 1739

 DENVER CO 80204
 ID2:

DENVER STATUS: CLOSED CONTACT: PHONE:

CONTACT: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 10/25/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=1739

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 95 **DIST/DIR:** 0.12 SE **ELEVATION:** 5230 **MAP ID:** 26

NAME: MASTERS STUDIO REV: 04/01/11

 ADDRESS:
 1140 WEST 5TH AVE DENVER CO 80204
 ID1: 5824

STATUS: PHONE:

CONTACT: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 4043

OWNER NAME: MASTERS STUDIO; OWNER ADDRESS: 1455 W 5TH AVE

DENVER CO 80204

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 8000

 TANK ID:
 15889

 TANK TAG:
 5824-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 950

 TANK ID:
 15890

 TANK TAG:
 5824-2

 $\textbf{LINK:} \quad http://cost is.cdle.state.co.us/facility.asp?h\_id=5824$ 

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 94 **DIST/DIR:** 0.12 SE **ELEVATION:** 5230 **MAP ID:** 26

 NAME:
 MASTERS STUDIO
 REV:
 04/01/11

 ADDRESS:
 1140 WEST 5TH AVE
 ID1:
 12953

DENVER CO 80204 ID2:

CONTACT: STATUS: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 16087

OWNER NAME: RUNYAN; JERALD
OWNER ADDRESS: 7309 CARR ST
ARVADA CO 80005

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=12953

**LUST** 

**SEARCH ID:** 139 **DIST/DIR:** 0.12 SE **ELEVATION:** 5230 **MAP ID:** 26

 NAME:
 MASTERS STUDIO
 REV:
 04/04/11

 ADDRESS:
 1140 WEST 5TH AVE DENVER CO 80204
 ID1:
 4740

 ID2:
 ID2:

DENVER CO 80204
DENVER
STATUS: CLOSED
CT: PHONE:

CONTACT: SOURCE: COSTIS

LUST INFORMATION

**STATUS:** Closed **LOG DATE:** 4/15/1994

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=4740

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 102 **DIST/DIR:** 0.12 N- **ELEVATION:** 5230 **MAP ID:** 27

NAME: RODERICK R BROWN PROPERTY REV: 04/01/11

 ADDRESS:
 751 MARIPOSA ST
 ID1:
 10322

 DENVER CO 80204
 ID2:

STATUS: ONTACT: PHONE:

CONTACT: PHON SOURCE: COSTIS

**OWNER INFORMATION** 

OWNER ID NUMBER: 4576

OWNER NAME:BROWN; RODERICKOWNER ADDRESS:6175 S JASMINE ST

ENGLEWOOD CO 80111

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 27956

 TANK TAG:
 10322-1

**Target Property:** 6TH AVENUE BRIDGE JOB: 11137801.3000 DENVER CO 80204

**CERCLIS** 

**SEARCH ID:** 9 **DIST/DIR:** 0.13 SE **ELEVATION:** 5227 **MAP ID:** 28

NAME:DENVER RADIUM SITE 94REV:10/08/08ADDRESS:VARIOUS PLACES IN DENVERID1:COD980'

 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955L

 DENVER CO 80204
 ID2:
 0800247L

 DENVER
 STATUS:
 FINAL

 LACK WHATE
 PRONE:
 2022107707

CONTACT: JACK WHYTE PHONE: 3033126707 SOURCE: EPA

SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	04-15-2008	09-30-2008
risk/health assessment	EPA Fund-Financed	04-12-2005	10-13-2005
prospective purchaser agreement assessment	Federal Enforcement	11-26-2002	06-03-2005

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

	CERCLIS							
SEARCH 1	<b>ID:</b> 9	DIST/DIR:	0.13 SE	ELEVATION:	5227	MAP ID:	28	
ADDRESS: CONTACT:	DENVER RADI VARIOUS PLA DENVER CO 80 DENVER JACK WHYTE EPA	CES IN DENVER		REV: ID1: ID2: STATUS PHONE:				
forward plann	ning activity/mana	agement assistance	EPA Fund-Financed	09-15-200	00 09-27-200	0		
preparation of	f cost document p	oackage	Federal Enforcement	09-02-200	00 10-19-200	1		
remedial desig	gn/remedial action	n negotiations	Federal Enforcement	06-15-200	00 10-10-200	1		
issue request	letters (104e)		Federal Enforcement	03-28-200	00 03-28-200	0		
national prior	ities list responsib	ble party search	Federal Enforcement Primary	03-02-200	00 03-28-200	0		
national prior	rities list responsib	ble party search	Federal Enforcement Primary	03-01-200	00 03-28-200	0		
groundwater i	monitoring (post-	record of decision)	Responsible Party Primary	02-28-200	00 08-26-200	2		
community ac	dvisory group		Community Organizati	on 01-01-200	00 08-16-200	6		
preparation of	f cost document p	oackage	Federal Enforcement	11-29-199	01-25-200	0		
combined ren	nedial investigation	on/feasibility study	EPA Fund-Financed	11-15-199	99 06-16-200	0		
five-year revi	iew		EPA Fund-Financed Primary	06-10-199	99 12-21-199	9		
preparation of	f cost document p	oackage	Federal Enforcement	10-21-199	98 12-15-199	8		
five-year revi	iew		EPA Fund-Financed Primary	01-15-199	09-30-200	3		
national prior	rities list responsib	ble party search	Federal Enforcement Primary	03-08-199	03-30-199	5		
preparation of	f cost document p	oackage	Federal Enforcement Primary	02-26-199	07-11-199	4		
preparation of	f cost document p	oackage	Federal Enforcement Primary	12-31-199	02-25-199	4		
potentially res Cleaned up	sponsible party re	emoval	Responsible Party Primary	06-29-199	08-27-199	3		
					- Continued on nex	ct page -		

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

	CE	RCLIS		
SEARCH ID: 9 DIST/DI	<b>R:</b> 0.13 SE	ELEVATION:	5227 I	MAP ID: 28
NAME: DENVER RADIUM SITE 94 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955L 0800247L FINAL 3033126707	
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993	
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993	
five-year review	EPA Fund-Financed Primary	04-05-1993	09-12-1994	
potentially responsible party remedial action	Responsible Party Primary	03-31-1993 Other Comp	06-16-2000 letion Anomaly	
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10-26-1992	06-29-1994	
potentially responsible party remedial design	Responsible Party Alternate	06-07-1992	03-31-1993	
potentially responsible party remedial design	Responsible Party Primary	06-07-1992	06-27-1996	
remedial design/remedial action negotiations	Federal Enforcement Primary	01-28-1992	08-21-1992	
preparation of cost document package	Federal Enforcement Primary	12-30-1991	02-11-1994	
state support agency cooperative agreement	State, Fund Financed Primary	07-25-1991	09-25-2000	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	07-17-1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	09-09-1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-11-1991	08-08-1991	
national priorities list responsible party search	Federal Enforcement	05-24-1991	05-24-1991	
preparation of cost document package	Federal Enforcement Primary	03-30-1991	09-30-1991	
national priorities list responsible party search	Federal Enforcement Primary	01-21-1991	07-23-1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	06-21-1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	05-29-1992	
		- (	Continued on next	t page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

6TH AVENUE BRIDGE JOB: 11137801.3000

				CE	RCLIS		
SEARCH	ID:	9	DIST/DIR:	0.13 SE	ELEVATION:	5227	<b>MAP ID:</b> 28
NAME: ADDRESS: CONTACT: SOURCE:	VAR DEN' DEN'	VER CO 8020 VER	ES IN DENVER		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955 0800247L FINAL 3033126707	SL
state support	agency	y cooperative	· ·	Federal Enforcement Primary	08-06-1990	09-29-199	92
national prior Search Compl		st responsible able PRPs	party search	Federal Enforcement	07-01-1988	09-12-198	88
state support	agency	cooperative	0	State, Fund Financed Primary	02-12-1988	07-20-198	89
potentially re	esponsi	ble party rem		Responsible Party Primary	12-11-1987	03-01-199	90
remedial inve	estigati	on/feasibility	study negotiations	Federal Enforcement Alternate	08-03-1987	03-31-198	88
national prior Search Compl		st responsible able PRPs	party search	Federal Enforcement	07-22-1987	08-25-198	87
remedial inve	estigati	on/feasibility	study workplan approva	l by hq Primary	Federal Enfo	rcement 04-30-198	87 06-29-1987
national prior Search Compl			party search	Federal Enforcement	03-24-1987	06-02-198	87
national prior	rities li	st responsible		Federal Enforcement Primary	09-12-1986	03-01-199	90
national prior	rities li	st responsible	party search	Federal Enforcement	05-08-1986	01-16-198	87
state support	agency	cooperative		State, Fund Financed Primary	04-10-1986	04-11-199	91
national prior Search Compl		st responsible able PRPs	party search	Federal Enforcement	01-16-1985	05-08-198	86
national prior Search Compl		st responsible able PRPs	party search	Federal Enforcement	01-16-1985	01-16-198	87
national prior Search Compl		st responsible able PRPs	party search	Federal Enforcement	11-26-1984	01-16-198	35
remedial inve	estigati	on/feasibility	study workplan approva	l by hq Primary	EPA Fund-Fi	nanced 01-03-198	84 01-03-1984
state support	agency	y cooperative	•	State, Fund Financed Primary	08-19-1983	11-14-200	00
remedial inve	estigati	on/feasibility	study workplan approva	l by hq Primary	State, Fund F	inanced 12-31-198	81 12-31-1981
notice letters	issued			Federal Enforcement		08-10-198	82
					- 0	Continued on ne	xt page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204 **CERCLIS SEARCH ID:** 9 **DIST/DIR:** 0.13 SE **ELEVATION:** 5227 MAP ID: 28 NAME: **DENVER RADIUM SITE 94** REV: 10/08/08 ADDRESS: VARIOUS PLACES IN DENVER COD980716955L ID1: DENVER CO 80204 0800247L ID2: STATUS: DENVER FINAL CONTACT: JACK WHYTE PHONE: 3033126707 SOURCE: EPA notice letters issued EPA Fund-Financed 08-10-1982 **EPA Fund-Financed** 12-01-1982 hazard ranking system package **EPA Fund-Financed** 12-30-1982 proposal to national priorities list final listing on national priorities list **EPA Fund-Financed** 09-08-1983 EPA Fund-Financed notice letters issued 12-28-1984 Federal Enforcement issue request letters (104e) 12-28-1984 notice letters issued Federal Enforcement 12-28-1984 issue request letters (104e) Federal Enforcement 05-22-1987 notice letters issued Federal Enforcement 05-22-1987 notice letters issued EPA Fund-Financed 05-22-1987 Federal Enforcement issue request letters (104e) 06-03-1987 Federal Enforcement special notice issued 07-01-1987 issue request letters (104e) Federal Enforcement 07-23-1987 notice letters issued Federal Enforcement 10-29-1987 notice letters issued EPA Fund-Financed 10-29-1987 issue request letters (104e) Federal Enforcement 05-13-1988 administrative order on consent Federal Enforcement 07-22-1988 Primary - More Details Exist For This Site; Max Page Limit Reached -

**Target Property:** 6TH AVENUE BRIDGE JOB: 11137801.3000 DENVER CO 80204

CERCLIS

**SEARCH ID:** 10 **DIST/DIR:** 0.13 SE **ELEVATION:** 5229 **MAP ID:** 29

NAME: DENVER RADIUM SITE 95 REV: 10/08/08

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955M

 DENVER CO 80204
 ID2:
 0800247M

 DENVER
 STATUS:
 FINAL

 CONTACT:
 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	04-15-2008	09-30-2008
risk/health assessment	EPA Fund-Financed	04-12-2005	10-13-2005
prospective purchaser agreement assessment	Federal Enforcement	11-26-2002	06-03-2005

- Continued on next page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

CERCLIS						
SEARCH ID: 10	DIST/DIR:	0.13 SE	ELEVATION:	5229	MAP ID: 29	
NAME: DENVER RAD ADDRESS: VARIOUS PLA DENVER CO 8 DENVER CONTACT: JACK WHYTE SOURCE: EPA	ACES IN DENVER		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955M 0800247M FINAL 3033126707	1	
forward planning activity/man	agement assistance	EPA Fund-Financed	09-15-2000	09-27-2000		
preparation of cost document p	package	Federal Enforcement	09-02-2000	10-19-2001		
remedial design/remedial action	on negotiations	Federal Enforcement	06-15-2000	10-10-2001		
issue request letters (104e)		Federal Enforcement	03-28-2000	03-28-2000		
national priorities list responsi	ble party search	Federal Enforcement Primary	03-02-2000	03-28-2000	)	
national priorities list responsi	ble party search	Federal Enforcement Primary	03-01-2000	03-28-2000	1	
groundwater monitoring (post-	-record of decision)	Responsible Party Primary	02-28-2000	08-26-2002		
community advisory group		Community Organization	on 01-01-2000	08-16-2006	j	
preparation of cost document p	package	Federal Enforcement	11-29-1999	01-25-2000		
combined remedial investigation	on/feasibility study	EPA Fund-Financed	11-15-1999	06-16-2000		
five-year review		EPA Fund-Financed Primary	06-10-1999	12-21-1999		
preparation of cost document p	package	Federal Enforcement	10-21-1998	12-15-1998	1	
five-year review		EPA Fund-Financed Primary	01-15-1998	09-30-2003	:	
national priorities list responsi	ble party search	Federal Enforcement Primary	03-08-1995	03-30-1995		
preparation of cost document package		Federal Enforcement Primary	02-26-1994	07-11-1994		
preparation of cost document package		Federal Enforcement Primary	12-31-1993	02-25-1994		
potentially responsible party removal Cleaned up		Responsible Party Primary	06-29-1993	08-27-1993	1	
			- (	Continued on nex	t page -	

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

CERCLIS							
SEARCH ID: 10 DIST/I	<b>DIR:</b> 0.13 SE	ELEVATION:	5229 <b>N</b>	<b>MAP ID:</b> 29			
NAME: DENVER RADIUM SITE 95 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA	3	REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955M 0800247M FINAL 3033126707				
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993				
five-year review	EPA Fund-Financed Primary	06-01-1993	09-30-1993				
five-year review	EPA Fund-Financed Primary	04-05-1993	09-12-1994				
potentially responsible party remedial action	Responsible Party Primary	03-31-1993 Other Comp	06-16-2000 letion Anomaly				
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10-26-1992	06-29-1994				
potentially responsible party remedial design	Responsible Party Alternate	06-07-1992	03-31-1993				
potentially responsible party remedial design	Responsible Party Primary	06-07-1992	06-27-1996				
remedial design/remedial action negotiations	Federal Enforcement Primary	01-28-1992	08-21-1992				
preparation of cost document package	Federal Enforcement Primary	12-30-1991	02-11-1994				
state support agency cooperative agreement	State, Fund Financed Primary	07-25-1991	09-25-2000				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	07-17-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-26-1991	09-09-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	06-11-1991	08-08-1991				
national priorities list responsible party search	Federal Enforcement	05-24-1991	05-24-1991				
preparation of cost document package	Federal Enforcement Primary	03-30-1991	09-30-1991				
national priorities list responsible party search	Federal Enforcement Primary	01-21-1991	07-23-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	06-21-1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-09-1991	05-29-1992				
		- (	Continued on next	page -			

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

	CE	RCLIS		
SEARCH ID: 10 DIST/DIR:	0.13 SE	ELEVATION: 52	229 <b>N</b>	<b>1AP ID:</b> 29
NAME: DENVER RADIUM SITE 95 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		ID1: ID2: STATUS:	10/08/08 COD980716955M 0800247M FINAL 3033126707	
state support agency cooperative agreement	Federal Enforcement Primary	08-06-1990	09-29-1992	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	07-01-1988	09-12-1988	
state support agency cooperative agreement	State, Fund Financed Primary	02-12-1988	07-20-1989	
potentially responsible party remedial design	Responsible Party Primary	12-11-1987	03-01-1990	
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	08-03-1987	03-31-1988	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	07-22-1987	08-25-1987	
remedial investigation/feasibility study workplan approv	al by hq Primary	Federal Enforcer	ment 04-30-1987	06-29-1987
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	03-24-1987	06-02-1987	
national priorities list responsible party search	Federal Enforcement Primary	09-12-1986	03-01-1990	
national priorities list responsible party search	Federal Enforcement	05-08-1986	01-16-1987	
state support agency cooperative agreement	State, Fund Financed Primary	04-10-1986	04-11-1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-16-1985	05-08-1986	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-16-1985	01-16-1987	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	11-26-1984	01-16-1985	
remedial investigation/feasibility study workplan approv	al by hq Primary	EPA Fund-Finar	nced 01-03-1984	01-03-1984
state support agency cooperative agreement	State, Fund Financed Primary	08-19-1983	11-14-2000	
remedial investigation/feasibility study workplan approv	al by hq Primary	State, Fund Fina	nced 12-31-1981	12-31-1981
notice letters issued	Federal Enforcement		08-10-1982	
		- Con	tinued on next	page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204 **CERCLIS SEARCH ID:** 10 **DIST/DIR:** 0.13 SE **ELEVATION:** 5229 MAP ID: 29 NAME: **DENVER RADIUM SITE 95** REV: 10/08/08 VARIOUS PLACES IN DENVER COD980716955M ADDRESS: ID1: DENVER CO 80204 0800247M ID2: STATUS: DENVER FINAL CONTACT: JACK WHYTE PHONE: 3033126707 SOURCE: EPA notice letters issued EPA Fund-Financed 08-10-1982 **EPA Fund-Financed** 12-01-1982 hazard ranking system package **EPA Fund-Financed** 12-30-1982 proposal to national priorities list final listing on national priorities list **EPA Fund-Financed** 09-08-1983 EPA Fund-Financed notice letters issued 12-28-1984 Federal Enforcement issue request letters (104e) 12-28-1984 notice letters issued Federal Enforcement 12-28-1984 issue request letters (104e) Federal Enforcement 05-22-1987 notice letters issued Federal Enforcement 05-22-1987 notice letters issued EPA Fund-Financed 05-22-1987 Federal Enforcement issue request letters (104e) 06-03-1987 Federal Enforcement special notice issued 07-01-1987 issue request letters (104e) Federal Enforcement 07-23-1987 notice letters issued Federal Enforcement 10-29-1987 notice letters issued EPA Fund-Financed 10-29-1987 issue request letters (104e) Federal Enforcement 05-13-1988 administrative order on consent Federal Enforcement 07-22-1988 Primary

- More Details Exist For This Site; Max Page Limit Reached -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 96 **DIST/DIR:** 0.13 N- **ELEVATION:** 5229 **MAP ID:** 30

NAME: NEIMAN INDUSTRIAL RECYCLING REV: 04/01/11

ADDRESS: 730 NAVAJO ST ID1: 7030

DENVER CO 80204 ID2: STATUS:

CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 3904

OWNER NAME: GERALD JAY NEIMAN; OWNER ADDRESS: 5738 S KENTON ST

ENGLEWOOD CO 80111

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 1000

 TANK ID:
 18660

 TANK TAG:
 7030-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 2000

 TANK ID:
 18661

 TANK TAG:
 7030-2

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 33 **DIST/DIR:** 0.13 N- **ELEVATION:** 5229 **MAP ID:** 30

NAME: NEIMAN S INDUSTRAIL RECYCLING REV: 1/11/11

**ADDRESS:** 730 NAVAJO **ID1:** COD983776832

DENVER CO 80204 ID2:

STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

#### NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### VIOLATION INFORMATION:

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 49 **DIST/DIR:** 0.13 SE **ELEVATION:** 5232 MAP ID: 31

NAME: PUBLIC SERVICE CO OF CO REV: 11/21/1993 ADDRESS:

1046 WEST 5TH AVE ID1: 348502 DENVER CO 80202 ID2:

DENVER STATUS: PIPELINE RELATED

**CONTACT:** PHONE: SOURCE:

SPILL INFORMATION

EPA

DATE OF SPILL: 11/21/1993 TIME OF SPILL: 1300

PRODUCT RELEASED (1): NATURAL GAS

**QUANTITY (1):** 

UNITS (1): UNK

PRODUCT RELEASED (2):

QUANTITY (2): **UNITS (2):** 

PRODUCT RELEASED (3):

**QUANTITY (3): UNITS (3):** 

MEDIUM/MEDIA AFFECTED

AIR: YES **GROUNDWATER: NO** LAND: FIXED FACILITY: NO NO WATER: NO OTHER:

WATERBODY AFFECTED BY RELEASE: ATMOSPHERE

CAUSE OF RELEASE

**EQUIPMENT FAILURE: DUMPING:** NO NO NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO OTHER CAUSE: TRANSP. ACCIDENT: NO NO UNKNOWN: NO

ACTIONS TAKEN: THE FIRE WAS PUT OUT BY THE DENVER FIRE DEPT

RELEASE DETECTION: A SERVICE LINE WAS DAMAGED BY THE DENVER WATER BOARD AS THEY WERE LAYING A WATER PIPE.

GAS THEN MIGRATED INTO THE HOUSE AND EXPLODED

1 BOY WAS SLIGHTLY INJURED IN THE EXPLOSION. THE CALLER REPORTS THAT THE WATER LINE WAS PLACED DOWN ABOUT A WEEK BEFORE THE EXPLOSION. CANCELLED: TOTAL DAMAGE TO THE STRUCTURE OF LESS THAN

\$50,000, AND THERE WERE NO INJURIES.

DISCHARGER INFORMATION

**DISCHARGER ID:** 348502 **DUN and BRADSTREET:** 

PRIVATE ENTERPRISE TYPE OF DISCHARGER: NAME OF DISCHARGER: PUBLIC SERVICE CO OF CO

ADDRESS: 1257 17TH ST

DENVER CO 80202

6TH AVENUE BRIDGE 11137801.3000 **Target Property: JOB:** 

DENVER CO 80204

**ERNS** 

SEARCH ID: 43 **DIST/DIR:** 0.13 SE **ELEVATION:** MAP ID: 31

INCIDENT 209022 **REV:** 12/30/08

ADDRESS: 1046 WEST 5TH AVE 209022-CO ID1: DENVER CO 80202 ID2: **DENVER** STATUS:

CONTACT: PHONE:

SOURCE: NRC

NAME:

INCIDENT DESCRIPTION: 11/21/93 - A SERVICE LINE WAS DAMAGED BY THE DENVER WATER BOARD AS THEY

WERELAYING A WATER PIPE. GAS THEN MIGRATED INTO THE HOUSE AND EXPLODED

MATERIAL: AMOUNT:

LINK: http://www.nrc.uscg.mil/reports/rwservlet?standard\_web+inc\_seq=209022

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**UST** 

**SEARCH ID:** 86 **DIST/DIR:** 0.13 NE **ELEVATION:** 5234 MAP ID: 32

REV: NAME: CRAIG and ASSOC 04/01/11 **ADDRESS:** 745 LIPAN ST

13855 ID1: DENVER CO 80204 ID2:

STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 16080

OWNER NAME: CB PLUMBING; OWNER ADDRESS: 4115 TAFT HILL RD

FORT COLLINS CO 80524

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Z Not Listed TANK CAPACITY: 2000 TANK ID: 31564 TANK TAG: 13855-1

TANK TYPE: UST TANK CONTENTS: Z Not Listed TANK CAPACITY: 2000 TANK ID: 31565 TANK TAG: 13855-2

TANK TYPE: UST TANK CONTENTS: Z Not Listed TANK CAPACITY: 500 TANK ID: 31566 TANK TAG: 13855-3

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 131 **DIST/DIR:** 0.13 NE **ELEVATION:** 5234 **MAP ID:** 32

 NAME:
 CRAIG and ASSOC
 REV:
 04/04/11

 ADDRESS:
 745 LIPAN ST
 ID1:
 4355

745 LIPAN ST ID1: 4355 DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

 STATUS:
 Closed

 LOG DATE:
 1/16/1997

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=4355

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 41 **DIST/DIR:** 0.14 N- **ELEVATION:** 5222 **MAP ID:** 33

NAME: DENVER and RIO GRAND RAILROAD REV: 11/8/91
ADDRESS: WEST W. 8TH and OSAGE AVE ID1: 240183

DENVER/CENTRAL CO 80204 ID2:

DENVER STATUS: FIXED FACILITY

CONTACT: PHONE:

SOURCE: EPA

SPILL INFORMATION

**DATE OF SPILL:** 11/8/91 **TIME OF SPILL:** 1100

**PRODUCT RELEASED (1):** SODIUM HYDROXIDE (20 PPM)

**QUANTITY (1):** 12000 **UNITS (1):** GAL

PRODUCT RELEASED (2):

QUANTITY (2): UNITS (2):

PRODUCT RELEASED (3):

QUANTITY (3): UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO GROUNDWATER: NO LAND: YES FIXED FACILITY: NO WATER: YES OTHER: NO

WATERBODY AFFECTED BY RELEASE: STORM SEWER TO PLATTE RIVER

CAUSE OF RELEASE

DUMPING:NOEQUIPMENT FAILURE:NONATURAL PHENOMENON:NOOPERATOR ERROR:YESOTHER CAUSE:NOTRANSP. ACCIDENT:NOUNKNOWN:NO

ACTIONS TAKEN: RIEDEL IS ON SITE - BOOMING and SAMPLING

RELEASE DETECTION: STORAGE TANK FOR CLEANING SOLUTION VALVE LEFT ON BY MISTAKE

MISC. NOTES:

**DISCHARGER INFORMATION** 

DISCHARGER ID: 240183 DUN and BRADSTREET:

**TYPE OF DISCHARGER:** PRIVATE CITIZEN

NAME OF DISCHARGER: DENVER and RIO GRAND RAILROAD

ADDRESS: W. 8TH AVE. and OSAGE ST.

DENVER CO 80204-

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

SPILLS

REV:

ID2:

**SEARCH ID:** 55 **DIST/DIR:** 0.14 N- **ELEVATION:** 5222 **MAP ID:** 34

**NAME:** DENVER and RIO GRANDE RR

ADDRESS: 8TH AND OSAGE ID1: CO91-287

DENVER CO 80204

DENVER STATUS:

CONTACT: PHONE:

SOURCE: CDPHE

PRP INFORMATION

**PRP NAME:** DENVER and RIO GRANDE RR

PRP CONTACT:

PRP ADDRESS:

DENVER CO

SPILL INFORMATION

EVENT DATE: 11/7/1991
MATERIAL TYPE: HAZARDOUS

MATERIAL1: SODIUM HYDROXIDE QUANTITY1: 1000 GALLONS

WATER QUANTITY1: 0

MATERIAL2: OIL RESIDUE

**QUANTITY2:** 0 **WATER QUANTITY2:** 0

MATERIAL3:

QUANTITY3: 0
WATER QUANTITY3: 0

**SOURCE:** FIXED FACILITY

**SOURCE TYPE:** ABOVE GROUND OPEN CLEANING TANK

MEDIUM: WATER AND LAND

WATERWAY: DITCH TO SO. PLATTE RIVER

CAUSE: ERROR OPERATOR

CAUSE INFO: CONTRACTOR OPENED WRONG VALVE AND LEFT OPEN, OVERFILLING TANK WITH

WATER

ACTION: BOOMS PLACED ON DITCH FOR HYDROCARBONS, PH MEASUREMENTS TAKEN

**RESPONSE COMMENTS:** EDF CODH910095

**COMMENTS:** 

ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 145 **DIST/DIR:** 0.14 NW **ELEVATION:** 5208 **MAP ID:** 35

 NAME:
 SEARS ROEBUCK and CO
 REV:
 04/04/11

 ADDRESS:
 1701 WEST 6TH AVE
 ID1:
 8481

DENVER CO 80204 ID2:

DENVER STATUS: LUST TRUST

CONTACT: PHONE:

SOURCE: COSTIS

LUST INFORMATION

STATUS: LUST Trust LOG DATE: 3/20/2001

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=8481

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**UST** 

**SEARCH ID: ELEVATION:** 103 **DIST/DIR:** 0.14 NW 5208 MAP ID: 35

REV: NAME: SEARS ROEBUCK and CO 04/01/11

ADDRESS: 1701 WEST 6TH AVE 3026 ID1: DENVER CO 80204 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

**OWNER INFORMATION** 

OWNER ID NUMBER: 4762

OWNER NAME: SEARS ROEBUCK and CO;

OWNER ADDRESS: SEARS TOWER

CHICAGO IL 60684

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 6000 TANK ID: 8317 TANK TAG: 3026-1

TANK TYPE: UST TANK CONTENTS: 4 - Diesel TANK CAPACITY: 4000 TANK ID: 8318 TANK TAG: 3026-2

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 114 **DIST/DIR:** 0.14 NW **ELEVATION:** 5208 **MAP ID:** 35

 NAME:
 7TH and OSAGE
 REV:
 12/01/08

 ADDRESS:
 7TH and OSAGE
 ID1:
 LTT-88

DENVER CO ID2:

DENVER STATUS: UNKNOWN

CONTACT: PHONE:

SOURCE: CDPHE

#### LUST TRUST TANK SITES

SOURCE OF DATA: From an old CDPHE list of locations where tank leaks were suspected and LUST Trust funds were used in an effort to identify the source. Often, the source was found nearby and was entered in the LUST database (now COSTIS).

This listing not entered into COSTIS back when CDPHE transferred responsibility for tank leaks to OPS. Few people at OPS know of this old CDPHE list, and any associated files are thought to have been disposed of or misplaced.

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

PHONE:

SEARCH ID: 67 **DIST/DIR:** 0.15 SW **ELEVATION:** 5219 MAP ID: 36

NAME:

REV: ADDRESS: 500 QUIVAS CO97-158 ID1:

DENVER CO **DENVER** 

ID2: STATUS:

**CONTACT:** 

**SOURCE: CDPHE** 

PRP INFORMATION

PRP NAME: PRP CONTACT: PRP ADDRESS:

SPILL INFORMATION

**EVENT DATE:** 2/5/1997 **MATERIAL TYPE:** OIL

MATERIAL1: OILS.FUEL **QUANTITY1:** 0 UNKNOWN

WATER QUANTITY1:

**MATERIAL2:** 

**QUANTITY2:** 0 WATER QUANTITY2: 0

**MATERIAL3: QUANTITY3:** 0 WATER QUANTITY3: 0

UNKNOWN **SOURCE: SOURCE TYPE:** UNKNOWN **MEDIUM:** LAND

WATERWAY:

CAUSE: UNKNOWN **CAUSE INFO:** UNKNOWN

**ACTION:** 

**RESPONSE COMMENTS:** BORINGS BEHIND BUILDING ON PROPERTY, BELIEVE DIESEL OR FUEL OIL.

**COMMENTS:** BLDG DEPT RECEIVED PROPOSAL TO INSTALL MONOPOLE; CONTRACTOR DRILLED 2 SOIL BORINGS TO GET SOIL PARAMETERS FOR MONOPOLE, ENCOUNTERED DISCOLORED SOILS and HYDROCARBON ODORS IN BOTH WELLS 10-25, GW 18.

ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 90 **DIST/DIR:** 0.15 SE **ELEVATION:** 5238 **MAP ID:** 37

NAME: FORMER SERVICE STATION REV: 04/01/11

 ADDRESS:
 570 KALAMATH
 ID1:
 7454

 DENVER CO 80204
 ID2:

STATUS: PHONE:

CONTACT: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 1509

OWNER NAME:

**OWNER ADDRESS:** 910 16TH ST STE 500

DENVER CO 80202

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 8000

 TANK ID:
 19641

 TANK TAG:
 7454-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 6000

 TANK ID:
 19642

 TANK TAG:
 7454-2

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 6000

 TANK ID:
 19643

 TANK TAG:
 7454-3

TANK TYPE: UST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 550

 TANK ID:
 19644

 TANK TAG:
 7454-4

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 137 **DIST/DIR:** 0.15 SE **ELEVATION:** 5238 **MAP ID:** 37

 NAME:
 KALAMATH ASSOCIATES PROPERTY
 REV:
 04/04/11

 ADDRESS:
 570 KALAMATH ST
 ID1:
 623

570 KALAMATH ST

DENVER CO 80204

ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 9/9/1996

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=623

UST

**SEARCH ID:** 93 **DIST/DIR:** 0.15 SE **ELEVATION:** 5238 **MAP ID:** 37

 NAME:
 KALAMATH ASSOCIATES PROPERTY
 REV:
 04/01/11

 ADDRESS:
 570 KALAMATH ST
 ID1:
 13757

DENVER CO 80204 ID2:

STATUS: PHONE:

CONTACT: PHONE SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17442

**OWNER NAME:** 6TH and KALAMATH ASSOCIATES PROPERTY;

**OWNER ADDRESS:** 570 KALAMATH ST DENVER CO 80204

TANK INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 91 **DIST/DIR:** 0.15 N- **ELEVATION:** 5232 **MAP ID:** 38

NAME: FUEL FACILITY REV: 04/01/11

 ADDRESS:
 775 MARIPOSA
 ID1:
 4061

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 5985

OWNER NAME: CENTRAL UNITED LIFE INSURANCE;

**OWNER ADDRESS:** 417 COMMERCE BUILDING

SIOUX CITY IA 51101

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 999999999

 TANK ID:
 11428

 TANK TAG:
 4061-1

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 108 **DIST/DIR:** 0.15 NE **ELEVATION:** 5238 **MAP ID:** 39

NAME: STAND BY INC REV: 04/01/11

 ADDRESS:
 665 KALAMATH ST
 ID1:
 6489

 DENVER CO 80204
 ID2:

STATUS: PHONE:

CONTACT: SOURCE: COSTIS

**OWNER INFORMATION** 

OWNER ID NUMBER: 1160

OWNER NAME: WALKER; CARLENE OWNER ADDRESS: 665 KALAMATH ST

DENVER CO 80204

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 1000

 TANK ID:
 17280

 TANK TAG:
 6489-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 1000

 TANK ID:
 17281

 TANK TAG:
 6489-2

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID: ELEVATION:** MAP ID: 40 148 **DIST/DIR:** 0.16 NW 5222

REV: NAME: SOUTHERN PACIFIC RAILWAY BURNHAM YARD 04/04/11 ADDRESS:

800 SEMINOLE RD ID1: 447 DENVER CO 80201 ID2:

**DENVER** STATUS: CLOSED

**CONTACT:** PHONE: **SOURCE:** COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 4/9/1992

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=447

**LUST** 

**SEARCH ID:** 147 DIST/DIR: 0.16 NW **ELEVATION:** 5222 MAP ID: 40

SOUTHERN PACIFIC RAILWAY - BURNHAM YARD NAME: **REV:** 04/04/11 ADDRESS: 800 SEMINOLE RD ID1: DENVER CO 80201

ID2: CLOSED **DENVER** STATUS:

CONTACT: PHONE:

LUST INFORMATION

SOURCE:

COSTIS

STATUS: Closed LOG DATE: 12/4/1995

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=442

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 30 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: DENVER and RIO GRANDE WESTERN RAILROAD REV: 1/11/11

ADDRESS: 8TH and OSAGE ID1: COD000706770

DENVER CO 80217 ID2:

DENVER STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

UNIVERSE INFORMATION:

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

**HAZARDOUS WASTE INFORMATION:** 

D000

D001 - Ignitable waste

D002 - Corrosive waste

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 39 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 14 EAST
 REV:
 12/31/05

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-766747

DENVER CO
DENVER

STATUS: RAILROAD

DENVER STATUS: RAILROAD PHONE: 8888777267

SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 7/25/2005 5:11:40 PM **DATE COMPLETE:** 

7/25/2005 5:37:36 PM

CALL TAKER: KWC2316 CALL TYPE: INC

**RESPONSIBLE PARTY:** DAVID ROSS

**PHONE 1:** 8888777267 PRIMARY

PHONE 2: PHONE 3:

**RESPONSIBLE COMPANY:** UNION PACIFIC RAILROAD **ORGANIZATION TYPE:** PRIVATE ENTERPRISE

ADDRESS: 1400 DOUGLAS

OMAHA NE 68179

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: THE CALLER IS REPORTING A RELEASE OF DIESEL FUEL INTO A SECONDARY CONTAINMENT AREA

FROM A LOCOMOTIVE DUE TO UNKNOWN CAUSES.

INCIDENT TYPE: RAILROAD INCIDENT CAUSE: UNKNOWN

INCIDENT DATE: 7/25/2005 12:30:00 PM INCIDENT DATE DESC:

OCCURRED

DISTANCE FROM CITY:
DIRECTION FROM CITY:
LOCATION TOWNSHIP:
DISTANCE UNITS:
LOCATION SECTION:
LOCATION TOWNSHIP:
LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT SPOT NUMBER:
AIRCRAFT HANGER:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: POWER GEN FACILITY: U
GENERATING CAPACITY: TYPE OF FUEL:

NPDES: NPDES COMPLIANCE: U
PIPELINE TYPE: DOT REGULATED: U
PIPELINE ABOVE GROUND: ABOVE EXPOSED UNDERWATER: N
PIPELINE COVERED: U GRADE CROSSING: N

LOCATION SUBDIVISION: COLORADO SPRINGS RAILROAD MILEPOST:

TYPE VEHICLE INVOLVED: CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:** Y

DOT CROSSING NUMBER: BRAKE FAILURE: N

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

	ERNS							
SEARCH ID: 39	DIST/DIR:	0.16 NW	ELEVATION:	5222	<b>MAP ID:</b> 40			
NAME: 14 EAST ADDRESS: 800 SEMINOLE RD DENVER CO DENVER CONTACT: DAVID ROSS SOURCE: NRC			REV: ID1: ID2: STATUS: PHONE:	12/31/05 NRC-766747 RAILROAD 8888777267				
TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID: DESCRIPTION OF TANK:	ABOV U	TANK R CAPACI ACTUAI PLATFO	PORTABLE CONTAINE REGULATED BY: ITY OF TANK: L AMOUNT: DRM RIG NAME: ION AREA ID:	<b>R:</b> U				
OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	N	PIER DO CONTIN CONT R TYPE O STRUCT DATE N SERVIC CR BEG	UMBER: DCK NUMBER: N RELEASE TYPE: ELEASE PERMIT: F STRUCTURE: OPERATIONAL: ORMAL SERVICE: E DISRUPT UNITS: IN DATE: NGE DATE:	U				
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED:	N N	NUMBE RADIUS NUMBE ANY FA ANY DA AIR CO AIR CLO	TINGUISHED: R EVACUATED: OF EVACUATION: R INJURED: TALITIES: MAGES: RRIDOR CLOSED: OSURE TIME: WAY DESC:	U N N N				
WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:		ROAD (	CLOSED: CLOSURE TIME: ARTERY:	N N				
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED:	N LAND CLEA	ADDTL TRIBUT RELEAS RELEAS ST AGE OTHER R AIR TEN	DESC: INTEREST: MEDIUM INFO: CARY OF: SE SECURED: SE RATE: NCY ON SCENE: AGENCY NOTIFIED: MPERATURE: MRECTION:	NONE SECONDAR Y	Y CONTAINMENT			
WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	U	SHEEN DIR OF WAVE (						
DESC OF REMEDIAL ACTION:	MATE	RIAL SPILLED INTO	SECOND CONTAINME	NT				
EMPL FATALITY:		PASS FA	ATALITY:	Continued on n	ext page -			

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 39 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 14 EAST
 REV:
 12/31/05

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-766747

DENVER CO
DENVER
STATUS: RAILROAD
DAVID DOSS

**CONTACT:** DAVID ROSS **PHONE:** 8888777267 **SOURCE:** NRC

COMMUNITY IMPACT: N WIND SPEED UNITS: EMPLOYEE INJURIES: PASSENGER INJURIES:

OCCUPANT FATALITY:

ROAD CLOSURE UNITS:

SHEEN SIZE UNITS:

FED AGENCY NOTIFIED:

SHEEN SIZE LENGTH:

SHEEN SIZE WIDTH:

SHEEN SIZE WIDTH:

SHEEN SIZE WIDTH:

SHEEN SIZE WIDTH UNITS:

OFFSHORE: N DURATION UNIT: RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: THE CALLER HAD NO ADDITIONAL INFORMATION

MATERIAL INFORMATION

CHRIS CODE: ODS CASE NUMBER: 000000-00-0

UN NUMBER: REACHED WATER: NO

NAME OF MATERIAL: OIL: DIESEL AMOUNT OF MATERIAL: 1500 GALLON(S)

AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

**TRAIN NAME/NUMBER:** UP7174 **RAILROAD NAME:** UNION PACIFIC RAILROAD

TRAIN TYPE: LOCOMOTIVE TRACK SPEED: TRAIN SPEED: TRAIN DIRECTION: NUMBER OF LOCOMOTIVES: NUMBER OF CARS:

NUMBER DERAILED: NON COMPLIANCE WITH HAZMAT: N

VESSEL INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 40 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 BURN HAM RAIL YARD
 REV:
 12/31/06

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-803644

DENVER CO
DENVER

STATUS: RAILROAD

CONTACT: PHONE:

SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 7/10/2006 7:28:59 PM **DATE COMPLETE:** 

7/10/2006 7:34:23 PM

CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY:

PHONE 1: PHONE 2: PHONE 3:

RESPONSIBLE COMPANY:

ORGANIZATION TYPE: UNKNOWN

ADDRESS:

XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

**INCIDENT DESCRIPTION:** CENTRAL TIME // CALLER REPORTING A TRANSFER PUMP IN THE FUELING FACILITY RUPTURED DUE UNKNOWN CAUSES. THIS CAUSED MATERIAL TO BE RELEASED TO THE SOIL AND BALLAST.

INCIDENT TYPE: RAILROAD INCIDENT CAUSE: UNKNOWN

INCIDENT DATE: 7/10/2006 5:30:00 PM INCIDENT DATE DESC:

OCCURRED

DISTANCE FROM CITY:DISTANCE UNITS:DIRECTION FROM CITY:LOCATION SECTION:LOCATION TOWNSHIP:LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CAPACITY UNITS:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT SPOT NUMBER:
AIRCRAFT HANGER:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: POWER GEN FACILITY: UNKNOWN

GENERATING CAPACITY: TYPE OF FUEL:

NPDES: NPDES COMPLIANCE: UNKNOWN PIPELINE TYPE: DOT REGULATED: UNKNOWN

PIPELINE ABOVE GROUND:ABOVEEXPOSED UNDERWATER:NOPIPELINE COVERED:UNKNOWNGRADE CROSSING:NO

LOCATION SUBDIVISION:

TYPE VEHICLE INVOLVED:

RAILROAD MILEPOST:

CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:** YES

DOT CROSSING NUMBER: BRAKE FAILURE: NO

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS							
SEARCH ID: 40	DIST/DIR: 0.	.16 NW ELEVATION:	5222 <b>MAI</b>	<b>PID:</b> 40			
NAME: BURN HAM RAIL Y. ADDRESS: 800 SEMINOLE RD DENVER CO DENVER CONTACT: SOURCE: NRC	ARD	REV: ID1: ID2: STATUS: PHONE:	12/31/06 NRC-803644 RAILROAD				
TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID:	ABOVE UNKNOW	TRANSPORTABLE CONTAINE.  TANK REGULATED BY: CAPACITY OF TANK: ACTUAL AMOUNT: PLATFORM RIG NAME: LOCATION AREA ID:	R: UNKNOWN				
DESCRIPTION OF TANK:  OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	NO	OCSP NUMBER: PIER DOCK NUMBER: CONTIN RELEASE TYPE: CONT RELEASE PERMIT: TYPE OF STRUCTURE: STRUCT OPERATIONAL: DATE NORMAL SERVICE: SERVICE DISRUPT UNITS: CR BEGIN DATE: CR CHANGE DATE:	UNKNOWN				
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	NO NO NO	FIRE EXTINGUISHED: NUMBER EVACUATED: RADIUS OF EVACUATION: NUMBER INJURED: ANY FATALITIES: ANY DAMAGES: AIR CORRIDOR CLOSED: AIR CLOSURE TIME: WATERWAY DESC: ROAD CLOSED: ROAD CLOSURE TIME: MAJOR ARTERY:	UNKNOWN  NO NO NO NO				
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	NO SOIL NONE PARTLY O UNKNOW	WIND DIRECTION:	NONE SOIL / BALLAST NO AIR TEMPERATUI	<b>RE:</b> 81			
DESC OF REMEDIAL ACTION:	MATERIA	AL CONTAINED WITHIN BALLAST / CON	TRACTOR EN ROUTE				
EMPL FATALITY:		PASS FATALITY:	Continued on next pag	re -			

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 40 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 BURN HAM RAIL YARD
 REV:
 12/31/06

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-803644

DENVER CO
DENVER

STATUS: RAILROAD

DENVER STATUS:
CONTACT: PHONE:

SOURCE: NRC

COMMUNITY IMPACT: NO WIND SPEED UNITS:
EMPLOYEE INJURIES: PASSENGER INJURIES:
OCCUPANT FATALITY: CURRENT SPEED UNITS:
ROAD CLOSURE UNITS: TRACK CLOSURE UNITS:

SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: DEM

FED AGENCY NOTIFIED:

SHEEN SIZE LENGTH:

SHEEN SIZE WIDTH:

OFFSHORE:

N

NEAREST RIVER MILE MARK:
SHEEN SIZE LENGTH UNITS:
SHEEN SIZE WIDTH UNITS:
DURATION UNIT:

OFFSHORE: N DURATION UNIT: RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: NONE FURTHER

MATERIAL INFORMATION

CHRIS CODE: ODS CASE NUMBER: 000000-00-0

UN NUMBER: REACHED WATER: NO

NAME OF MATERIAL: OIL: DIESEL AMOUNT OF MATERIAL: 500 GALLON(S)

AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

**SEARCH ID:** 63 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: UNION PACIFIC RAILROAD REV: 07/06/09

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 2009-0038

 DENVER CO 80204
 ID2:

DENVER STATUS: CONTACT: PHONE:

CONTACT: PHO
SOURCE: CDPHE

PRP INFORMATION

**PRP NAME:** UNION PACIFIC RAILROAD

PRP CONTACT: KAREN MARTINEZ
PRP ADDRESS: 1400 DOUGLAS ST
OMAHA CO 68179

SPILL INFORMATION

EVENT DATE: 1/29/2009 MATERIAL TYPE: OIL

MATERIAL1: OIL/WATER MIXTURE

**QUANTITY1:** 50 GALLONS

WATER QUANTITY1: 0

MATERIAL2: **OUANTITY2**:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

SOURCE: RAILWAY
SOURCE TYPE: RAILROAD/TRAIN

MEDIUM: LAND

WATERWAY:

CAUSE: UNKNOWN

**CAUSE INFO:** DUE TO UNKNOWN CAUSES AN OIL/WATER MIXTURE WAS DISCOVERED SPILLED AT

A UP RAIL YARD FACILITY IN THE CITY and COUNTY OF DENVER

ACTION: BELFOR ENVIRONMENTAL IS ON SCENE PERFORMING CLEANUP OF ALL IMPACTED AREAS.

**RESPONSE COMMENTS:** NO WATERWAYS WERE IMPACTED.

**COMMENTS:** 

ADDITIONAL COMMENTS:

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

SEARCH ID: 47 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 40 **MAP ID:** 

NAME: ON THE LOADING DOCK REV: 12/31/03 ADDRESS: 800 SEMINOLE RD NRC-704760 ID1:

DENVER CO 80204 ID2:

STATUS: DENVER FIXED

CONTACT: GILBER (EXT 3342) SANDOVAL PHONE: 3035756910

SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE COMPLETE: DATE RECEIVED: 11/7/2003 7:45:34 PM 11/7/2003 7:52:06 PM

**CALL TAKER:** VSW9534 **CALL TYPE:** INC

RESPONSIBLE PARTY: GILBER (EXT 3342) SANDOVAL

PHONE 1: 3035756910 PRIMARY

PHONE 2: PHONE 3:

RESPONSIBLE COMPANY: GENERAL ELECTRIC **ORGANIZATION TYPE:** PRIVATE ENTERPRISE

ADDRESS: 800 SEMINOLE ROAD

DENVER CO 80204

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER STATED THAT THEY WERE LOADING A BATTERY ONTO A PALLET. DURING THIS OPERATION THE BATTERY FELL ON THE FLOOR, RELEASING BATTERY ACID ONTO THE GROUND.

INCIDENT TYPE: FIXED **INCIDENT CAUSE:** OPERATOR ERROR INCIDENT DATE DESC:

INCIDENT DATE: 11/7/2003 5:40:00 PM

OCCURRED DISTANCE FROM CITY: **DISTANCE UNITS:** DIRECTION FROM CITY: LOCATION SECTION: LOCATION TOWNSHIP: LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID: AIRCRAFT FUEL CAPACITY: **AIRCRAFT FUEL CAPACITY UNITS:** AIRCRAFT FUEL ON BOARD: AIRCRAFT FUEL ON BOARD UNITS: AIRCRAFT SPOT NUMBER: AIRCRAFT HANGER: AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: **BUILDING ID:** 

TYPE OF FIXED OBJECT: OTHER POWER GEN FACILITY: Ν

GENERATING CAPACITY: TYPE OF FUEL:

NPDES: NPDES COMPLIANCE: U PIPELINE TYPE: **DOT REGULATED:** IJ PIPELINE ABOVE GROUND: **ABOVE** EXPOSED UNDERWATER: Ν PIPELINE COVERED: U **GRADE CROSSING:** 

LOCATION SUBDIVISION: RAILROAD MILEPOST: TYPE VEHICLE INVOLVED: **CROSSING DEVICE TYPE:** 

**DEVICE OPERATIONAL:** Y

DOT CROSSING NUMBER: **BRAKE FAILURE:** Ν

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS						
SEARCH ID: 47	DIST/DIR:	0.16 NW	ELEVATION:	5222	MAP ID:	40
NAME: ON THE LOADING DO ADDRESS: 800 SEMINOLE RD DENVER CO 80204 DENVER CONTACT: GILBER (EXT 3342) S SOURCE: NRC			REV: ID1: ID2: STATUS: PHONE:	12/31/03 NRC-704760 FIXED 3035756910		
TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID: DESCRIPTION OF TANK:	ABOV. U	TANK CAPA ACTU PLAT	SPORTABLE CONTAINE REGULATED BY: CITY OF TANK: JAL AMOUNT: FORM RIG NAME: ATION AREA ID:	<b>R:</b> U		
OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	N	PIER CONT CONT TYPE STRU DATE SERV CR BI	NUMBER: DOCK NUMBER: IN RELEASE TYPE: RELEASE PERMIT: OF STRUCTURE: CT OPERATIONAL: NORMAL SERVICE: ICE DISRUPT UNITS: EGIN DATE: HANGE DATE:	U		
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	N N N	NUMI RADI NUMI ANY I AIR C AIR C WATI ROAI ROAI	EXTINGUISHED: BER EVACUATED: US OF EVACUATION: BER INJURED: FATALITIES: DAMAGES: CORRIDOR CLOSED: CLOSURE TIME: ERWAY DESC: D CLOSED: D CLOSURE TIME: OR ARTERY:	U N N N		
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	N LAND CLEAR U	MEDI ADDT TRIBI RELE ST AC OTHE AIR T WIND SHEE DIR C WAVI	CK DESC: (A INTEREST: (L MEDIUM INFO: UTARY OF: (ASE SECURED: (ASE RATE: (GENCY ON SCENE: (ER AGENCY NOTIFIED: (EMPERATURE: () DIRECTION: (N SIZE: () OF SHEEN TRAVEL: () ECONDITION: (RENT DIRECTION:	NONE SOIL N		
DESC OF REMEDIAL ACTION: EMPL FATALITY:	NONE		FATALITY:			
			- (	Continued on n	ext page -	

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 47 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 ON THE LOADING DOCK
 REV:
 12/31/03

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-704760

DENVER CO 80204 ID2:

DENVER STATUS: FIXED CONTACT: GILBER (EXT 3342) SANDOVAL PHONE: 3035756910

SOURCE: NRC

**COMMUNITY IMPACT:** Ν WIND SPEED UNITS: **EMPLOYEE INJURIES: PASSENGER INJURIES:** OCCUPANT FATALITY: **CURRENT SPEED UNITS: ROAD CLOSURE UNITS:** TRACK CLOSURE UNITS: SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: FED AGENCY NOTIFIED: **NEAREST RIVER MILE MARK:** SHEEN SIZE LENGTH: SHEEN SIZE LENGTH UNITS: SHEEN SIZE WIDTH: SHEEN SIZE WIDTH UNITS:

OFFSHORE: N DURATION UNIT: RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: CALLER REQUESTS ADVICE ON HOW TO CLEAN THIS SPILL.

MATERIAL INFORMATION

CHRIS CODE: NCC CASE NUMBER: 000000-00-0

UN NUMBER: REACHED WATER: NO

NAME OF MATERIAL: BATTERY ACID
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT

AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

**Target Property:** 6TH AVENUE BRIDGE **JOB:** 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 79 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 BURNHAM SHOPS
 REV:
 04/01/11

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 974

 800 SEMINOLE RD
 ID1: 974

 DENVER CO 80204
 ID2: STATUS:

DENVER STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 5458

OWNER NAME:

OWNER ADDRESS: 280 South 400 West

SALT LAKE CITY UT 84101

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 20000

 TANK ID:
 2830

 TANK TAG:
 974-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 2831

 TANK TAG:
 974-2

 TANK TYPE:
 AST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 1000

 TANK ID:
 2832

 TANK TAG:
 974-3

TANK TYPE:ASTTANK CONTENTS:GasolineTANK CAPACITY:1000TANK ID:2833TANK TAG:974-4

TANK TYPE: AST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 5000

 TANK ID:
 2834

 TANK TAG:
 974-5

TANK TYPE: AST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 10000

 TANK ID:
 2835

 TANK TAG:
 974-6

TANK TYPE: AST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

UST						
SEARCH ID: 79	DIST/DIR: 0.16 NW	ELEVATION:	5222	MAP ID:	40	
NAME: BURNHAM SHOPS ADDRESS: 800 SEMINOLE RD DENVER CO 80204 DENVER CONTACT: SOURCE: COSTIS		REV: ID1: ID2: STATUS: PHONE:	04/01/11 974			
TANK CAPACITY: TANK ID: TANK TAG:	10000 2836 974-7					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 7 - Lube Oil 10000 2837 974-8					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 7 - Lube Oil 10000 2838 974-9					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 7 - Lube Oil 10000 2839 974-10					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 7 - Lube Oil 10000 2840 974-11					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 7 - Lube Oil 10000 2841 974-12					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 7 - Lube Oil 10000 2842 974-13					
TANK TYPE: TANK CONTENTS: TANK CAPACITY: TANK ID: TANK TAG:	AST 4 - Diesel 35000 2843 974-14					
		- (	Continued on	next page -		

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 79 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: BURNHAM SHOPS REV: 04/01/11

 ADDRESS:
 800 SEMINOLE RD DENVER CO 80204
 ID1: 974

DENVER STATUS: PHONE:

CONTACT: SOURCE: COSTIS

TANK TYPE: AST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

 TANK CAPACITY:
 16800

 TANK ID:
 35503

 TANK TAG:
 974-15

 TANK TYPE:
 AST

 TANK CONTENTS:
 Diesel 2

 TANK CAPACITY:
 20000

 TANK ID:
 41469

 TANK TAG:
 974-17

 TANK TYPE:
 AST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 11800

 TANK ID:
 41629

 TANK TAG:
 974-18

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=974

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 42 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME:IN THE RAILYARD OF THE BURHAM SHOPREV:12/31/06ADDRESS:800 SEMINOLE RDID1:NRC-800346

DENVER CO 80204 ID2: NRC-80034

DENVER STATUS: STORAGE TANK

CONTACT: PHONE: SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 6/12/2006 10:16:51 AM **DATE COMPLETE:** 

6/12/2006 10:21:31 AM

CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY:

PHONE 1: PHONE 2: PHONE 3:

RESPONSIBLE COMPANY:

ORGANIZATION TYPE: UNKNOWN

ADDRESS:

XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

**INCIDENT DESCRIPTION:** CALLER STATED THAT DIESEL FUEL WASTE WAS RELEASED FROM A DIESEL FUEL HOLDING TANK ONTO THE GROUND DUE TO UNKNOWN CAUSES.

INCIDENT TYPE: STORAGE TANK INCIDENT CAUSE: UNKNOWN

INCIDENT DATE: 6/12/2006 8:49:00 AM INCIDENT DATE DESC:

DISCOVERED

DISTANCE FROM CITY:
DISTANCE FROM CITY:
DIRECTION FROM CITY:
LOCATION TOWNSHIP:
LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT SPOT NUMBER:
AIRCRAFT HANGER:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: POWER GEN FACILITY: UNKNOWN

GENERATING CAPACITY:

TYPE OF FUEL:

NPDES: NPDES COMPLIANCE: UNKNOWN PIPELINE TYPE: DOT REGULATED: UNKNOWN

PIPELINE ABOVE GROUND:ABOVEEXPOSED UNDERWATER:NOPIPELINE COVERED:UNKNOWNGRADE CROSSING:NO

LOCATION SUBDIVISION:

TYPE VEHICLE INVOLVED:

RAILROAD MILEPOST:

CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:** YES

DOT CROSSING NUMBER: BRAKE FAILURE: NO

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS						
SEARCH ID: 42	DIST/DIR:	0.16 NW	ELEVATION:	5222	MAP ID:	40
NAME: IN THE RAILYARD ADDRESS: 800 SEMINOLE RD DENVER CO 80204 DENVER CONTACT:	OF THE BURHAM	SHOP	REV: ID1: ID2: STATUS: PHONE:	12/31/06 NRC-800346 STORAGE TAN	NK	
SOURCE: NRC  TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID:	ABOVE UNKNO	OWN TO COMPANY A PROPERTY OF THE PROPERTY OF T	TRANSPORTABLE CONTAINER TANK REGULATED BY: CAPACITY OF TANK: ACTUAL AMOUNT: PLATFORM RIG NAME: LOCATION AREA ID:	t: UNKNOWN		
DESCRIPTION OF TANK:	STORA	GE TANK				
OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	NO	P C C T S D S	OCSP NUMBER: PIER DOCK NUMBER: CONTIN RELEASE TYPE: CONT RELEASE PERMIT: FYPE OF STRUCTURE: CTRUCT OPERATIONAL: DATE NORMAL SERVICE: SERVICE DISRUPT UNITS: CR BEGIN DATE: CR CHANGE DATE:	UNKNOWN		
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED:	NO NO	N	FIRE EXTINGUISHED: NUMBER EVACUATED: RADIUS OF EVACUATION:	UNKNOWN		
ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED:	NO NO	A A A A	NUMBER INJURED: ANY FATALITIES: ANY DAMAGES: AIR CORRIDOR CLOSED: AIR CLOSURE TIME: VATERWAY DESC:	NO NO NO		
WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	NO	R R	ROAD CLOSED: ROAD CLOSURE TIME: MAJOR ARTERY:	NO NO		
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE:	NO LAND	M A T R	FRACK DESC: MEDIA INTEREST: ADDTL MEDIUM INFO: FRIBUTARY OF: RELEASE SECURED: RELEASE RATE:	NONE GROUND YES		
TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED:	NO REF	PORT C	T AGENCY ON SCENE: DTHER AGENCY NOTIFIED: AIR TEMPERATURE: WIND DIRECTION:	64		
WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	UNKNO	D V	SHEEN SIZE: DIR OF SHEEN TRAVEL: VAVE CONDITION: CURRENT DIRECTION:			
DESC OF REMEDIAL ACTION:	CUSTO	M ENVIRON	NMENTAL WERE CONTRACTED	FOR CLEAN UP		
EMPL FATALITY:		P	PASS FATALITY:	ontinued on ne	xt page -	

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

SEARCH ID: 42 **ELEVATION:** 40 **DIST/DIR:** 0.16 NW 5222 **MAP ID:** 

NAME: IN THE RAILYARD OF THE BURHAM SHOP REV: 12/31/06 ADDRESS: 800 SEMINOLE RD NRC-800346 ID1:

DENVER CO 80204 ID2:

**DENVER** STATUS: STORAGE TANK

**CONTACT:** PHONE:

SOURCE: NRC

**COMMUNITY IMPACT:** NO WIND SPEED UNITS: **EMPLOYEE INJURIES: PASSENGER INJURIES:** OCCUPANT FATALITY: **CURRENT SPEED UNITS: ROAD CLOSURE UNITS:** TRACK CLOSURE UNITS:

SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: PUBLIC HEALTH, DEM

FED AGENCY NOTIFIED: **NEAREST RIVER MILE MARK:** SHEEN SIZE LENGTH: SHEEN SIZE LENGTH UNITS: SHEEN SIZE WIDTH: SHEEN SIZE WIDTH UNITS:

**OFFSHORE:** N **DURATION UNIT:** 

RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: NONE

**MATERIAL INFORMATION** 

**CHRIS CODE:** OTD **CASE NUMBER:** 000000-00-0

UN NUMBER: REACHED WATER: NO

NAME OF MATERIAL: OIL, FUEL: NO. 2-D AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT

AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

**VESSEL INFORMATION** 

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 54 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 REV:
 12/31/07

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-834088

DENVER CO

ID1: NRC-834080

ID2:

DENVER STATUS: FIXED

CONTACT: PHONE: SOURCE: NRC

**SITE INFORMATION** 

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 5/2/2007 8:08:21 AM **DATE COMPLETE:** 5/2/2007

8:14:42 AM

CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY:

PHONE 1: PHONE 2: PHONE 3:

RESPONSIBLE COMPANY:

ORGANIZATION TYPE: UNKNOWN

ADDRESS:

XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER IS REPORTING A DISCHARGE OF AN UNKNOWN OILY MIXTURE FROM A SKIM BASIN DUE TO

UNKNOWN CAUSES.

INCIDENT TYPE: FIXED INCIDENT CAUSE: UNKNOWN

INCIDENT DATE: 5/2/2007 6:38:00 AM INCIDENT DATE DESC:

OCCURRED

DISTANCE FROM CITY:DISTANCE UNITS:DIRECTION FROM CITY:LOCATION SECTION:LOCATION TOWNSHIP:LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CAPACITY UNITS:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT SPOT NUMBER:
AIRCRAFT HANGER:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: WATER TREATMENT FACILITY POWER GEN FACILITY: NO

GENERATING CAPACITY: TYPE OF FUEL:

NPDES:NPDES COMPLIANCE:UNKNOWNPIPELINE TYPE:DOT REGULATED:UNKNOWNPIPELINE ABOVE GROUND:ABOVEEXPOSED UNDERWATER:NOPIPELINE COVERED:UNKNOWNGRADE CROSSING:UNKNOWN

LOCATION SUBDIVISION:

TYPE VEHICLE INVOLVED:

RAILROAD MILEPOST:

CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:** YES

DOT CROSSING NUMBER: BRAKE FAILURE: UNKNOWN

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS						
SEARCH ID: 54	DIST/DIR: 0.16 NV	W ELEVATION:	5222 <b>MAP ID:</b>	40		
NAME: ADDRESS: 800 SEMINOLE RD DENVER CO DENVER CONTACT: SOURCE: NRC		REV: ID1: ID2: STATUS: PHONE:	12/31/07 NRC-834088 FIXED			
TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID:	ABOVE UNKNOWN	TRANSPORTABLE CONTAINE TANK REGULATED BY: CAPACITY OF TANK: ACTUAL AMOUNT: PLATFORM RIG NAME: LOCATION AREA ID:	R: UNKNOWN			
DESCRIPTION OF TANK:  OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	UNKNOWN UNKNOWN	OCSP NUMBER: PIER DOCK NUMBER: CONTIN RELEASE TYPE: CONT RELEASE PERMIT: TYPE OF STRUCTURE: STRUCT OPERATIONAL: DATE NORMAL SERVICE: SERVICE DISRUPT UNITS: CR BEGIN DATE: CR CHANGE DATE:	UNKNOWN			
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	NO NO NO	FIRE EXTINGUISHED: NUMBER EVACUATED: RADIUS OF EVACUATION: NUMBER INJURED: ANY FATALITIES: ANY DAMAGES: AIR CORRIDOR CLOSED: AIR CLOSURE TIME: WATERWAY DESC: ROAD CLOSED: ROAD CLOSURE TIME: MAJOR ARTERY:	UNKNOWN  NO NO NO NO			
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	NO WATER STORM SEWER  NO REPORT PARTLY CLOUD 4 UNKNOWN	TRACK DESC: MEDIA INTEREST: ADDTL MEDIUM INFO: TRIBUTARY OF: RELEASE SECURED: RELEASE RATE: ST AGENCY ON SCENE: OTHER AGENCY NOTIFIED: DY WIND DIRECTION: SHEEN SIZE: DIR OF SHEEN TRAVEL: WAVE CONDITION: CURRENT DIRECTION:	NONE / STORM SEWER / GUTTEI UNKNOWN YES  AIR TEMPERATURE: W	48		
DESC OF REMEDIAL ACTION:	INVESTIGATION					
EMPL FATALITY:		PASS FATALITY:	Continued on next page -			

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**ELEVATION:** 40 **SEARCH ID:** 54 **DIST/DIR:** 0.16 NW 5222 **MAP ID:** 

NAME: REV: 12/31/07 ADDRESS: 800 SEMINOLE RD NRC-834088 ID1:

DENVER CO ID2:

**DENVER** STATUS: **FIXED** 

**CONTACT:** PHONE:

SOURCE: NRC

**COMMUNITY IMPACT:** WIND SPEED UNITS: MPH

**EMPLOYEE INJURIES:** PASSENGER INJURIES: OCCUPANT FATALITY: **CURRENT SPEED UNITS: ROAD CLOSURE UNITS:** TRACK CLOSURE UNITS:

SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: CO DEM, CO PUC, CO DPHE

NONE FED AGENCY NOTIFIED: **NEAREST RIVER MILE MARK:** SHEEN SIZE LENGTH: SHEEN SIZE LENGTH UNITS: SHEEN SIZE WIDTH: SHEEN SIZE WIDTH UNITS:

**OFFSHORE:** N **DURATION UNIT:** RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

**CHRIS CODE:** OUN **CASE NUMBER:** 000000-00-0

UN NUMBER: REACHED WATER: YES

NAME OF MATERIAL: UNKNOWN OILY MIXTURE 0 UNKNOWN AMOUNT AMOUNT OF MATERIAL: AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

**VESSEL INFORMATION** 

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**SPILLS** SEARCH ID: 65 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 MAP ID: 40 NAME: **UPRR** REV: 07/06/09 ADDRESS: 800 SEMINOLE RD 2009-0020 ID1: DENVER CO ID2: STATUS: **DENVER CONTACT:** PHONE: **SOURCE: CDPHE** PRP INFORMATION PRP NAME: **UPRR** PRP CONTACT: SHANDA PRP ADDRESS: 1400 DOUGLAS ST **OMAHA NE 68179** SPILL INFORMATION **EVENT DATE:** 1/15/2009 **MATERIAL TYPE:** OIL MATERIAL1: DIESEL FUEL **QUANTITY1:** 50 GALLONS WATER QUANTITY1: **MATERIAL2: QUANTITY2:** WATER QUANTITY2: **MATERIAL3: QUANTITY3:** WATER QUANTITY3: **SOURCE:** RAILWAY **SOURCE TYPE:** RAILROAD/TRAIN MEDIUM: LAND WATERWAY: CAUSE: FAILURE EQUIPMENT **CAUSE INFO:** mechanical problems resulted in a spill of 50 gallons of diesel fuel tfrom a locomotive o the track, ballast, and ground. No involvement of waterways. ACTION: Called Belfor for clean up, hopefully will start today. **RESPONSE COMMENTS: COMMENTS:** ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

SEARCH ID: 156 DIST/DIR: 0.16 NW ELEVATION: MAP ID: 40

NAME: UNION PACIFIC RAILROAD REV: 03/31/11

 ADDRESS:
 800 SEMINOLE RD, A LOCOMOTIVE SHOP DENVER CO 80204
 ID1: 2011-0056

DENVER STATUS: CONTACT: PHONE:

CONTACT: PHON SOURCE: CDPHE

PRP INFORMATION

**PRP NAME:** UNION PACIFIC RAILROAD

PRP CONTACT: SHAWN PRICE
PRP ADDRESS: 1400 DOUGLAS ST
OMAHA NE 68179

SPILL INFORMATION

EVENT DATE: 2/4/2011
MATERIAL TYPE: OIL

MATERIAL1: NEW OIL QUANTITY1: 1000 GALLONS

WATER QUANTITY1:

MATERIAL2: **OUANTITY2**:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

**SOURCE:** ABOVE GROUND STORAGE TANK

SOURCE TYPE: Locomotive Shop and Yard

MEDIUM: LAND

WATERWAY:

CAUSE: NATURAL PHENOMENON

**CAUSE INFO:**Valve on the tank froze and failed, resulting in release of 500-1000 gallons of new oil. No waterways were impacted. The spill is reported to be contained. // 3/15/11 we had a report that there was impact to a concrete channel near the Sears

ACTION: Hazmat manager has been notified.

**RESPONSE COMMENTS:** 

**COMMENTS:** 

ADDITIONAL COMMENTS:

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

SEARCH ID: 157 **DIST/DIR:** 0.16 NW **ELEVATION:** MAP ID: 40

NAME: UNION PACIFIC RAILROAD REV: 03/31/11 ADDRESS: 800 SEMINOLE ROAD

ID1: 2011-0058 DENVER CO ID2: DENVER STATUS:

**CONTACT:** PHONE:

**SOURCE: CDPHE** 

PRP INFORMATION

PRP NAME: UNION PACIFIC RAILROAD PRP CONTACT: PAMELA LUTTRELL PRP ADDRESS: 1400 DOUGLAS ST. **OMAHA NE 68179** 

SPILL INFORMATION

**EVENT DATE:** 2/6/2011

MATERIAL TYPE: SANITARY SEWER OVERFLOW

**MATERIAL1:** WASTEWATER **QUANTITY1:** 6000 GALLONS WATER QUANTITY1: 6000 GALLONS

UNKNOWN OIL **MATERIAL2: OUANTITY2:** 300 GALLONS WATER QUANTITY2: 300 G

**MATERIAL3: QUANTITY3:** 

WATER QUANTITY3:

SOURCE: SEWER SYSTEM

**SOURCE TYPE:** WASTEWATER TREATMENT PLANT

MEDIUM: WATER

WATERWAY: STORM SEWER-->NEARBY DITCH

CAUSE: FAILURE EQUIPMENT

DUE TO UNKNOWN CAUSES, A WASTEWATTER TREAMENT PLANT OVERFLOWED **CAUSE INFO:** 

AND AN OIL/WATER MIXTURE WAS RELEASED.

ACTION: BELFOR ENVIRONMENTAL RESPONDED AND CONTAINED ALL THE RELEASED MATERIAL IN A DITCH AREA NEAR 6TH and OSAGE ST. VAC TRUCK BEING USED TO RECOVER RELEASED MATEIRAL. THE CAUSE OF THE OVERFLOW AT THE TREATMENT PLANT IS STILL UNDER INVESTIGATION. HOWEVER ALL FLOW

S. PLATTE RIVER HAS NOT BEEN IMPACTED ACCORDING TO THE RESPONSIBLE RESPONSE COMMENTS: PARTY. INITIAL QUANTITY OF RELEASE WAS REPORTED TO BE 30-40 GALLONS AND THOSE QUANTITIES WERE REVISED LATE YESTERDAY AFTERNOON BY THE RP. THE RP HAS BEEN VERY VAGUE WITH INFORMATION CONCER

**COMMENTS:** DENVER ENV HLTH-GARY LASSWELL, BEN SILLER

ADDITIONAL COMMENTS:

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**SPILLS** SEARCH ID: 62 **ELEVATION: DIST/DIR:** 0.16 NW 5222 MAP ID: 40 NAME: UNION PACIFIC RAILROAD REV: 07/06/09 ADDRESS: 800 SEMINOLE RD 2008-0675 ID1: DENVER CO ID2: STATUS: **DENVER CONTACT:** PHONE: **SOURCE: CDPHE** PRP INFORMATION PRP NAME: UNION PACIFIC RAILROAD PRP CONTACT: LANE SEKAVEC PRP ADDRESS: OMAHA NE SPILL INFORMATION **EVENT DATE:** 11/15/2008 **MATERIAL TYPE: HAZARDOUS** MATERIAL1: BATTERY ACID **QUANTITY1:** 0 UNKNOWN WATER QUANTITY1: **MATERIAL2: QUANTITY2:** WATER QUANTITY2: **MATERIAL3: QUANTITY3:** WATER QUANTITY3: **SOURCE:** OTHER **SOURCE TYPE:** battery for locomotive MEDIUM: LAND WATERWAY: CAUSE: ERROR OPERATOR CAUSE INFO: A locomotive battery was dropped and broke, spilling battery acid onto the ground . No waterways were involved. ACTION: Union Pacific will have this cleaned up, either by their employees or a contractor. **RESPONSE COMMENTS: COMMENTS:** ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

REV:

**SEARCH ID:** 61 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: UNION PACIFIC RAILROAD

**ADDRESS:** 800 SEMINOLE RD **ID1:** 2006-132

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CONTACT: PHONE:

SOURCE: CDPHE

PRP INFORMATION

**PRP NAME:** UNION PACIFIC RAILROAD

PRP CONTACT: JAY HAMERNICK

PRP ADDRESS:

CO

SPILL INFORMATION

EVENT DATE: 2/13/2006 MATERIAL TYPE: OIL

MATERIAL1: OIL

QUANTITY1: 25 GALLONS

WATER QUANTITY1:

MATERIAL2: **OUANTITY2**:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

SOURCE: RAILWAY

SOURCE TYPE:

MEDIUM: LAND

WATERWAY:

CAUSE: FAILURE EQUIPMENT

**CAUSE INFO:** INITIAL CALL DID NOT LEAVE SPECIFICS OF INCIDENT, BRITTANY AT UPRR PROVIDED INFO ON MESSAGE AT 2:10 PM,2/14 AFTER SECOND CONTACT TO UPRR CALL CENTER THAT DAY. OIL LEAKED FROM LOCOMOTIVE IN THE YARD. NO IMPACTS TO WATER.

ACTION: ENVIRONMENTAL FIELD OPERATIONS (MARK ROSS) RESPONDED TO SPILL and CLEANED IT UP, LOCOMOTIVE WAS MOVED TO SHOP and OIL DRAINED.

**RESPONSE COMMENTS:** 

COMMENTS: CONTACT FOR UPRR ENV. FIELD OPS. MARK ROSS 303-964-4457

ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

REV:

**SEARCH ID:** 56 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: PACIFIC ROAD

**ADDRESS:** 800 SEMINOLE RD **ID1:** 2004-533

DENVER CO 80223 ID2:
DENVER STATUS:

CONTACT: PHONE:

SOURCE: CDPHE

PRP INFORMATION

PRP NAME:
PACIFIC ROAD
PRP CONTACT:
MATT FREDERICK
PRP ADDRESS:
800 SEMINOLE ROAD
DENVER CO 80223-

SPILL INFORMATION

EVENT DATE: 8/18/2004
MATERIAL TYPE: OIL

MATERIAL1: OIL QUANTITY1: 2000

WATER QUANTITY1:

MATERIAL2: **OUANTITY2**:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

SOURCE: UNKNOWN

SOURCE TYPE: OIL

MEDIUM: WATER AND LAND

WATERWAY: SEWER DRAIN AND THE PACIFIC RAILROAD LAND CAUSE: UNKNOWN

CAUSE INFO: THE RAILROAD CONTACT LISTED ABOVE DID NOT HAVE CAUSE INFORMATION ON

THE SPILL. THEY ARE INVESTIGATING WHETHER IT CAME FROM A RAILCAR, OR AN EXTERNAL SOURCE.

ACTION: CSI COMPANY HAS RESPONDED AND PERFORMED CLEAN-UP.

**RESPONSE COMMENTS:** 

COMMENTS: CSI IS THE ONLY AGENCY WORKING ON THE CLEAN-UP.

ADDITIONAL COMMENTS:

**Target Property:** 6TH AVENUE BRIDGE **JOB:** 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 51 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 UNION PACIFIC RAILROAD
 REV:
 12/31/05

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-762627

DENVER CO

ID1: NRC-7626.

DENVER CO

ID2:

DENVER STATUS: RAILROAD NON-RELEASE

CONTACT: UNKNOWN PHONE:

SOURCE: NRC
SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 6/18/2005 8:31:07 PM **DATE COMPLETE:** 

6/18/2005 8:34:05 PM
CALL TAKER: REC7955 CALL TYPE: INC

RESPONSIBLE PARTY: UNKNOWN

PHONE 1: PHONE 2: PHONE 3:

RESPONSIBLE COMPANY:

ORGANIZATION TYPE: UNKNOWN

ADDRESS:

XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: THE CALLER IS REPORTING THE DISCOVERY OF A DEAD TRESPASSER ON RAIL PROPERTY. NO TRAINS

WERE INVOLVED.

INCIDENT TYPE: RAILROAD NON-RELEASE INCIDENT CAUSE: UNKNOWN

INCIDENT DATE: 6/18/2005 7:10:00 PM INCIDENT DATE DESC:

DISCOVERED

DISTANCE FROM CITY:
DIRECTION FROM CITY:
LOCATION TOWNSHIP:
DISTANCE UNITS:
LOCATION SECTION:
LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT HANGER:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: POWER GEN FACILITY: U
GENERATING CAPACITY: TYPE OF FUEL:

NPDES:
NPDES COMPLIANCE:
PIPELINE TYPE:
DOT REGULATED:

PIPELINE TYPE:

PIPELINE ABOVE GROUND:

PIPELINE COVERED:

U

GRADE CROSSING:

N

LOCATION SUBDIVISION:

DOT REGULATED:

EXPOSED UNDERWATER:

N

RAILROAD MILEPOST:

TYPE VEHICLE INVOLVED: CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:** Y

DOT CROSSING NUMBER: BRAKE FAILURE: N

- Continued on next page -

U

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS							
SEARCH ID: 51	DIST/DIR:	0.16 NW	ELEVATION:	5222	MAP ID:	40	
NAME: UNION PACIFIC RAI ADDRESS: 800 SEMINOLE RD DENVER CO DENVER CONTACT: UNKNOWN SOURCE: NRC	ILROAD		REV: ID1: ID2: STATUS: PHONE:	12/31/05 NRC-762627 RAILROAD	7 NON-RELEASE		
TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID: DESCRIPTION OF TANK:	ABOV U	TANK CAPA ACTU PLAT	SPORTABLE CONTAINE REGULATED BY: CITY OF TANK: AL AMOUNT: FORM RIG NAME: TION AREA ID:	CR: U			
OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	N	PIER I CONT CONT TYPE STRU DATE SERV CR BE	NUMBER: DOCK NUMBER: IN RELEASE TYPE: RELEASE PERMIT: OF STRUCTURE: CT OPERATIONAL: NORMAL SERVICE: ICE DISRUPT UNITS: EGIN DATE: HANGE DATE:	U			
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	N N 1	NUME RADIO NUME ANY I ANY I AIR C AIR C WATE ROAD ROAD	EXTINGUISHED: BER EVACUATED: US OF EVACUATION: BER INJURED: FATALITIES: DAMAGES: ORRIDOR CLOSED: LOSURE TIME: ERWAY DESC: O CLOSED: O CLOSURE TIME: OR ARTERY:	U Y N N N			
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	N RAIL I UNKN U	MEDI REPORT (N/A) TRIBI RELE RELE ST AG OTHE OWN AIR T WIND SHEE DIR O WAVI	K DESC: A INTEREST:  UTARY OF: ASE SECURED: ASE RATE: ENCY ON SCENE: R AGENCY NOTIFIED: EMPERATURE: DIRECTION: N SIZE: F SHEEN TRAVEL: E CONDITION: ENT DIRECTION:	NONE <b>ADDTL</b> M	IEDIUM INFO:		
DESC OF REMEDIAL ACTION:	THE P	OLICE DEPT. HAS					
EMPL FATALITY:		PASS	FATALITY: - (	Continued on	next page -		

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

SEARCH ID: 51 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: UNION PACIFIC RAILROAD REV: 12/31/05 ADDRESS: 800 SEMINOLE RD NRC-762627 ID1:

DENVER CO ID2:

**DENVER** STATUS: RAILROAD NON-RELEASE

CONTACT: UNKNOWN PHONE:

SOURCE: NRC

**COMMUNITY IMPACT:** WIND SPEED UNITS: Ν **EMPLOYEE INJURIES: PASSENGER INJURIES:** OCCUPANT FATALITY: **CURRENT SPEED UNITS: ROAD CLOSURE UNITS:** TRACK CLOSURE UNITS: SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: FED AGENCY NOTIFIED: **NEAREST RIVER MILE MARK:** SHEEN SIZE LENGTH: SHEEN SIZE LENGTH UNITS: SHEEN SIZE WIDTH: SHEEN SIZE WIDTH UNITS: **OFFSHORE:** Ν **DURATION UNIT:** 

RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: NONE

**MATERIAL INFORMATION** 

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

TRAIN NAME/NUMBER: N/A **RAILROAD NAME:** UNION PACIFIC RAILROAD

TRAIN TYPE: OTHER TRACK SPEED: TRAIN SPEED: TRAIN DIRECTION: NUMBER OF LOCOMOTIVES: NUMBER OF CARS:

NUMBER DERAILED: NON COMPLIANCE WITH HAZMAT: N

VESSEL INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 52 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 REV:
 12/31/06

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-804990

DENVER CO
DENVER

STATUS: RAILROAD

CONTACT: PHONE:

SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 7/21/2006 11:51:56 AM **DATE COMPLETE:** 

7/21/2006 11:58:48 AM

CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY:

PHONE 1: PHONE 2: PHONE 3:

RESPONSIBLE COMPANY:

ORGANIZATION TYPE: UNKNOWN

ADDRESS:

XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER IS REPORTING A RELEASE OF DIESEL FUEL FROM A LOCOMOTIVE DUE TO AN OPEN VALVE

ON THE LOCOMOTIVE.

INCIDENT TYPE: RAILROAD INCIDENT CAUSE: UNKNOWN

INCIDENT DATE: 7/21/2006 10:30:00 AM INCIDENT DATE DESC:

DISCOVERED

DISTANCE FROM CITY:
DISTANCE FROM CITY:
DIRECTION FROM CITY:
LOCATION TOWNSHIP:
LOCATION RANGE:

AIRCRAFT TYPE: AIRCRAFT MODEL:

AIRCRAFT ID:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT SPOT NUMBER:
AIRCRAFT HANGER:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: POWER GEN FACILITY: UNKNOWN

GENERATING CAPACITY:

TYPE OF FUEL:

NPDES: NPDES COMPLIANCE: UNKNOWN
PIPELINE TYPE: DOT REGULATED: UNKNOWN
PIPEL INF A ROVE CROUND: AROVE FYPOSED LINDERWATER: NO

PIPELINE ABOVE GROUND: ABOVE EXPOSED UNDERWATER: NO PIPELINE COVERED: UNKNOWN GRADE CROSSING: NO LOCATION SUBDIVISION: BURNHAM LEAD RAILROAD MILEPOST: 2.25

TYPE VEHICLE INVOLVED:

CROSSING DEVICE TYPE:

**DEVICE OPERATIONAL:** YES

DOT CROSSING NUMBER: BRAKE FAILURE: NO

- Continued on next page -

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS						
SEARCH ID: 52	DIST/DIR: 0.16 NV	V ELEVATION:	5222	MAP ID:	40	
NAME: ADDRESS: 800 SEMINOLE RD DENVER CO DENVER  CONTACT: SOURCE: NRC		REV: ID1: ID2: STATUS: PHONE:	12/31/06 NRC-804990 RAILROAD			
TANK ABOVE GROUND: TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID: DESCRIPTION OF TANK:	ABOVE UNKNOWN	TRANSPORTABLE CONTAINE TANK REGULATED BY: CAPACITY OF TANK: ACTUAL AMOUNT: PLATFORM RIG NAME: LOCATION AREA ID:	R: UNKNOWN			
OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	NO	OCSP NUMBER: PIER DOCK NUMBER: CONTIN RELEASE TYPE: CONT RELEASE PERMIT: TYPE OF STRUCTURE: STRUCT OPERATIONAL: DATE NORMAL SERVICE: SERVICE DISRUPT UNITS: CR BEGIN DATE: CR CHANGE DATE:	UNKNOWN			
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	NO NO NO	FIRE EXTINGUISHED: NUMBER EVACUATED: RADIUS OF EVACUATION: NUMBER INJURED: ANY FATALITIES: ANY DAMAGES: AIR CORRIDOR CLOSED: AIR CLOSURE TIME: WATERWAY DESC: ROAD CLOSED: ROAD CLOSURE TIME: MAJOR ARTERY:	UNKNOWN  NO NO NO NO			
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	NO BALLAST  2006-665 PARTLY CLOUD UNKNOWN	TRACK DESC: MEDIA INTEREST: ADDTL MEDIUM INFO: TRIBUTARY OF: RELEASE SECURED: RELEASE RATE: ST AGENCY ON SCENE: OTHER AGENCY NOTIFIED: OY WIND DIRECTION: SHEEN SIZE: DIR OF SHEEN TRAVEL: WAVE CONDITION: CURRENT DIRECTION:	NONE / RAILROAD YES AIR TEMPEI		70	
DESC OF REMEDIAL ACTION:	CONTRACTOR (	CUSTOMS ENVIRONMENTAL SEI	RVICES) WAS CAL	LED FOR CLE	AN UP	
EMPL FATALITY:	PASS FATALITY: - Continued on next page -					

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 52 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

 NAME:
 REV:
 12/31/06

 ADDRESS:
 800 SEMINOLE RD
 ID1:
 NRC-804990

DENVER CO
DENVER

STATUS: RAILROAD

CONTACT: PHONE:

SOURCE: NRC

COMMUNITY IMPACT: NO WIND SPEED UNITS:
EMPLOYEE INJURIES: PASSENGER INJURIES:
OCCUPANT FATALITY: CURRENT SPEED UNITS:
ROAD CLOSURE UNITS: TRACK CLOSURE UNITS:

SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: DPHE, DES

FED AGENCY NOTIFIED:

SHEEN SIZE LENGTH:

SHEEN SIZE LENGTH UNITS:

SHEEN SIZE WIDTH:

OFFSHORE:

N

N

N

N

N

DURATION UNIT:

OFFSHORE: N DURATION UNIT: RELEASE RATE UNIT: RELEASE RATE RATE:

ADDITIONAL INFO: CALLER STATED THE AMOUNT OF DIESEL IS GREATER THAN 100 GALLONS.

MATERIAL INFORMATION

CHRIS CODE: ODS CASE NUMBER: 000000-00-0

UN NUMBER: REACHED WATER: NO

NAME OF MATERIAL: OIL: DIESEL AMOUNT OF MATERIAL: 100 GALLON(S)

AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

TRAIN NAME/NUMBER: UP7029 RAILROAD NAME: UNION PACIFIC RAILROAD

TRAIN TYPE: LOCOMOTIVE TRACK SPEED: TRAIN SPEED: TRAIN DIRECTION: NUMBER OF LOCOMOTIVES: 1 NUMBER OF CARS:

NUMBER DERAILED: NON COMPLIANCE WITH HAZMAT: N

VESSEL INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SPILLS SEARCH ID:** 66 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 MAP ID: 40 NAME: UPRR **REV:** 10/08/10 ADDRESS: 800 SEMINOLE RD 2010-0504 ID1: DENVER CO ID2: STATUS: DENVER CONTACT: PHONE: SOURCE: CDPHE

DETAILS NOT AVAILABLE

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204 **SPILLS SEARCH ID:** 60 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 MAP ID: 40 NAME: UNION PACIFIC RAILROAD REV: ADDRESS: 800 SEMINOLE RD 2006-665 ID1: DENVER CO ID2: STATUS: **DENVER CONTACT:** PHONE: **SOURCE: CDPHE** PRP INFORMATION PRP NAME: UNION PACIFIC RAILROAD PRP CONTACT: JERRY HAMILTON PRP ADDRESS: 1400 DOUGLAS ST **OMAHA NB 68179** SPILL INFORMATION 7/21/2006 **EVENT DATE:** MATERIAL TYPE: OIL MATERIAL1: DIESEL **QUANTITY1:** 150 GALLONS WATER QUANTITY1: **MATERIAL2: QUANTITY2:** WATER QUANTITY2: **MATERIAL3: QUANTITY3:** WATER QUANTITY3: **SOURCE:** RAILWAY **SOURCE TYPE:** RAILROAD/TRAIN MEDIUM: LAND WATERWAY: CAUSE: ERROR OPERATOR **CAUSE INFO:** A valve was left open on locomotive engine UP7029 causing 100 to 150 gallons of fuel to be released to the soil at a stationary location. ACTION: They contracted with Cusyom Environmental to clean it up **RESPONSE COMMENTS: COMMENTS:** ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

SPILLS

REV:

**SEARCH ID:** 58 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: UNION PACIFIC

**ADDRESS:** 800 SEMINOLE RD **ID1:** 2006-538

DENVER CO 80204 ID2:

DENVER STATUS: CONTACT: PHONE:

SOURCE: CDPHE

PRP INFORMATION

PRP NAME: UNION PACIFIC PRP CONTACT:

PRP ADDRESS: 800 SEMINOLE RD

DENVER CO 80204

SPILL INFORMATION

EVENT DATE: 6/12/2006 MATERIAL TYPE: OIL

MATERIAL1: DIESEL FUEL

**QUANTITY1:** 

WATER QUANTITY1:

MATERIAL2: **OUANTITY2**:

QUANTITY 2:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

SOURCE: UNKNOWN
SOURCE TYPE: Describe source
MEDIUM: GROUND WATER

WATERWAY:

CAUSE: TRANSPORTATION ACCIDENT

CAUSE INFO: Diesel oil spill - 10-12 ft x 8-10 ft, Custom Environmental for clean-up

**ACTION:** 

**RESPONSE COMMENTS:** 

**COMMENTS:** 

ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SPILLS** 

REV:

**SEARCH ID:** 59 **DIST/DIR:** 0.16 NW **ELEVATION:** 5222 **MAP ID:** 40

NAME: UNION PACIFIC RAILROAD

**ADDRESS:** 800 SEMINOLE RD **ID1:** 2005-450

DENVER CO ID2:
DENVER STATUS:

CONTACT: PHONE:

SOURCE: CDPHE

PRP INFORMATION

**PRP NAME:** UNION PACIFIC RAILROAD

PRP CONTACT: DAVID ROSS
PRP ADDRESS: 1400 DOUGLAS
OMAHA NE 68179-

SPILL INFORMATION

EVENT DATE: 7/25/2005 MATERIAL TYPE: OIL

MATERIAL1: DIESEL QUANTITY1: 1500 GALLONS

WATER QUANTITY1: 0

MATERIAL2: **OUANTITY2**:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

SOURCE: FIXED FACILITY
SOURCE TYPE: RAILROAD/TRAIN
MEDIUM: FIXED FACILITY

WATERWAY:

CAUSE: FAILURE EQUIPMENT

**CAUSE INFO:** DURING THE FILLING OF A LOCOMOTIVE, UNKNOWN CAUSES LEAD TO THE

RELEASE OF DIESEL.

ACTION: ALL THE RELEASED MATERIAL WAS CAPTURED AND CONTAINED WITHIN A SECONDARY CONTAINMENT AREA.

**RESPONSE COMMENTS:** 

COMMENTS: NO WATERWAYS WERE IMPACTED.

ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 53 **DIST/DIR:** 0.16 NE **ELEVATION:** 5240 **MAP ID:** 41

 NAME:
 REV:
 12/31/02

 ADDRESS:
 658 KALAMGH
 ID1:
 NRC-616229

DENVER CO

DENVER CO

DENVER CO

DENVER CO

DENVER CO

DENVER STATUS: FIXED

CONTACT: PHONE: SOURCE: NRC

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

**DATE RECEIVED:** 7/10/2002 2:20:18 PM **DATE COMPLETE:** 

7/10/2002 2:24:12 PM

CALL TAKER: CALL TYPE: INC

RESPONSIBLE PARTY:

PHONE 1: PHONE 2: PHONE 3:

RESPONSIBLE COMPANY:

ORGANIZATION TYPE: UNKNOWN

ADDRESS:

XX

SOURCE: TELEPHONE

**INCIDENT INFORMATION** 

INCIDENT DESCRIPTION: THE MATERIAL RELEASED FROM A POLE MOUNTED TRANSFORMER DUE A LEAK.

INCIDENT TYPE: FIXED INCIDENT CAUSE: EQUIPMENT FAILURE INCIDENT DATE: 7/10/2002 12:15:00 PM INCIDENT DATE DESC:

DISCOVERED

DISTANCE FROM CITY:
DISTANCE FROM CITY:
DIRECTION FROM CITY:
LOCATION TOWNSHIP:
LOCATION RANGE:

AIRCRAFT TYPE: UNKNOWN AIRCRAFT MODEL:

AIRCRAFT IN AIRCRAFT MODEL:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL CAPACITY:
AIRCRAFT FUEL ON BOARD:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT FUEL ON BOARD UNITS:
AIRCRAFT RUNWAY NUM:

ROAD MILE MARKER: BUILDING ID:

TYPE OF FIXED OBJECT: TRANSFORMER POWER GEN FACILITY: NO

GENERATING CAPACITY: TYPE OF FUEL:

NPDES: NPDES COMPLIANCE: UNKNOWN

PIPELINE TYPE:DOT REGULATED:UNKNOWNPIPELINE ABOVE GROUND:ABOVEEXPOSED UNDERWATER:NO

**CROSSING DEVICE TYPE:** 

PIPELINE COVERED: UNKNOWN GRADE CROSSING: LOCATION SUBDIVISION: RAILROAD MILEPOST:

TYPE VEHICLE INVOLVED:
DEVICE OPERATIONAL:
YES

DOT CROSSING NUMBER: BRAKE FAILURE: NO

TANK ABOVE GROUND: ABOVE TRANSPORTABLE CONTAINER: UNKNOWN

- Continued on next page -

NO

6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000 **Target Property:** 

ERNS						
SEARCH ID: 53	DIST/DIR:	0.16 NE	ELEVATION:	5240	MAP ID:	41
NAME: ADDRESS: 658 KALAMGH DENVER CO DENVER CONTACT: SOURCE: NRC			REV: ID1: ID2: STATUS: PHONE:	12/31/02 NRC-616229 FIXED		
TANK REGULATED: TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID:	UNKNO		TANK REGULATED BY: CAPACITY OF TANK: ACTUAL AMOUNT: PLATFORM RIG NAME: LOCATION AREA ID:			
DESCRIPTION OF TANK:  OCSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:	NO		OCSP NUMBER: PIER DOCK NUMBER: CONTIN RELEASE TYPE: CONT RELEASE PERMIT: TYPE OF STRUCTURE: STRUCT OPERATIONAL: DATE NORMAL SERVICE: SERVICE DISRUPT UNITS: CR BEGIN DATE: CR CHANGE DATE:	UNKNOWN		
FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:	NO NO NO		FIRE EXTINGUISHED: NUMBER EVACUATED: RADIUS OF EVACUATION: NUMBER INJURED: ANY FATALITIES: ANY DAMAGES: AIR CORRIDOR CLOSED: AIR CLOSURE TIME: WATERWAY DESC: ROAD CLOSED: ROAD CLOSURE TIME: MAJOR ARTERY:	NO NO NO NO		
TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR: SHEEN ODOR DESCRIPTION: CURRENT SPEED: WATER TEMPERATURE:	NO WATER UNKNO CLEAR UNKNO	R DWN STREA	TRACK DESC: MEDIA INTEREST: ADDTL MEDIUM INFO: AM RELEASE SECURED: RELEASE RATE: ST AGENCY ON SCENE: OTHER AGENCY NOTIFIED: AIR TEMPERATURE: WIND DIRECTION: SHEEN SIZE: DIR OF SHEEN TRAVEL: WAVE CONDITION: CURRENT DIRECTION:	NONE UNKNOWN: TRIBUTARY UNKNOWN		
DESC OF REMEDIAL ACTION: EMPL FATALITY: COMMUNITY IMPACT:	NONE NO		PASS FATALITY: WIND SPEED UNITS:			
COMMENTAL EMPLOY				Continued on ne	ext page -	

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**RELEASE RATE RATE:** 

**SEARCH ID:** 53 **DIST/DIR:** 0.16 NE **ELEVATION:** 5240 **MAP ID:** 41

NAME: REV: 12/31/02 ADDRESS: 658 KALAMGH NRC-616229 ID1:

DENVER CO ID2:

**DENVER** STATUS: FIXED

**CONTACT:** PHONE: SOURCE: NRC

EMPLOYEE INJURIES: PASSENGER INJURIES: OCCUPANT FATALITY: **CURRENT SPEED UNITS: ROAD CLOSURE UNITS:** TRACK CLOSURE UNITS: SHEEN SIZE UNITS: STATE AGENCY NOTIFIED: FED AGENCY NOTIFIED: NEAREST RIVER MILE MARK: SHEEN SIZE LENGTH: SHEEN SIZE LENGTH UNITS:

SHEEN SIZE WIDTH: SHEEN SIZE WIDTH UNITS: **OFFSHORE:** N **DURATION UNIT:** RELEASE RATE UNIT:

ADDITIONAL INFO: THE CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

000000-00-0 **CHRIS CODE:** OMN **CASE NUMBER:** UN NUMBER: REACHED WATER: YES

NAME OF MATERIAL: OIL, MISC: MINERAL (PCB UNKNOWN) AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

SPILLS

**SEARCH ID:** 68 **DIST/DIR:** 0.17 NE **ELEVATION:** 5234 **MAP ID:** 42

NAME: REV:

ADDRESS: WEST W. 8TH and MARIPOSA AVE ID1: 2005-359

DENVER CO ID2:
DENVER STATUS:

CONTACT: PHONE: SOURCE: CDPHE

PRP INFORMATION

PRP NAME: PRP CONTACT: PRP ADDRESS:

CO

SPILL INFORMATION

EVENT DATE: 6/10/2005 MATERIAL TYPE: OIL

MATERIAL1:TRANSFORMER OILQUANTITY1:60 GALLONSWATER QUANTITY1:40 GALLONS

MATERIAL2: **OUANTITY2**:

WATER QUANTITY2:

MATERIAL3: QUANTITY3:

WATER QUANTITY3:

SOURCE: HIGHWAY
SOURCE TYPE: TRUCK/TRAILER
MEDIUM: WATER AND LAND
WATERWAY: STORM SEWER

CAUSE: TRANSPORTATION ACCIDENT

CAUSE INFO: A VEHICLE HIT A POWRE POLE WHICH HAD THREE TRANSFORMERS MOUNTED ON

IT. THE POLE COLLAPSED TO THE GROUND WHICH CAUSED THE TRANFORMER OIL TO RELEASE FROM ALL THREE

TRANSFORMERS. RELEASED OIL IMPACTED A NEARBY STORM SEWER.

**ACTION:** RM CAT IS ON THE SCENE CLEANING UP ALL IMPACTED AREAS. THE STORM SEWER WHICH WAS IMPACTED OUTFALSS INTO A NEARBY PARKING LOT, SO NO SURFACE WATERS WERE IMPACTED. THE STORM SEWER ABOUT 60FT. LONG FROM ACCIDENT POINT TO OUTFALL.

RESPONSE COMMENTS:

 ${\bf COMMENTS:} \\ {\bf THE\ TRANSFORMER\ OIL\ WHICH\ WAS\ RELEASED\ POSSIBLY\ CONTAINED\ PCB\ S.\ ONE \\ {\bf THREE\ TRANSFORMERS\ WERE\ DAMAGED\ IN\ THE\ ACCIDENT.\ ONE\ HAD\ A\ LABEL\ THAT\ READ\ LESS\ <2\ PCB\ S\ AND\ THE\ OTHER\ TWO\ HAD\ LABELS\ THAT\ READ\ <50\ PCB\ S.\ XCEL\ TOOK\ SAMPLES\ OF\ THE\ OIL\ AND\ ARE\ AWAITNIG\ T$ 

ADDITIONAL COMMENTS:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 76 **DIST/DIR:** 0.20 SW **ELEVATION:** 5210 **MAP ID:** 43

NAME: ASSOCIATED STATIONER INC PROPERTY REV: 04/01/11

 ADDRESS:
 501 RARITAN WAY
 ID1:
 15421

 DENVER CO 80204
 ID2:

DENVER STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 18540

OWNER NAME:

OWNER ADDRESS: 501 RARITAN WAY

DENVER CO 80204

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=15421

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 32 **DIST/DIR:** 0.20 SW **ELEVATION:** 5210 **MAP ID:** 43

NAME: FUJI PHOTO FILM USA INC REV: 1/11/11

ADDRESS: 501 RARITAN WAY ID1: COR000204263

DENVER CO 80204 ID2:

DENVER STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

**HAZARDOUS WASTE INFORMATION:** 

D011 - Silver

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 38 **DIST/DIR:** 0.20 SE **ELEVATION:** 5240 **MAP ID:** 44

NAME: W RAY CRABB REV: 1/11/11

ADDRESS: 471 KALAMATH ID1: COD983800392

DENVER CO 80201 ID2:

STATUS: NLR PHONE:

CONTACT: SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

#### SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

#### NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### **VIOLATION INFORMATION:**

### HAZARDOUS WASTE INFORMATION:

D001 - Ignitable waste

D035 - Methyl ethyl ketone

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRAGN** 

**SEARCH ID:** 21 **DIST/DIR:** 0.21 NE **ELEVATION:** 5242 **MAP ID:** 45

NAME: BAR SCREEN GRAPHICS REV: 1/11/11

ADDRESS: 1045 W 8TH AVE ID1: COR000200618

DENVER CO 80204 ID2:

STATUS: VGN
CONTACT: PHONE:

CONTACT: SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:

GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

#### **NAIC INFORMATION**

#### **ENFORCEMENT INFORMATION:**

### **VIOLATION INFORMATION:**

### **HAZARDOUS WASTE INFORMATION:**

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

D001 - Ignitable waste

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRAGN** 

4/19/01

**SEARCH ID:** 28 **DIST/DIR:** 0.22 SE **ELEVATION:** 5241 **MAP ID:** 46

NAME: US AUTO BODY and PAINT REV:

ADDRESS: 450 KALAMATH ST ID1: COD982649626

DENVER CO 80204 ID2:

DENVER STATUS: SGN

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE NAME:** 

SGN: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 37 **DIST/DIR:** 0.22 SE **ELEVATION:** 5241 **MAP ID:** 46

NAME: US AUTO BODY and PAINT REV: 1/11/11

ADDRESS: 450 KALAMATH ST ID1: COD982649626

DENVER CO 80204 ID2:

DENVER STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

#### NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### **VIOLATION INFORMATION:**

### HAZARDOUS WASTE INFORMATION:

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 116 **DIST/DIR:** 0.22 NE **ELEVATION:** 5242 **MAP ID:** 47

NAME:ADCO GENERAL CORPORATION PROPERTYREV:04/04/11ADDRESS:1021 WEST 8TH AVEID1:7236

SS: 1021 WEST 8TH AVE ID1: 7236 DENVER CO 80218 ID2:

DENVER CO 00210

DENVER

STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 2/3/1999

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=7236

UST

**SEARCH ID:** 75 **DIST/DIR:** 0.22 NE **ELEVATION:** 5242 **MAP ID:** 47

NAME: ADCO GENERAL CORPORATION PROPERTY REV: 04/01/11

 ADDRESS:
 1021 WEST 8TH AVE
 ID1:
 14737

 DENVER CO 80218
 ID2:

STATUS:
PHONE:

CONTACT: PHON SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17702

OWNER NAME:

OWNER ADDRESS: UNKNOWN

ARVADA CO 80002

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Z Not Listed

 TANK CAPACITY:
 300

 TANK ID:
 32532

 TANK TAG:
 14737-1

**LINK:** http://costis.cdle.state.co.us/facility.asp?h\_id=14737

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRAGN** 

**SEARCH ID:** 23 **DIST/DIR:** 0.23 SE **ELEVATION:** 5240 **MAP ID:** 48

NAME: RICKENBAUGH REV: 1/11/11

ADDRESS: 444 KALAMATH ID1: COR000001727

DENVER CO 80203 ID2:

CONTACT: SGN PHONE: SGN

SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO

GENERATOR STATUS: SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000

KG/MONTH OF HAZARDOUS WASTE

#### NAIC INFORMATION

811121 - AUTOMOTIVE BODY, PAINT, AND INTERIOR REPAIR AND MAINTENANCE

44111 - NEW CAR DEALERS

#### **ENFORCEMENT INFORMATION:**

### VIOLATION INFORMATION:

### **HAZARDOUS WASTE INFORMATION:**

D008 - Lead

D018 - Benzene

D035 - Methyl ethyl ketone

D039 - Tetrachloroethylene

D040 - Trichloroethylene

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRANLR** 

**SEARCH ID:** 29 **DIST/DIR:** 0.23 SE **ELEVATION:** 5243 **MAP ID:** 49

NAME: CINTAS CORPORATION REV: 1/11/11

**ADDRESS**: 545 SANTA FE DR **ID1**: COD032037483

DENVER CO 80204 ID2:

STATUS: NLR

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: CORRECTIVE ACTION WORKLOAD: N - NO **GENERATOR STATUS:** 

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

**HAZARDOUS WASTE INFORMATION:** 

F002 - The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoro

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 129 **DIST/DIR:** 0.23 SE **ELEVATION:** 5244 **MAP ID:** 50

 NAME:
 CONOCO SS
 REV:
 04/04/11

 ADDRESS:
 571 SANTA FE DR
 ID1:
 5808

DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 3/5/1997

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**UST** 

SEARCH ID: 73 **ELEVATION: DIST/DIR:** 0.23 SE 5244 MAP ID: 50

NAME: 6TH and SANTA FE CONOCO REV: 04/01/11

**ADDRESS:** 571 SANTA FE DR ID1: 7521 DENVER CO 80204 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 854

OWNER NAME: LANG; CURTIS OWNER ADDRESS: 571 SANTA FE DR

DENVER CO 80204

TANK INFORMATION

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 1000 TANK ID: 19803 TANK TAG: 7521-1

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 19804 TANK TAG: 7521-2

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 2000 TANK ID: 19805 TANK TAG: 7521-3

TANK TYPE: UST TANK CONTENTS: Gasoline TANK CAPACITY: 6000 TANK ID: 19806 TANK TAG: 7521-4

TANK TYPE: UST

TANK CONTENTS: 6 - Used Oil (Waste Oil)

TANK CAPACITY: 560

TANK ID: 19807 TANK TAG: 7521-5

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=7521

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 78 **DIST/DIR:** 0.23 S- **ELEVATION:** 5226 **MAP ID:** 51

NAME: BOYD DISTRIBUTING CO

REV: 04/01/11

 ADDRESS:
 340 NAVAJO ST
 ID1:
 10237

 DENVER CO 80223
 ID2:

CONTACT: STATUS: PHONE:

**SOURCE:** COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 18

**OWNER NAME:** BOYD DISTRIBUTING CO;

OWNER ADDRESS: 1400 W 3RD AVE

DENVER CO 80223

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 560

 TANK ID:
 27628

 TANK TAG:
 10237-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 560

 TANK ID:
 27629

 TANK TAG:
 10237-2

 TANK TYPE:
 UST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 2000

 TANK ID:
 27630

 TANK TAG:
 10237-3

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 1000

 TANK ID:
 27631

 TANK TAG:
 10237-4

**LINK:** http://costis.cdle.state.co.us/facility.asp?h\_id=10237

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

**LUST** 

SEARCH ID: 146 **DIST/DIR:** 0.23 -E **ELEVATION:** 5244 52 MAP ID:

NAME: SIXTH and SANTA FE CAR WASH **REV:** 04/04/11 **ADDRESS:** 603 SANTA FE DR

ID1: 6587 DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

**CONTACT:** PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 6/2/1998

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 105 **DIST/DIR:** 0.23 -E **ELEVATION:** 5244 **MAP ID:** 52

NAME: SIXTH and SANTA FE CAR WASH REV: 04/01/11

 ADDRESS:
 603 SANTA FE DR
 ID1:
 5778

 DENVER CO 80204
 ID2:

STATUS:

CONTACT: PHONE: SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 3977

**OWNER NAME:** SIXTH and SANTA FE CAR WASH;

**OWNER ADDRESS:** 603 SANTA FE DR

DENVER CO 80204

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 8000

 TANK ID:
 15786

 TANK TAG:
 5778-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 8000

 TANK ID:
 15787

 TANK TAG:
 5778-2

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 8000

 TANK ID:
 15788

 TANK TAG:
 5778-3

**LINK:** http://costis.cdle.state.co.us/facility.asp?h\_id=5778

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 121 **DIST/DIR:** 0.23 S- **ELEVATION:** 5225 **MAP ID:** 53

 NAME:
 BOYD DISTRIBUTING
 REV:
 04/04/11

 ADDRESS:
 340 NAVAJO ST
 ID1:
 6994

DENVER CO 80202 ID2: 6994

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

**STATUS:** Closed **LOG DATE:** 10/18/1991

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

**RCRAGN** 

**SEARCH ID:** 25 **DIST/DIR:** 0.24 SE **ELEVATION:** 5244 **MAP ID:** 54

NAME: SHERWIN-WILLIAMS REV: 1/11/11

**ADDRESS:** 543 SANTA FE DR **ID1:** COR000014753

DENVER CO 80204 ID2:

STATUS: SGN

CONTACT: PHONE: SOURCE: EPA

#### SITE INFORMATION

#### **UNIVERSE INFORMATION:**

#### SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD: ----CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: ----PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: -----

CORRECTIVE ACTION WORKLOAD: N - NO

**GENERATOR STATUS:** SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

#### NAIC INFORMATION

#### **ENFORCEMENT INFORMATION:**

#### **VIOLATION INFORMATION:**

#### **HAZARDOUS WASTE INFORMATION:**

D018 - Benzene

D007 - Chromium

D001 - Ignitable waste

D035 - Methyl ethyl ketone

D039 - Tetrachloroethylene

D040 - Trichloroethylene

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

**SEARCH ID:** 48 **DIST/DIR:** 0.24 SE **ELEVATION:** 5244 **MAP ID:** 55

 NAME:
 PUBLIC SERVICE CO
 REV:
 11/22/96

 ADDRESS:
 545 NORTH SANTA FE ST
 ID1:
 516056

545 NORTH SANTA FE ST **ID1:** 516056 DENVER CO 80204 **ID2:** 

STATUS: PIPELINE RELATED

CONTACT: PHONE: SOURCE: EPA

SPILL INFORMATION

**DATE OF SPILL:** 11/22/96 **TIME OF SPILL:** 1558

**PRODUCT RELEASED (1):** NATURAL GAS

**QUANTITY (1):** 0 **UNITS (1):** UNK

PRODUCT RELEASED (2):

QUANTITY (2): UNITS (2):

PRODUCT RELEASED (3):

QUANTITY (3): UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO GROUNDWATER: NO LAND: NO FIXED FACILITY: NO WATER: NO OTHER: YES

WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING:NOEQUIPMENT FAILURE:NONATURAL PHENOMENON:NOOPERATOR ERROR:NOOTHER CAUSE:NOTRANSP. ACCIDENT:NOUNKNOWN:NO

**ACTIONS TAKEN:** INVESTIGATORS ARE ON-SCENE

**RELEASE DETECTION:** BUILDING / EXPLODED (MAY HAVE BEEN A NATURAL GAS PIPELINE INCIDENT) **MISC. NOTES:** THERE MAY HAVE BEEN PEOPLE INJURED IN THE INCIDENT. CANCELLED.

**DISCHARGER INFORMATION** 

DISCHARGER ID: 516056 DUN and BRADSTREET:

TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: PUBLIC SERVICE CO
1225 17TH STREET
DENVER CO

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**ERNS** 

11/22/96 - BUILDING / EXPLODED (MAY HAVE BEEN A NATURAL GAS PIPELINE

SEARCH ID: 45 DIST/DIR: 0.24 SE ELEVATION: MAP ID: 55

 NAME:
 INCIDENT 368399
 REV:
 12/30/08

 ADDRESS:
 545 NORTH SANTA FE ST
 ID1:
 368399-CO

DENVER CO
DENVER

DENVER

DENVER

DENVER

DENVER

DENVER

DENVER

DENVER

DENVER

CONTACT: PHONE: SOURCE: NRC

INCIDENT)
MATERIAL:
AMOUNT:

INCIDENT DESCRIPTION:

LINK: http://www.nrc.uscg.mil/reports/rwservlet?standard\_web+inc\_seq=368399

SWL

**SEARCH ID:** 69 **DIST/DIR:** 0.24 N- **ELEVATION:** 5232 **MAP ID:** 56

 NAME:
 STAFAB
 REV:
 12/01/08

 ADDRESS:
 860 NAVAJO
 ID1:
 016-REC-001

DENVER CO 80204 ID1: 016-RI
DENVER STATUS:

CONTACT: PHONE: SOURCE: CDPHE

**STATUS :** Per CDPHE:

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 74 **DIST/DIR:** 0.24 -E **ELEVATION:** 5244 **MAP ID:** 57

 NAME:
 A-B PETROLEUM 22
 REV:
 04/01/11

 ADDRESS:
 620 SANTA FE DR
 ID1:
 8553

620 SANTA FE DR ID1: 8553 DENVER CO 80204 ID2:

CONTACT: STATUS: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 50

OWNER NAME:

**OWNER ADDRESS:** 1245 W ALAMEDA AVE

DENVER CO 80223

TANK INFORMATION

TANK TYPE: UST

TANK CONTENTS: 1 - Unleaded Regular (RUL)

 TANK CAPACITY:
 10000

 TANK ID:
 22350

 TANK TAG:
 8553-1

TANK TYPE: UST

TANK CONTENTS: 1 - Unleaded Regular (RUL)

 TANK CAPACITY:
 10000

 TANK ID:
 22351

 TANK TAG:
 8553-2

TANK TYPE: UST

TANK CONTENTS: 2 - Unleaded Mid-Grade (MUL)

 TANK CAPACITY:
 10000

 TANK ID:
 22352

 TANK TAG:
 8553-3

TANK TYPE: UST

TANK CONTENTS: 3 - Unleaded Premium (PUL)

 TANK CAPACITY:
 10000

 TANK ID:
 22353

 TANK TAG:
 8553-4

 TANK TYPE:
 UST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 10000

 TANK ID:
 22354

 TANK TAG:
 8553-5

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=8553

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

UST

**SEARCH ID:** 81 **DIST/DIR:** 0.24 NE **ELEVATION:** 5240 **MAP ID:** 58

NAME: CARLOS 66 REV: 04/01/11

 ADDRESS:
 800 KALAMATH ST
 ID1:
 5335

 DENVER CO 80203
 ID2:

STATUS: PHONE:

SOURCE: COSTIS

CONTACT:

OWNER INFORMATION

OWNER ID NUMBER: 3208

OWNER NAME: CARLOS and SELVA LLANES;

OWNER ADDRESS: 800 KALAMATH ST

DENVER CO 80203

TANK INFORMATION

 TANK TYPE:
 UST

 TANK CONTENTS:
 4 - Diesel

 TANK CAPACITY:
 6000

 TANK ID:
 14697

 TANK TAG:
 5335-1

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 14698

 TANK TAG:
 5335-2

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 4000

 TANK ID:
 14699

 TANK TAG:
 5335-3

 TANK TYPE:
 UST

 TANK CONTENTS:
 Gasoline

 TANK CAPACITY:
 2000

 TANK ID:
 14700

 TANK TAG:
 5335-4

TANK TYPE: UST

**TANK CONTENTS:** 6 - Used Oil (Waste Oil)

**TANK CAPACITY:** 560 **TANK ID:** 14701

**TANK ID:** 14701 **TANK TAG:** 5335-5

**LINK:** http://costis.cdle.state.co.us/facility.asp?h\_id=5335

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**UST** 

SEARCH ID: 80 **ELEVATION: DIST/DIR:** 0.24 NE 5240 MAP ID: 58

NAME: CARLOS 66 REV: 04/01/11

ADDRESS: 800 KALAMATH ST 12992 ID1: DENVER CO 80203 ID2:

STATUS: CONTACT: PHONE:

SOURCE: COSTIS

OWNER INFORMATION

OWNER ID NUMBER: 17473

OWNER NAME: LLANES; CARLOS OWNER ADDRESS: 800 KALAMATH ST DENVER CO 80203

TANK INFORMATION

LINK: http://costis.cdle.state.co.us/facility.asp?h\_id=12992

**LUST** 

**SEARCH ID:** 125 **DIST/DIR:** 0.24 NE **ELEVATION:** 5240 MAP ID: 58

NAME: CARLOS 66 **REV:** 04/04/11 ADDRESS: 800 KALAMATH ST 3013 ID1: DENVER CO 80203 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE:

SOURCE: COSTIS

**LUST INFORMATION STATUS:** Closed LOG DATE: 1/12/1994

6TH AVENUE BRIDGE **Target Property: JOB:** 11137801.3000

DENVER CO 80204

**SWL** 

**SEARCH ID:** 72 **DIST/DIR:** 0.25 S-**ELEVATION:** 59 MAP ID:

NAME: KNOWN LANDFILL

**REV:** 12/01/08 ADDRESS: SOUTH BOUNDARIES APPROXIMATE: N OF W. 4TH AVE. 132 ID1:

00070-0000676 DENVER CO ID2: DENVER STATUS: HISTORIC

CONTACT: PHONE:

SOURCE: CDPHE/COUNTY

#### COLORADO HISTORIC LANDFILLS

STATUS: Denver CO Old Fill Sites

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO

LIQUIDS: NO

HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO

UNKNOWN: YES

CONFIDENCE IN THIS INFO: LOW

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 122 **DIST/DIR:** 0.26 S- **ELEVATION:** 5224 **MAP ID:** 60

 NAME:
 BOYD DISTRIBUTING CO
 REV:
 04/04/11

 ADDRESS:
 350 OSAGE ST
 ID1:
 140

DENVER CO 80223 ID2:
STATUS: CLOSED

STATUS: CONTACT: PHONE:

CONTACT: PHOTOSOURCE: COSTIS

LUST INFORMATION

**STATUS:** Closed **LOG DATE:** 12/30/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=140

LUST

**SEARCH ID:** 149 **DIST/DIR:** 0.26 N- **ELEVATION:** 5231 **MAP ID:** 61

 NAME:
 STOUT STREET FOUNDATION
 REV:
 04/04/11

 ADDRESS:
 875 NAVAJO ST
 ID1:
 3161

DENVER CO 80204 ID2:

STATUS: STATE LEAD

CONTACT: PHONE:

SOURCE: COSTIS

**LUST INFORMATION** 

STATUS: State Lead LOG DATE: 4/3/1996

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 124 **DIST/DIR:** 0.27 SW **ELEVATION:** 5217 **MAP ID:** 62

 NAME:
 BP INVESTMENT
 REV:
 04/04/11

 ADDRESS:
 330 QUIVAS ST
 ID1:
 3071

DENVER CO 80223 ID2:
STATUS: CLOSED

CONTACT: PHONE:

SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 2/12/1990

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=3071

LUST

**SEARCH ID:** 132 **DIST/DIR:** 0.28 NE **ELEVATION:** 5242 **MAP ID:** 63

 NAME:
 DICK LESNICK
 REV:
 04/04/11

 ADDRESS:
 866 LIPAN
 ID1:
 1616

DENVER CO 80204 ID2:

STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 12/9/1991

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID: ELEVATION:** 126 **DIST/DIR:** 0.30 NE 5246 MAP ID: 64

**REV:** NAME: CARTER LUBRICATION AKA GREASE MONKEY 04/04/11 ADDRESS: 901 WEST 8TH AVE

ID1: 7431 DENVER CO 80204 ID2:

**DENVER** STATUS: CLOSED

**CONTACT:** PHONE: **SOURCE:** COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 4/29/1999

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=7431

**LUST** 

**SEARCH ID:** 140 DIST/DIR: 0.31 SW **ELEVATION:** 5221 MAP ID: 65

MURRAY DISTRIBUTING CO INC NAME: **REV:** 04/04/11 ADDRESS: 1505 WEST 3RD AVE ID1: 540 DENVER CO 80223 ID2:

CLOSED **DENVER** STATUS:

CONTACT: PHONE:

SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 12/14/1990

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID: DIST/DIR:** 0.31 SE **ELEVATION:** MAP ID: 144 5235 66

**REV:** NAME: RTD 04/04/11 ADDRESS:

301 KALAMATH ST ID1: 5491 DENVER CO 80204 ID2:

**DENVER** STATUS: CLOSED

**CONTACT:** PHONE: **SOURCE:** COSTIS

LUST INFORMATION

**STATUS:** Closed LOG DATE: 4/18/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=5491

**LUST** 

**SEARCH ID:** 133 **DIST/DIR:** 0.32 NW **ELEVATION:** 5207 MAP ID: 67

ELMS INVESTMENT PROPERTY NAME: **REV:** 04/04/11 ADDRESS: 730 UMATILLA ST ID1: 5434

DENVER CO 80204 ID2:

CLOSED STATUS:

CONTACT: PHONE: **SOURCE:** COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 5/31/1996

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 151 **DIST/DIR:** 0.32 SE **ELEVATION:** 5230 **MAP ID:** 68

NAME: WASTE WATER MGMT REV: 04/04/11

ADDRESS: 3RD AVE and S PLATTE RIVER DR ID1: 4990 DENVER CO 80223 ID2:

STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 5/22/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=4990

LUST

**SEARCH ID:** 113 **DIST/DIR:** 0.33 NW **ELEVATION:** 5206 **MAP ID:** 69

 NAME:
 740 INVESTORS
 REV:
 04/04/11

 ADDRESS:
 740 UMATILLA ST
 ID1:
 2871

DENVER CO 80204 ID2:

CONTACT: STATUS: CLOSED PHONE:

CONTACT: SOURCE: COSTIS

**LUST INFORMATION** 

STATUS: Closed LOG DATE: 3/16/1993

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 141 **DIST/DIR:** 0.34 NW **ELEVATION:** 5204 **MAP ID:** 70

 NAME:
 NEWSTROM-DAVIS CONSTRUCTION CO
 REV:
 04/04/11

 ADDRESS:
 2000 WEST 8TH AVE
 ID1:
 5137

2000 WEST 8TH AVE ID1: 5137 DENVER CO 80204 ID2:

STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 9/8/1992

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=5137

LUST

**SEARCH ID:** 150 **DIST/DIR:** 0.34 NE **ELEVATION:** 5249 **MAP ID:** 71

 NAME:
 TS GAS
 REV:
 04/04/11

 ADDRESS:
 801 WEST 8TH AVE
 ID1:
 5640

 DENVER CO 80204
 ID2:

DENVER CO 80204 ID2:
DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 11/29/1995

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 13 **ELEVATION: DIST/DIR:** 0.35 SE 5243 MAP ID: 72

**REV:** NAME: ALERT POLISHING AND PLATING 1/11/11

ADDRESS: 345 SANTA FE DR COR000016204 ID1:

DENVER CO 80223 ID2:

**DENVER** STATUS: CA

**CONTACT:** PHONE:

DETAILS NOT AVAILABLE

EPA

**SOURCE:** 

SWL

**SEARCH ID: DIST/DIR:** 0.35 SW **ELEVATION:** MAP ID: 73 70

NAME: KNOWN LANDFILL **REV:** 12/01/08

ADDRESS: WEST BOUNDARIES APPROXIMATE: N: W. 3RD AVE. E: PLATTE 135 ID1:

00070-0000679 DENVER CO ID2:

**DENVER** STATUS: HISTORIC CONTACT: PHONE:

**SOURCE:** CDPHE/COUNTY

#### COLORADO HISTORIC LANDFILLS

STATUS: Denver CO Old Fill Sites

Fill- DOMESTIC REFUSE: NO CONSTRUCTION DEBRIS: NO

LIQUIDS: NO

HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO

UNKNOWN: YES

CONFIDENCE IN THIS INFO: LOW

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 110 **DIST/DIR:** 0.35 SE **ELEVATION:** 5238 **MAP ID:** 74

 NAME:
 3RD AND KALAMATH ST PROPERTY
 REV:
 04/04/11

 ADDRESS:
 300- 304 KALAMATH ST
 ID1:
 8922

300- 304 KALAMATH ST **ID1:** 8922 **DENVER CO 80222 ID2:** 

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed

**LOG DATE:** 5/6/2002 10:24:28 AM

 $\textbf{LINK:} \ http://cost is.cdle.state.co.us/event.asp?h\_id=8922$ 

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

RCRATSD

**SEARCH ID:** 12 **DIST/DIR:** 0.36 NW **ELEVATION:** 5204 **MAP ID:** 75

NAME: LINCOLN PLATING COMPANY REV: 6/8/02

ADDRESS: 777 UMATILLA ID1: COD007073901

DENVER CO 80204 ID2:

STATUS: TSD

**CONTACT:** DOUG BALL **PHONE:** 4024753671 **SOURCE:** EPA

SITE INFORMATION

CONTACT INFORMATION: DOUG BALL

ENV COMPL MGR 777 UMATILLA DENVER CO 80204

**PHONE:** 4024753671

**UNIVERSE NAME:** 

DF: LAND DISPOSAL FACILITY

INCINERATOR

TSDS SUBJECT TO CORRECTIVE ACT

SUBJECT TO CEI

ST: STORAGE AND TREATMENT SUBJECT TO CORRECTIVE ACTION

SIC INFORMATION:

**ENFORCEMENT INFORMATION:** 

AGENCY: S - STATE DATE: 29-JUN-87

TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

 VIOLATION NUMBER:
 0001
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 13-MAR-87
 DETERMINED BY:
 S - STATE

 CITATION:
 RESOLVED:
 06/29/1987

TYPE: GER - GENERATOR ALL REQUIREMENTS

VIOLATION NUMBER:0002RESPONSIBLE:S - STATEDETERMINED:25-JUL-00DETERMINED BY:S - STATE

CITATION: 25-30L-00 DETERMINED BY: 5-51ATE

8-51ATE

262.34,265.195,265.174

RESOLVED: 10/02/2000

**TYPE:** GGR - GENERATOR GENERAL REQUIREMENTS

 VIOLATION NUMBER:
 0003
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 25-JUL-00
 DETERMINED BY:
 S - STATE

 CITATION:
 262.20
 RESOLVED:
 10/02/2000

TYPE: GMR - GENERATOR MANIFEST REQUIREMENTS

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 17 **DIST/DIR:** 0.36 NW **ELEVATION:** 5204 **MAP ID:** 75

NAME: LINCOLN PLATING COMPANY REV: 1/11/11

ADDRESS: 777 UMATILLA ID1: COD007073901

DENVER CO 80204 ID2:

STATUS: CA
CONTACT: PHONE:

CONTACT: SOURCE: EPA

SITE INFORMATION

UNIVERSE INFORMATION:

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD: ----CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:

CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD

GENERATOR STATUS: N

NAIC INFORMATION

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

332813-ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

**ENFORCEMENT INFORMATION:** 

**AGENCY:** S - STATE **DATE:** 6/29/1987

TYPE: 120 - WRITTEN INFORMAL

**VIOLATION INFORMATION:** 

VIOLATION NUMBER:0002RESPONSIBLE:S - STATEDETERMINED:7/25/2000DETERMINED BY:S - STATE

CITATION: 262.34,265.195,265.174 **RESOLVED:** 10/2/2000

TYPE: GENERATOR-GENERAL REQUIREMENTS

 VIOLATION NUMBER:
 0003
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 7/25/2000
 DETERMINED BY:
 S - STATE

 CITATION:
 262.20
 RESOLVED:
 10/2/2000

TYPE: GENERATOR-MANIFEST REQUIREMENTS

CORRECTIVE ACTION INFORMATION

**CA EVENT:** 19980204 CA814AS

**CA EVENT:** 20070309 CA8310M

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 17 **DIST/DIR:** 0.36 NW **ELEVATION:** 5204 **MAP ID:** 75

NAME: LINCOLN PLATING COMPANY REV: 1/11/11

ADDRESS: 777 UMATILLA ID1: COD007073901

DENVER CO 80204 ID2:

STATUS: CA
ONTACT: PHONE:

CONTACT: SOURCE: EPA

CA EVENT: 20020314 CA100 - RFI IMPOSITION

**CA EVENT:** 20070315 CA834OM

CA EVENT: 20070315 CA999RM - CA PROCESS IS TERMINATED-REMEDIAL ACTIVITIES COMPLETE

CA EVENT: 20020404 CA260 - CMS Workplan Received

CA EVENT: 20020415 CA300 - CMS WORKPLAN APPROVED

CA EVENT: 20020415 CA400 - DATE FOR REMEDY SELECTION (CM IMPOSED)

CA EVENT: 20020415 CA450 - CORRECTIVE MEASURES DESIGN APPROVED

CA EVENT: 19980422 CA190 - RFI Report Received

**CA EVENT:** 19970515 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

CA EVENT: 19970515 CA006AC - Area of Concern

CA EVENT: 19970515 CA060 - NOTICE OF CONTAMINATION

CA EVENT: 19970515 CA070YE - DETERMINATION OF NEED FOR A RFI-RFI IS NECESSARY

**CA EVENT:** 19970515 CA077M

**CA EVENT:** 20060526 CA831OM

CA EVENT: 19970528 CA110 - RFI Workplan Received

CA EVENT: 19970530 CA120 - RFI Workplan Modification Requested by Agency

CA EVENT: 19980608 CA155 - RFI Supplemental Information Requested by Agency

**CA EVENT:** 20060612 CA834OM

CA EVENT: 19980720 CA260 - CMS Workplan Received

CA EVENT: 19980731 CA270 - CMS Workplan Modification Requested by Agency

**CA EVENT:** 19990826 CA816

CA EVENT: 20000919 CA160 - RFI Supplemental Information Received

CA EVENT: 19980929 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 20000929 CA155 - RFI Supplemental Information Requested by Agency

CA EVENT: 19981001 CA600 - Stabilization Measures Implemented

CA EVENT: 19971028 CA075LO - CA PRIORITIZATION-LOW CA PRIORITY

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 17 **DIST/DIR:** 0.36 NW **ELEVATION:** 5204 **MAP ID:** 75

NAME: LINCOLN PLATING COMPANY REV: 1/11/11

ADDRESS: 777 UMATILLA ID1: COD007073901

DENVER CO 80204 ID2: STATUS: CA

CONTACT: PHONE:

SOURCE: EPA

CA EVENT: 19971028 CA750NO - RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT

MEET DEFINITION

CA EVENT: 19971028 CA725NO - HUMAN EXPOSURES CONTROLLED DETERMINATION-FACILITY DOES

NOT MEET DEFINITION

CA EVENT: 19971028 CA100 - RFI IMPOSITION

CA EVENT: 19971028 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO

STABILIZATION

**CA EVENT:** 19971212 CA811AS

CA EVENT: 19981215 CA650 - STABILIZATION CONSTRUCTION COMPLETED

**CA EVENT:** 19971226 CA814AS

#### **HAZARDOUS WASTE INFORMATION:**

F019 - Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.

D001 - Ignitable waste

D002 - Corrosive waste

D007 - Chromium

D008 - Lead

F003 - The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends contai

F005 - The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before us

F006 - Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

CLEANED UP

**NFRAP SEARCH ID:** 11 **DIST/DIR:** 0.38 NE **ELEVATION:** 5243 MAP ID: 76 NAME: INDUSTRIAL HARD CHROME PLATING CO. REV: 1/26/11 CO0001055235 ADDRESS: 919 NORTH SANTA FE DR ID1: DENVER CO 80204 0801499 ID2: STATUS: NFRAP-N **CONTACT:** PHONE: **SOURCE:** EPA **DESCRIPTION:** THIS IS AN ABANDONED CHROME PLATING SHOP. ON FEB 17, 1995, THE SITE INVESTIGATION WAS INITIATED. INITIAL SAMPLINGS HAVE SHOWN THE CONTAMINATION OF SOIL FROM CHROMIUM AND NICKEL. ACTION/QUALITY AGENCY/RPS START/RAA END PRELIM CLOSE-OUT REP PREPARED EPA Fund-Financed 6/30/1995 ISSUE REQ LTTRS (104e) Federal Enforcement 3/30/1995 Notice Letters Issued Federal Enforcement 8/11/1997 Public Notice Published EPA Fund-Financed 5/5/1995 ARCHIVE SITE EPA In-House 3/14/2006 ADMINISTRATIVE RECORDS EPA Fund-Financed 19-95-3/2/ 4/28/1995 ADMIN RECORD COMPILED FOR A REMEDIAL EVENT Primary COMMUNITY INVOLVEMENT EPA Fund-Financed 19-98-9/9/ 2/18/1999 CONSENT AGREEMENT (ADMINISTRATIVE) Federal Enforcement 9/10/1998 DISCOVERY State, Fund Financed 12/19/1995 LIEN ON PRP PROPERTY Federal Enforcement /1-97-10/7 11/15/1997 NON-NPL PRP SEARCH Federal Enforcement /1-95-3/30 2/7/1996 SEARCH COMPLETE, NO VIABLE PRPS Primary PRELIMINARY ASSESSMENT **EPA Fund-Financed** 12/19/1995 NFRAP: NO FURTHER REMEDIAL ACTION PLANNED Primary REMOVAL EPA Fund-Financed 19-95-3/2/ 6/30/1995 CLEANED UP Primary REMOVAL EPA Fund-Financed /1-97-7/25 10/15/1997

Primary

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID: ELEVATION:** MAP ID: 134 **DIST/DIR:** 0.38 NE 5244 77

**REV:** NAME: H and M INVESTMENTS 04/04/11 **ADDRESS:** 900 SANTA FE 8549 ID1:

DENVER CO 80202 ID2:

**DENVER** STATUS: CLOSED

**CONTACT:** PHONE: **SOURCE:** COSTIS

LUST INFORMATION

**STATUS:** Closed LOG DATE: 5/25/2001

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=8549

**LUST** 

**SEARCH ID:** 112 **DIST/DIR:** 0.39 SE **ELEVATION:** 5241 MAP ID: 78

NAME: 7-ELEVEN 27620 **REV:** 04/04/11 ADDRESS: 303 NORTH SANTA FE DR ID1: 10926 DENVER CO 80223 ID2:

CLOSED **DENVER** STATUS:

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed

LOG DATE: 9/4/2009 7:48:16 AM

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 138 **DIST/DIR:** 0.39 SE **ELEVATION:** 5231 **MAP ID:** 79

 NAME:
 LIPAN GARAGE
 REV:
 04/04/11

 ADDRESS:
 243 LIPAN ST
 ID1:
 1214

DENVER CO 80223 ID2:
STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 3/1/1989

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=1214

LUST

**SEARCH ID:** 152 **DIST/DIR:** 0.40 SW **ELEVATION:** 5209 **MAP ID:** 80

NAME:WASTEWATER MANAGEMENT FACILITYREV:04/04/11ADDRESS:2000 WEST 3RD AVEID1:3635

DENVER CO 80223

DENVER

STATUS: CLOSED

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 4/26/1991

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SWL** 

SEARCH ID: 71 DIST/DIR: 0.41 SW ELEVATION: MAP ID: 81

 NAME:
 KNOWN LANDFILL
 REV:
 12/01/08

 ADDRESS:
 AT 4TH and VALLEJO ST
 ID1:
 131

 DENVER CO
 ID2:
 00070-0000675

 DENVER
 STATUS:
 HISTORIC

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: Denver CO Old Fill Sites

TEMPORARILY CLOSED IN 1960 CONFIDENCE IN THIS INFO: LOW

Fill- DOMESTIC REFUSE: YES CONSTRUCTION DEBRIS: NO

LIQUIDS: NO

HAZARDOUS WASTE: NO INDUSTRIAL WASTE: NO

UNKNOWN: NO

CONFIDENCE IN THIS INFO: LOW

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

 VCP

 SEARCH ID: 154
 DIST/DIR: 0.41 N ELEVATION: 5229
 MAP ID: 82

 NAME:
 10TH AND OSAGE PROPERTIES
 REV:
 03/01/11

 ADDRESS:
 944 OSAGE ST
 ID1:
 080509-2

 944 OSAGE ST
 ID1: 08050

 DENVER CO 80204
 ID2:

 DENVER
 STATUS:

CONTACT: PHONE: SOURCE: CDPHE

COLORADO VOLUNTARY CLEANUP AND REDEVELOPMENT ACT:

APPLICATION TYPE: APPLICATION NUMBER:

APPLICATION TYPE: NAD FILE NUMBER: 080509-2

PARENT PROGRAM: PARENT ID:

PARENT TYPE: PROJECT MANAGER: DATE RECEIVED:

EXTENSION: LENGTH OF EXTENSION-DAYS:

DATE DUE: DECISION:

DATE OF DECISION:

REMEDIATION START DATE:

REMEDIATION END DATE:

REVIEW COST: TAX CREDIT:

RESIDENCES CREATED:

JOBS CREATED:

**CLEANUP ACRES:** 

OTHER ISSUES:

MEDIA AFFECTED1: MEDIA AFFECTED2:

MEDIA AFFECTED3:

LANDUSE RESTRICTION:

RESTRICTION ID:

**COVENANT:** 

LINK: http://emaps.dphe.state.co.us/hmtrackreporter/VCRASingle.aspx?Acrnm=VCRAandSysID=

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

**LUST** 

SEARCH ID: 128 **DIST/DIR:** 0.41 N-**ELEVATION:** 5229 82 MAP ID:

NAME: CITY AND COUNTY OF DENVER PROPERTY **REV:** 04/04/11 ADDRESS: 1001 OSAGE ST

10743 ID1: DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed

LOG DATE: 11/10/2008 11:33:52 AM

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

 SEARCH ID:
 155
 DIST/DIR:
 0.41 N ELEVATION:
 5229
 MAP ID:
 82

 NAME:
 10TH AND OSAGE PROPERTIES II
 REV:
 03/01/11

 ADDRESS:
 1001 OSAGE ST
 ID1:
 081110-1

DENVER CO 80204 ID2:
DENVER STATUS:
PHONE:

COLORADO VOLUNTARY CLEANUP AND REDEVELOPMENT ACT:

APPLICATION TYPE: APPLICATION NUMBER:

**CDPHE** 

APPLICATION TYPE: NAD FILE NUMBER: 081110-1

PARENT PROGRAM:

PARENT ID: PARENT TYPE:

**CONTACT:** 

SOURCE:

PROJECT MANAGER: DATE RECEIVED:

DATE RECEIVE EXTENSION:

LENGTH OF EXTENSION-DAYS:

DATE DUE: DECISION:

DATE OF DECISION:

REMEDIATION START DATE:

REMEDIATION END DATE:

**REVIEW COST:** TAX CREDIT:

RESIDENCES CREATED:

JOBS CREATED:

**CLEANUP ACRES:** 

OTHER ISSUES:

MEDIA AFFECTED1:

**MEDIA AFFECTED2:** 

**MEDIA AFFECTED3:** 

LANDUSE RESTRICTION:

RESTRICTION ID:

**COVENANT:** 

LINK: http://emaps.dphe.state.co.us/hmtrackreporter/VCRASingle.aspx?Acrnm=VCRAandSysID=

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 123 **DIST/DIR:** 0.43 NW **ELEVATION:** 5203 **MAP ID:** 83

 NAME:
 BOYS and GIRLS CLUB OF DENVER
 REV:
 04/04/11

 ADDRESS:
 901 TEJON ST
 ID1:
 1515

901 TEJON ST ID1: 1515 DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 12/4/1996

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=1515

LUST

**SEARCH ID:** 135 **DIST/DIR:** 0.43 NW **ELEVATION:** 5203 **MAP ID:** 84

 NAME:
 HEB S SERVICE
 REV:
 04/04/11

 ADDRESS:
 2214 WEST 8TH AVE
 ID1:
 2403

DENVER CO 80204 ID2:

STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 1/2/1990

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**NPL** 

SEARCH ID: 1 DIST/DIR: 0.44 NW ELEVATION: MAP ID: 85

NAME: DENVER RADIUM SITE REV: 1/14/11

 ADDRESS:
 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955

 DENVER CO 80204
 ID2:
 0800247

 STATUS:
 FINAL

CONTACT: JACK WHYTE PHONE: 3033126707

**SOURCE:** EPA

SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**PARTIALY DELETED DATE:** 11/08/2010 **FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year review EPA Fund-Financed 4/15/2008 9/30/2008

risk/health assessment EPA Fund-Financed 4/12/2005 10/13/2005

- Continued on next page -

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

NPL				
SEARCH ID: 1 DIST/DIR:	0.44 NW	ELEVATION:	MAP ID:	85
NAME: DENVER RADIUM SITE VARIOUS PLACES IN DENVER DENVER CO 80204  CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955 0800247 FINAL 3033126707	
prospective purchaser agreement assessment	Federal Enforcement	11/26/2002	6/3/2005	
forward planning activity/management assistance	EPA Fund-Financed	9/15/2000	9/27/2000	
preparation of cost document package	Federal Enforcement	9/2/2000	10/19/2001	
remedial design/remedial action negotiations	Federal Enforcement	6/15/2000	10/10/2001	
issue request letters (104e)	Federal Enforcement	3/28/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/2/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/1/2000	3/28/2000	
groundwater monitoring (post-record of decision)	Responsible Party Primary	2/28/2000	8/26/2002	
community advisory group	Community Organization	on 1/1/2000	8/16/2006	
preparation of cost document package	Federal Enforcement	11/29/1999	1/25/2000	
combined remedial investigation/feasibility study	EPA Fund-Financed	11/15/1999	6/16/2000	
five-year review	EPA Fund-Financed Primary	6/10/1999	12/21/1999	
preparation of cost document package	Federal Enforcement	10/21/1998	12/15/1998	
five-year review	EPA Fund-Financed Primary	1/15/1998	9/30/2003	
national priorities list responsible party search	Federal Enforcement Primary	3/8/1995	3/30/1995	
preparation of cost document package	Federal Enforcement Primary	2/26/1994	7/11/1994	
preparation of cost document package	Federal Enforcement Primary	12/31/1993	2/25/1994	
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993	
		- Ce	ontinued on next page -	

	]	NPL	
SEARCH ID: 1 DIST/DIR:	0.44 NW	ELEVATION:	<b>MAP ID:</b> 85
NAME: DENVER RADIUM SITE ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204  CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955 0800247 FINAL 3033126707
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993
five-year review	EPA Fund-Financed Primary	4/5/1993	9/12/1994
potentially responsible party remedial action	Responsible Party Primary	3/31/1993 Other Complet	6/16/2000 ion Anomaly
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10/26/1992	6/29/1994
potentially responsible party remedial design	Responsible Party Alternate	6/7/1992	3/31/1993
potentially responsible party remedial design	Responsible Party Primary	6/7/1992	6/27/1996
remedial design/remedial action negotiations	Federal Enforcement Primary	1/28/1992	8/21/1992
preparation of cost document package	Federal Enforcement Primary	12/30/1991	2/11/1994
state support agency cooperative agreement	State, Fund Financed Primary	7/25/1991	9/25/2000
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/26/1991	7/17/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/26/1991	9/9/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/11/1991	8/8/1991
national priorities list responsible party search	Federal Enforcement	5/24/1991	5/24/1991
preparation of cost document package	Federal Enforcement Primary	3/30/1991	9/30/1991
national priorities list responsible party search	Federal Enforcement Primary	1/21/1991	7/23/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/9/1991	6/21/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/9/1991	5/29/1992
state support agency cooperative agreement	Federal Enforcement	8/6/1990	9/29/1992
		- Co	ntinued on next page -

	1	NPL		
SEARCH ID: 1 DIST/DIR:	0.44 NW	ELEVATION:	N	1AP ID: 85
NAME: DENVER RADIUM SITE ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204  CONTACT: JACK WHYTE SOURCE: EPA		ID1: C0 ID2: 08 STATUS: FI	14/11 DD980716955 00247 NAL 33126707	
	Primary			
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	7/1/1988	9/12/1988	
state support agency cooperative agreement	State, Fund Financed Primary	2/12/1988	7/20/1989	
potentially responsible party remedial design	Responsible Party Primary	12/11/1987	3/1/1990	
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	8/3/1987	3/31/1988	
national priorities list responsible party search Gearch Complete, Viable PRPs	Federal Enforcement	7/22/1987	8/25/1987	
remedial investigation/feasibility study workplan approva	al by hq Primary	Federal Enforceme	nt 4/30/1987	6/29/1987
national priorities list responsible party search Gearch Complete, Viable PRPs	Federal Enforcement	3/24/1987	6/2/1987	
national priorities list responsible party search	Federal Enforcement Primary	9/12/1986	3/1/1990	
national priorities list responsible party search	Federal Enforcement	5/8/1986	1/16/1987	
state support agency cooperative agreement	State, Fund Financed Primary	4/10/1986	4/11/1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/16/1985	5/8/1986	
national priorities list responsible party search Gearch Complete, Viable PRPs	Federal Enforcement	1/16/1985	1/16/1987	
national priorities list responsible party search Gearch Complete, Viable PRPs	Federal Enforcement	11/26/1984	1/16/1985	
remedial investigation/feasibility study workplan approve	al by hq Primary	EPA Fund-Finance	d 1/3/1984	1/3/1984
state support agency cooperative agreement	State, Fund Financed Primary	8/19/1983	11/14/2000	
remedial investigation/feasibility study workplan approve	al by hq Primary	State, Fund Finance	ed 12/31/1981	12/31/1981
notice letters issued	EPA Fund-Financed		8/10/1982	
		Ø	nued on next	****

	]	NPL	
SEARCH ID: 1 DIST/DIR:	0.44 NW	ELEVATION:	<b>MAP ID:</b> 85
NAME: DENVER RADIUM SITE ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204  CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955 0800247 FINAL 3033126707
notice letters issued	Federal Enforcement		8/10/1982
hazard ranking system package	EPA Fund-Financed		12/1/1982
proposal to national priorities list	EPA Fund-Financed		12/30/1982
final listing on national priorities list	EPA Fund-Financed		9/8/1983
notice letters issued	EPA Fund-Financed		12/28/1984
issue request letters (104e)	Federal Enforcement		12/28/1984
notice letters issued	Federal Enforcement		12/28/1984
notice letters issued	EPA Fund-Financed		5/22/1987
issue request letters (104e)	Federal Enforcement		5/22/1987
notice letters issued	Federal Enforcement		5/22/1987
issue request letters (104e)	Federal Enforcement		6/3/1987
special notice issued	Federal Enforcement		7/1/1987
issue request letters (104e)	Federal Enforcement		7/23/1987
notice letters issued	EPA Fund-Financed		10/29/1987
notice letters issued	Federal Enforcement		10/29/1987
issue request letters (104e)	Federal Enforcement		5/13/1988
administrative order on consent	Federal Enforcement Primary		7/22/1988
public notice published	Coast Guard		9/20/1989
	- More Det	tails Exist For This Si	ite; Max Page Limit Reached -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

LUST

**SEARCH ID:** 119 **DIST/DIR:** 0.44 -E **ELEVATION:** 5252 **MAP ID:** 86

\_\_\_\_\_

 NAME:
 BAKER MIDDLE SCHOOL
 REV:
 04/04/11

 ADDRESS:
 574 WEST 6TH AVE
 ID1:
 5175

DENVER CO 80204 ID2: STATUS: CLOSED

CONTACT: PHONE:

LUST INFORMATION

COSTIS

SOURCE:

**STATUS:** Closed **LOG DATE:** 1/24/1990

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=5175

LUST

**SEARCH ID:** 117 **DIST/DIR:** 0.48 NE **ELEVATION:** 5238 **MAP ID:** 87

 NAME:
 AMICK MOVING AND STORAGE
 REV:
 04/04/11

 ADDRESS:
 1029 SANTA FE DR
 ID1:
 3116

 DENVER CO 80204
 ID2:

DENVER CO 80204

DENVER

STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

**LUST INFORMATION** 

STATUS: Closed LOG DATE: 5/12/1993

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=3116

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**LUST** 

SEARCH ID: 118 **ELEVATION:** 5238 MAP ID: **DIST/DIR:** 0.48 NE 87

**REV:** NAME: AMICK MOVING AND STORAGE 04/04/11 ADDRESS: 1029 SANTA FE DR

9471 ID1: DENVER CO 80204 ID2:

**DENVER** STATUS: CLOSED

**CONTACT:** PHONE: **SOURCE:** COSTIS

LUST INFORMATION

**STATUS:** Closed

LOG DATE: 4/7/2004 9:37:10 AM

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=9471

**LUST** 

**SEARCH ID:** 153 **DIST/DIR:** 0.48 SW **ELEVATION:** 5204 MAP ID: 88

NAME: WYLACO SUPPLY CO **REV:** 04/04/11 ADDRESS: 295 VALLEJO ID1: 1375 DENVER CO 80223 ID2:

CLOSED **DENVER** STATUS:

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 8/27/1991

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=1375

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**NPL** 

SEARCH ID: 8 DIST/DIR: 0.50 NW ELEVATION: MAP ID: 89

NAME: DENVER RADIUM SITE-OU 9A REV: 1/14/11

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955H

 DENVER CO 80204
 ID2:
 0800247

 DENVER
 STATUS:
 FINAL

 CONTACT:
 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

**ACTIVITIES:** 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

**CONSTRUCTION COMPLETED DATE:** 09/27/2006

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

**PARTIALY DELETED DATE:** 11/08/2010 **FINAL DATE:** 09/08/1983

#### **CERCLIS DETAILS**

ACTION/QUALITY AGENCY/RPS START/RAA END

five-year review EPA Fund-Financed 4/15/2008 9/30/2008

risk/health assessment EPA Fund-Financed 4/12/2005 10/13/2005

	I	NPL		
SEARCH ID: 8 DIST/DIR:	0.50 NW	ELEVATION:	MAP ID:	89
NAME: DENVER RADIUM SITE-OU 9A ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955H 0800247 FINAL 3033126707	
prospective purchaser agreement assessment	Federal Enforcement	11/26/2002	6/3/2005	
forward planning activity/management assistance	EPA Fund-Financed	9/15/2000	9/27/2000	
preparation of cost document package	Federal Enforcement	9/2/2000	10/19/2001	
remedial design/remedial action negotiations	Federal Enforcement	6/15/2000	10/10/2001	
issue request letters (104e)	Federal Enforcement	3/28/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/2/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/1/2000	3/28/2000	
groundwater monitoring (post-record of decision)	Responsible Party Primary	2/28/2000	8/26/2002	
community advisory group	Community Organizat	ion 1/1/2000	8/16/2006	
preparation of cost document package	Federal Enforcement	11/29/1999	1/25/2000	
combined remedial investigation/feasibility study	EPA Fund-Financed	11/15/1999	6/16/2000	
five-year review	EPA Fund-Financed Primary	6/10/1999	12/21/1999	
preparation of cost document package	Federal Enforcement	10/21/1998	12/15/1998	
five-year review	EPA Fund-Financed Primary	1/15/1998	9/30/2003	
national priorities list responsible party search	Federal Enforcement Primary	3/8/1995	3/30/1995	
preparation of cost document package	Federal Enforcement Primary	2/26/1994	7/11/1994	
preparation of cost document package	Federal Enforcement Primary	12/31/1993	2/25/1994	
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993	
		- Co	ntinued on next page -	

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

6TH AVENUE BRIDGE JOB: 11137801.3000

	]	NPL	
SEARCH ID: 8 DIST/DIR:	0.50 NW	ELEVATION:	<b>MAP ID:</b> 89
NAME: DENVER RADIUM SITE-OU 9A ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955H 0800247 FINAL 3033126707
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993
five-year review	EPA Fund-Financed Primary	4/5/1993	9/12/1994
potentially responsible party remedial action	Responsible Party Primary	3/31/1993 Other Complet	6/16/2000 ion Anomaly
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10/26/1992	6/29/1994
potentially responsible party remedial design	Responsible Party Alternate	6/7/1992	3/31/1993
potentially responsible party remedial design	Responsible Party Primary	6/7/1992	6/27/1996
remedial design/remedial action negotiations	Federal Enforcement Primary	1/28/1992	8/21/1992
preparation of cost document package	Federal Enforcement Primary	12/30/1991	2/11/1994
state support agency cooperative agreement	State, Fund Financed Primary	7/25/1991	9/25/2000
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/26/1991	7/17/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/26/1991	9/9/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/11/1991	8/8/1991
national priorities list responsible party search	Federal Enforcement	5/24/1991	5/24/1991
preparation of cost document package	Federal Enforcement Primary	3/30/1991	9/30/1991
national priorities list responsible party search	Federal Enforcement Primary	1/21/1991	7/23/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/9/1991	6/21/1991
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/9/1991	5/29/1992
state support agency cooperative agreement	Federal Enforcement	8/6/1990	9/29/1992
		- Co	ntinued on next page -

	1	NPL		
SEARCH ID: 8 DIST/DIR:	0.50 NW	ELEVATION:	M	<b>AP ID:</b> 89
DENVER RADIUM SITE-OU 9A ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE OURCE: EPA		ID1: C0 ID2: 08 STATUS: FI	14/11 DD980716955H 600247 NAL 033126707	
	Primary			
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	7/1/1988	9/12/1988	
state support agency cooperative agreement	State, Fund Financed Primary	2/12/1988	7/20/1989	
potentially responsible party remedial design	Responsible Party Primary	12/11/1987	3/1/1990	
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	8/3/1987	3/31/1988	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	7/22/1987	8/25/1987	
remedial investigation/feasibility study workplan approv	al by hq Primary	Federal Enforceme	nt 4/30/1987	6/29/1987
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	3/24/1987	6/2/1987	
national priorities list responsible party search	Federal Enforcement Primary	9/12/1986	3/1/1990	
national priorities list responsible party search	Federal Enforcement	5/8/1986	1/16/1987	
state support agency cooperative agreement	State, Fund Financed Primary	4/10/1986	4/11/1991	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	1/16/1985	5/8/1986	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	1/16/1985	1/16/1987	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	11/26/1984	1/16/1985	
remedial investigation/feasibility study workplan approv	al by hq Primary	EPA Fund-Finance	d 1/3/1984	1/3/1984
state support agency cooperative agreement	State, Fund Financed Primary	8/19/1983	11/14/2000	
remedial investigation/feasibility study workplan approv	al by hq Primary	State, Fund Finance	eed 12/31/1981	12/31/1981
notice letters issued	EPA Fund-Financed		8/10/1982	
			nued on next p	

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

6TH AVENUE BRIDGE JOB: 11137801.3000

		NPL	
SEARCH ID: 8 DIST/DIR:	0.50 NW	ELEVATION:	<b>MAP ID:</b> 89
NAME: DENVER RADIUM SITE-OU 9A ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955H 0800247 FINAL 3033126707
notice letters issued	Federal Enforcement		8/10/1982
hazard ranking system package	EPA Fund-Financed		12/1/1982
proposal to national priorities list	EPA Fund-Financed		12/30/1982
final listing on national priorities list	EPA Fund-Financed		9/8/1983
notice letters issued	EPA Fund-Financed		12/28/1984
issue request letters (104e)	Federal Enforcement		12/28/1984
notice letters issued	Federal Enforcement		12/28/1984
notice letters issued	Federal Enforcement		5/22/1987
issue request letters (104e)	Federal Enforcement		5/22/1987
notice letters issued	EPA Fund-Financed		5/22/1987
issue request letters (104e)	Federal Enforcement		6/3/1987
special notice issued	Federal Enforcement		7/1/1987
issue request letters (104e)	Federal Enforcement		7/23/1987
notice letters issued	Federal Enforcement		10/29/1987
notice letters issued	EPA Fund-Financed		10/29/1987
issue request letters (104e)	Federal Enforcement		5/13/1988
administrative order on consent	Federal Enforcement Primary		7/22/1988
public notice published	Coast Guard		9/20/1989
	- More Det	tails Exist For This Si	ite; Max Page Limit Reached -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**LUST** 

**SEARCH ID:** 115 **DIST/DIR:** 0.50 NE **ELEVATION:** 5236 **MAP ID:** 90

 NAME:
 ADCO GENERAL CORP
 REV:
 04/04/11

 ADDRESS:
 1080 KALAMATH
 ID1:
 263

DENVER CO 80204 ID2:

DENVER STATUS: CLOSED

CONTACT: PHONE: SOURCE: COSTIS

LUST INFORMATION

STATUS: Closed LOG DATE: 10/8/1993

LINK: http://costis.cdle.state.co.us/event.asp?h\_id=263

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 16 **DIST/DIR:** 0.51 NW **ELEVATION:** 5201 **MAP ID:** 91

NAME: KATZSON BROTHERS INC REV: 1/11/11

ADDRESS: 960 VALLEJO ST ID1: COD031992225

DENVER CO 80204 ID2:

STATUS: CA

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD: ----CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:

**CORRECTIVE ACTION WORKLOAD:** Y - CORRECTIVE ACTION WORKLOAD

**GENERATOR STATUS:** CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS:

GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

42299 - OTHER MISCELLANEOUS NONDURABLE GOODS WHOLESALERS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

CORRECTIVE ACTION INFORMATION

CA EVENT: 19930111 CA110 - RFI Workplan Received

CA EVENT: 19960123 CA110 - RFI Workplan Received

CA EVENT: 19930127 CA120 - RFI Workplan Modification Requested by Agency

CA EVENT: 19930311 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 19940414 CA195 - RFI Progress Reports Received

CA EVENT: 19930515 CA180 - RFI Implementation Begun

CA EVENT: 19940609 CA195 - RFI Progress Reports Received

CA EVENT: 19930617 CA190 - RFI Report Received

CA EVENT: 19930617 CA110 - RFI Workplan Received

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 16 **DIST/DIR:** 0.51 NW **ELEVATION:** 5201 **MAP ID:** 91

NAME: KATZSON BROTHERS INC REV: 1/11/11

ADDRESS: 960 VALLEJO ST ID1: COD031992225

DENVER CO 80204 ID2:

ONTACT: STATUS: CA
PHONE:

CONTACT: SOURCE: EPA

CA EVENT: 19930618 CA120 - RFI Workplan Modification Requested by Agency

CA EVENT: 19930618 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 19950801 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO

STABILIZATION

CA EVENT: 19950801 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES,

APPLICABLE AS OF THIS DATE

CA EVENT: 19940926 CA195 - RFI Progress Reports Received

CA EVENT: 19921103 CA006AC - Area of Concern

CA EVENT: 19921103 CA060 - NOTICE OF CONTAMINATION

CA EVENT: 19921207 CA070YE - DETERMINATION OF NEED FOR A RFI-RFI IS NECESSARY

**CA EVENT:** 19921207 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

CA EVENT: 19921207 CA100 - RFI IMPOSITION

#### **HAZARDOUS WASTE INFORMATION:**

U210 - Ethene, tetrachloro- (OR) Tetrachloroethylene

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 15 **DIST/DIR:** 0.54 NW **ELEVATION:** 5200 **MAP ID:** 92

NAME: GandK SERVICE INCORPORATED REV: 1/11/11

ADDRESS: 999 VALLEJO ST ID1: COD983789447

DENVER CO 80204 ID2:

STATUS: CA

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD: ----CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:

CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD

GENERATOR STATUS:

NAIC INFORMATION

**ENFORCEMENT INFORMATION:** 

**VIOLATION INFORMATION:** 

CORRECTIVE ACTION INFORMATION

CA EVENT: 19920302 CA190 - RFI Report Received

CA EVENT: 20030304 CA200 - RFI APPROVED

CA EVENT: 20030304 CA250 - CMS Imposition

CA EVENT: 19930311 CA120 - RFI Workplan Modification Requested by Agency

CA EVENT: 19930513 CA110 - RFI Workplan Received

CA EVENT: 19930513 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 19930709 CA180 - RFI Implementation Begun

CA EVENT: 19900717 CA110 - RFI Workplan Received

CA EVENT: 19900717 CA006AC - Area of Concern

CA EVENT: 19900717 CA060 - NOTICE OF CONTAMINATION

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 15 **DIST/DIR:** 0.54 NW **ELEVATION:** 5200 **MAP ID:** 92

NAME: GandK SERVICE INCORPORATED REV: 1/11/11

ADDRESS: 999 VALLEJO ST ID1: COD983789447

DENVER CO 80204 **ID2:** 

STATUS: CA
CONTACT: PHONE:

CONTACT: SOURCE: EPA

**CA EVENT:** 19950801 CA225IN - STABILIZATION MEASURES EVALUATION-FURTHER INVESTIGATION

NECESSARY

CA EVENT: 19950801 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES,

APPLICABLE AS OF THIS DATE

CA EVENT: 19930803 CA195 - RFI Progress Reports Received

CA EVENT: 19950811 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

CA EVENT: 19900828 CA100 - RFI IMPOSITION

CA EVENT: 19900828 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 20061016 CA190 - RFI Report Received

CA EVENT: 20061016 CA260 - CMS Workplan Received

CA EVENT: 19921027 CA195 - RFI Progress Reports Received

CA EVENT: 20021121 CA190 - RFI Report Received

CA EVENT: 20061130 CA200 - RFI APPROVED

CA EVENT: 20061130 CA270 - CMS Workplan Modification Requested by Agency

**Target Property:** 6TH AVENUE BRIDGE JOB: 11137801.3000 DENVER CO 80204

**NPL** 

SEARCH ID: 4 DIST/DIR: 0.57 S- ELEVATION: MAP ID: 93

NAME: DENVER RADIUM SITE 97 REV: 10/08/08

 ADDRESS:
 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955N

 DENVER CO 80204
 ID2:
 0800247N

 DENVER CO 80204
 ID2:
 0800247N

 DENVER
 STATUS:
 FINAL

 CONTACT:
 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	04-15-2008	09-30-2008
risk/health assessment	EPA Fund-Financed	04-12-2005	10-13-2005
prospective purchaser agreement assessment	Federal Enforcement	11-26-2002	06-03-2005

	1	NPL		
SEARCH ID: 4 DIST/DIR:	0.57 S-	ELEVATION:	MAP ID:	93
NAME: DENVER RADIUM SITE 97 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955N 0800247N FINAL 3033126707	
forward planning activity/management assistance	EPA Fund-Financed	09-15-2000	09-27-2000	
preparation of cost document package	Federal Enforcement	09-02-2000	10-19-2001	
remedial design/remedial action negotiations	Federal Enforcement	06-15-2000	10-10-2001	
issue request letters (104e)	Federal Enforcement	03-28-2000	03-28-2000	
national priorities list responsible party search	Federal Enforcement Primary	03-02-2000	03-28-2000	
national priorities list responsible party search	Federal Enforcement Primary	03-01-2000	03-28-2000	
groundwater monitoring (post-record of decision)	Responsible Party Primary	02-28-2000	08-26-2002	
community advisory group	Community Organizat	ion 01-01-2000	08-16-2006	
preparation of cost document package	Federal Enforcement	11-29-1999	01-25-2000	
combined remedial investigation/feasibility study	EPA Fund-Financed	11-15-1999	06-16-2000	
five-year review	EPA Fund-Financed Primary	06-10-1999	12-21-1999	
preparation of cost document package	Federal Enforcement	10-21-1998	12-15-1998	
five-year review	EPA Fund-Financed Primary	01-15-1998	09-30-2003	
national priorities list responsible party search	Federal Enforcement Primary	03-08-1995	03-30-1995	
preparation of cost document package	Federal Enforcement Primary	02-26-1994	07-11-1994	
preparation of cost document package	Federal Enforcement Primary	12-31-1993	02-25-1994	
potentially responsible party removal Cleaned up	Responsible Party Primary	06-29-1993	08-27-1993	
		- Co	ontinued on next page -	

			I	NPL	
SEARCH II	<b>D:</b> 4	DIST/DIR:	0.57 S-	ELEVATION:	<b>MAP ID:</b> 93
ADDRESS: I	DENVER CO 80 DENVER	CES IN DENVER		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955N 0800247N FINAL 3033126707
five-year review	w		EPA Fund-Financed Primary	06-01-1993	09-30-1993
five-year review	w		EPA Fund-Financed Primary	06-01-1993	09-30-1993
five-year review	w		EPA Fund-Financed Primary	04-05-1993	09-12-1994
potentially resp	oonsible party re	emedial action	Responsible Party Primary	03-31-1993 Other Comple	06-16-2000 etion Anomaly
	oonsible party re for further assess		Responsible Party Primary	10-26-1992	06-29-1994
potentially resp	oonsible party re	emedial design	Responsible Party Alternate	06-07-1992	03-31-1993
potentially resp	onsible party re	emedial design	Responsible Party Primary	06-07-1992	06-27-1996
remedial design	n/remedial action	n negotiations	Federal Enforcement Primary	01-28-1992	08-21-1992
preparation of	cost document p	oackage	Federal Enforcement Primary	12-30-1991	02-11-1994
state support ag	gency cooperativ	ve agreement	State, Fund Financed Primary	07-25-1991	09-25-2000
national priorit Search Complete	ies list responsib e, Viable PRPs	ole party search	Federal Enforcement	06-26-1991	07-17-1991
national priorit Search Complete	ies list responsib e, Viable PRPs	ole party search	Federal Enforcement	06-26-1991	09-09-1991
national priorit Search Complete	ies list responsib e, Viable PRPs	ble party search	Federal Enforcement	06-11-1991	08-08-1991
national priorit	ies list responsib	ole party search	Federal Enforcement	05-24-1991	05-24-1991
preparation of o	cost document p	oackage	Federal Enforcement Primary	03-30-1991	09-30-1991
national priorit	ies list responsib	ble party search	Federal Enforcement Primary	01-21-1991	07-23-1991
national priorit	ies list responsib e, Viable PRPs	ble party search	Federal Enforcement	01-09-1991	06-21-1991
national priorit	ies list responsib e, Viable PRPs	ble party search	Federal Enforcement	01-09-1991	05-29-1992
				- C	ontinued on next page -

	]	NPL		
SEARCH ID: 4 DIST/DIR:	0.57 S-	ELEVATION:	N	<b>1AP ID:</b> 93
NAME: DENVER RADIUM SITE 97 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		ID1: (C) ID2: (C) STATUS: H	10/08/08 COD980716955N 0800247N FINAL 3033126707	
state support agency cooperative agreement	Federal Enforcement Primary	08-06-1990	09-29-1992	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	07-01-1988	09-12-1988	
state support agency cooperative agreement	State, Fund Financed Primary	02-12-1988	07-20-1989	
potentially responsible party remedial design	Responsible Party Primary	12-11-1987	03-01-1990	
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	08-03-1987	03-31-1988	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	07-22-1987	08-25-1987	
remedial investigation/feasibility study workplan approve	val by hq Primary	Federal Enforcem	nent 04-30-1987	06-29-1987
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	03-24-1987	06-02-1987	
national priorities list responsible party search	Federal Enforcement Primary	09-12-1986	03-01-1990	
national priorities list responsible party search	Federal Enforcement	05-08-1986	01-16-1987	
state support agency cooperative agreement	State, Fund Financed Primary	04-10-1986	04-11-1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-16-1985	05-08-1986	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	01-16-1985	01-16-1987	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	11-26-1984	01-16-1985	
remedial investigation/feasibility study workplan approve	val by hq Primary	EPA Fund-Financ	ced 01-03-1984	01-03-1984
state support agency cooperative agreement	State, Fund Financed Primary	08-19-1983	11-14-2000	
remedial investigation/feasibility study workplan approve	val by hq Primary	State, Fund Finan	iced 12-31-1981	12-31-1981
notice letters issued	Federal Enforcement		08-10-1982	
		- Cont	tinued on next	page -

		NPL	
SEARCH ID: 4 DIST/DIR:	0.57 S-	ELEVATION:	<b>MAP ID:</b> 93
NAME: DENVER RADIUM SITE 97 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	10/08/08 COD980716955N 0800247N FINAL 3033126707
notice letters issued	EPA Fund-Financed		08-10-1982
hazard ranking system package	EPA Fund-Financed		12-01-1982
proposal to national priorities list	EPA Fund-Financed		12-30-1982
final listing on national priorities list	EPA Fund-Financed		09-08-1983
notice letters issued	EPA Fund-Financed		12-28-1984
issue request letters (104e)	Federal Enforcement		12-28-1984
notice letters issued	Federal Enforcement		12-28-1984
issue request letters (104e)	Federal Enforcement		05-22-1987
notice letters issued	Federal Enforcement		05-22-1987
notice letters issued	EPA Fund-Financed		05-22-1987
issue request letters (104e)	Federal Enforcement		06-03-1987
special notice issued	Federal Enforcement		07-01-1987
issue request letters (104e)	Federal Enforcement		07-23-1987
notice letters issued	Federal Enforcement		10-29-1987
notice letters issued	EPA Fund-Financed		10-29-1987
issue request letters (104e)	Federal Enforcement		05-13-1988
administrative order on consent	Federal Enforcement Primary		07-22-1988
	- More Del	tails Exist For This S	ite; Max Page Limit Reached -

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000 DENVER CO 80204

**NPL** 

SEARCH ID: 7 **DIST/DIR:** 0.62 NW **ELEVATION:** MAP ID: 94

NAME: DENVER RADIUM SITE-OU 7C REV: 1/14/11

VARIOUS PLACES IN DENVER COD980716955F ADDRESS: ID1:

DENVER CO 80204 0800247 ID2: DENVER STATUS: **FINAL CONTACT: JACK WHYTE** PHONE: 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

**SITE DISCOVERY BY:** DISCOVERY DATE: **EPA** 03-01-79 SITE PROPOSED BY: EPA PROPOSED DATE: 10-23-81 FINAL LIST BY: 09-08-83 **EPA** FINAL LIST DATE:

**ACTIVITIES:** 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

**CONTAMINANTS:** RADIUM, THORIUM, URANIUM, ARSENIC, LEAD, RADON GAS

SOURCE OF CONTAMINATION:

SOILS.DEBRIS CONTAMINATED:

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**PARTIALY DELETED DATE:** 11/08/2010 09/08/1983 FINAL DATE:

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	4/15/2008	9/30/2008

**EPA Fund-Financed** 4/12/2005 10/13/2005 risk/health assessment

	1	NPL		
SEARCH ID: 7 DIST/DIR:	0.62 NW	ELEVATION:	MAP ID:	94
NAME: DENVER RADIUM SITE-OU 7C ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955F 0800247 FINAL 3033126707	
prospective purchaser agreement assessment	Federal Enforcement	11/26/2002	6/3/2005	
forward planning activity/management assistance	EPA Fund-Financed	9/15/2000	9/27/2000	
preparation of cost document package	Federal Enforcement	9/2/2000	10/19/2001	
remedial design/remedial action negotiations	Federal Enforcement	6/15/2000	10/10/2001	
issue request letters (104e)	Federal Enforcement	3/28/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/2/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/1/2000	3/28/2000	
groundwater monitoring (post-record of decision)	Responsible Party Primary	2/28/2000	8/26/2002	
community advisory group	Community Organizat	ion 1/1/2000	8/16/2006	
preparation of cost document package	Federal Enforcement	11/29/1999	1/25/2000	
combined remedial investigation/feasibility study	EPA Fund-Financed	11/15/1999	6/16/2000	
five-year review	EPA Fund-Financed Primary	6/10/1999	12/21/1999	
preparation of cost document package	Federal Enforcement	10/21/1998	12/15/1998	
five-year review	EPA Fund-Financed Primary	1/15/1998	9/30/2003	
national priorities list responsible party search	Federal Enforcement Primary	3/8/1995	3/30/1995	
preparation of cost document package	Federal Enforcement Primary	2/26/1994	7/11/1994	
preparation of cost document package	Federal Enforcement Primary	12/31/1993	2/25/1994	
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993	
		- Co	ntinued on next page -	

		I	NPL		
SEARCH ID: 7	DIST/DIR:	0.62 NW	ELEVATION:	MAP ID:	94
ADDRESS: VARIO			REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955F 0800247 FINAL 3033126707	
five-year review		EPA Fund-Financed Primary	6/1/1993	9/30/1993	
five-year review		EPA Fund-Financed Primary	4/5/1993	9/12/1994	
potentially responsible	party remedial action	Responsible Party Primary	3/31/1993 Other Complet	6/16/2000 cion Anomaly	
potentially responsible Higher priority for furth		Responsible Party Primary	10/26/1992	6/29/1994	
potentially responsible	party remedial design	Responsible Party Alternate	6/7/1992	3/31/1993	
potentially responsible	party remedial design	Responsible Party Primary	6/7/1992	6/27/1996	
remedial design/remed	ial action negotiations	Federal Enforcement Primary	1/28/1992	8/21/1992	
preparation of cost doc	rument package	Federal Enforcement Primary	12/30/1991	2/11/1994	
state support agency co	poperative agreement	State, Fund Financed Primary	7/25/1991	9/25/2000	
national priorities list r Search Complete, Viabl	esponsible party search e PRPs	Federal Enforcement	6/26/1991	7/17/1991	
national priorities list r Search Complete, Viabl	esponsible party search e PRPs	Federal Enforcement	6/26/1991	9/9/1991	
national priorities list r Search Complete, Viabl	esponsible party search e PRPs	Federal Enforcement	6/11/1991	8/8/1991	
national priorities list r	esponsible party search	Federal Enforcement	5/24/1991	5/24/1991	
preparation of cost doc	ument package	Federal Enforcement Primary	3/30/1991	9/30/1991	
national priorities list r	esponsible party search	Federal Enforcement Primary	1/21/1991	7/23/1991	
national priorities list r Search Complete, Viabl	esponsible party search e PRPs	Federal Enforcement	1/9/1991	6/21/1991	
national priorities list r Search Complete, Viabl	esponsible party search e PRPs	Federal Enforcement	1/9/1991	5/29/1992	
state support agency co	poperative agreement	Federal Enforcement	8/6/1990	9/29/1992	
			- Ca	ontinued on next page -	

	1	NPL		
SEARCH ID: 7 DIST/DIR:	0.62 NW	ELEVATION:	M	<b>AP ID:</b> 94
IAME: DENVER RADIUM SITE-OU 7C LDDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE OURCE: EPA		ID1: C0 ID2: 08 STATUS: FI	14/11 OD980716955F 300247 NAL 033126707	
	Primary			
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	7/1/1988	9/12/1988	
state support agency cooperative agreement	State, Fund Financed Primary	2/12/1988	7/20/1989	
potentially responsible party remedial design	Responsible Party Primary	12/11/1987	3/1/1990	
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	8/3/1987	3/31/1988	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	7/22/1987	8/25/1987	
remedial investigation/feasibility study workplan approv	al by hq Primary	Federal Enforceme	nt 4/30/1987	6/29/1987
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	3/24/1987	6/2/1987	
national priorities list responsible party search	Federal Enforcement Primary	9/12/1986	3/1/1990	
national priorities list responsible party search	Federal Enforcement	5/8/1986	1/16/1987	
state support agency cooperative agreement	State, Fund Financed Primary	4/10/1986	4/11/1991	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	1/16/1985	5/8/1986	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	1/16/1985	1/16/1987	
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	11/26/1984	1/16/1985	
remedial investigation/feasibility study workplan approv	al by hq Primary	EPA Fund-Finance	ed 1/3/1984	1/3/1984
state support agency cooperative agreement	State, Fund Financed Primary	8/19/1983	11/14/2000	
remedial investigation/feasibility study workplan approv	al by hq Primary	State, Fund Finance	ced 12/31/1981	12/31/1981
notice letters issued	EPA Fund-Financed		8/10/1982	
		<b>a</b>	nued on next p	

NPL							
SEARCH ID: 7 DIST/DIR:	0.62 NW	ELEVATION:	<b>MAP ID:</b> 94				
NAME: DENVER RADIUM SITE-OU 7C VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955F 0800247 FINAL 3033126707				
notice letters issued	Federal Enforcement		8/10/1982				
hazard ranking system package	EPA Fund-Financed		12/1/1982				
proposal to national priorities list	EPA Fund-Financed		12/30/1982				
final listing on national priorities list	EPA Fund-Financed		9/8/1983				
notice letters issued	EPA Fund-Financed		12/28/1984				
notice letters issued	Federal Enforcement		12/28/1984				
issue request letters (104e)	Federal Enforcement		12/28/1984				
issue request letters (104e)	Federal Enforcement		5/22/1987				
notice letters issued	EPA Fund-Financed		5/22/1987				
notice letters issued	Federal Enforcement		5/22/1987				
issue request letters (104e)	Federal Enforcement		6/3/1987				
special notice issued	Federal Enforcement		7/1/1987				
issue request letters (104e)	Federal Enforcement		7/23/1987				
notice letters issued	Federal Enforcement		10/29/1987				
notice letters issued	EPA Fund-Financed		10/29/1987				
issue request letters (104e)	Federal Enforcement		5/13/1988				
administrative order on consent	Federal Enforcement Primary	7/22/1988					
public notice published	Coast Guard		9/20/1989				
	- More De	tails Exist For This S	Site; Max Page Limit Reached -				

**Target Property:** 6TH AVENUE BRIDGE JOB: 11137801.3000 DENVER CO 80204

**NPL** 

SEARCH ID: 6 DIST/DIR: 0.70 NW ELEVATION: MAP ID: 95

NAME: DENVER RADIUM SITE-OU 7B REV: 1/14/11

ADDRESS: VARIOUS PLACES IN DENVER ID1: COD980716955E

 DENVER CO 80204
 ID2:
 0800247

 DENVER
 STATUS:
 FINAL

 CONTACT:
 JACK WHYTE
 PHONE:
 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**PARTIALY DELETED DATE:** 11/08/2010 **FINAL DATE:** 09/08/1983

#### **CERCLIS DETAILS**

ACTION/QUALITY AGENCY/RPS START/RAA END
five-year review EPA Fund-Financed 4/15/2008 9/30/2008

risk/health assessment EPA Fund-Financed 4/12/2005 10/13/2005

	N	IPL		
SEARCH ID: 6 DIST/DIR:	0.70 NW	ELEVATION:	MAP ID:	95
NAME: DENVER RADIUM SITE-OU 7B ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955E 0800247 FINAL 3033126707	
prospective purchaser agreement assessment	Federal Enforcement	11/26/2002	6/3/2005	
forward planning activity/management assistance	EPA Fund-Financed	9/15/2000	9/27/2000	
preparation of cost document package	Federal Enforcement	9/2/2000	10/19/2001	
remedial design/remedial action negotiations	Federal Enforcement	6/15/2000	10/10/2001	
issue request letters (104e)	Federal Enforcement	3/28/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/2/2000	3/28/2000	
national priorities list responsible party search	Federal Enforcement Primary	3/1/2000	3/28/2000	
groundwater monitoring (post-record of decision)	Responsible Party Primary	2/28/2000	8/26/2002	
community advisory group	Community Organization	on 1/1/2000	8/16/2006	
preparation of cost document package	Federal Enforcement	11/29/1999	1/25/2000	
combined remedial investigation/feasibility study	EPA Fund-Financed	11/15/1999	6/16/2000	
five-year review	EPA Fund-Financed Primary	6/10/1999	12/21/1999	
preparation of cost document package	Federal Enforcement	10/21/1998	12/15/1998	
five-year review	EPA Fund-Financed Primary	1/15/1998	9/30/2003	
national priorities list responsible party search	Federal Enforcement Primary	3/8/1995	3/30/1995	
preparation of cost document package	Federal Enforcement Primary	2/26/1994	7/11/1994	
preparation of cost document package	Federal Enforcement Primary	12/31/1993	2/25/1994	
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993	
		- Ca	ontinued on next page -	

NPL							
SEARCH II	<b>D:</b> 6	DIST/DIR:	0.70 NW	ELEVATION	:	<b>MAP ID:</b> 95	
ADDRESS: V D CONTACT: JA	VARIOUS PLA DENVER CO 80 DENVER	IUM SITE-OU 7B ACES IN DENVER 0204		REV: ID1: ID2: STATU PHON		SE	
five-year reviev	N		EPA Fund-Financed Primary	6/1/1993	9/30/1993	3	
five-year reviev	V		EPA Fund-Financed Primary	4/5/1993	3 9/12/1994	Į.	
potentially resp	onsible party r	remedial action	Responsible Party Primary	3/31/199 Other C	93 6/16/2000 ompletion Anomaly	)	
potentially resp Higher priority fo			Responsible Party Primary	10/26/19	992 6/29/1994	Į.	
potentially resp	onsible party r	remedial design	Responsible Party Alternate	6/7/1992	2 3/31/1993	3	
potentially resp	onsible party r	remedial design	Responsible Party Primary	6/7/1992	2 6/27/1996	5	
remedial design	n/remedial actio	on negotiations	Federal Enforcement Primary	1/28/199	92 8/21/1992	2	
preparation of c	cost document p	package	Federal Enforcement Primary	12/30/19	991 2/11/1994	ı	
state support ag	gency cooperation	ve agreement	State, Fund Financed Primary	7/25/199	9/25/2000	)	
national prioriti Search Complete		ble party search	Federal Enforcement	6/26/199	91 7/17/1991	l	
national prioriti Search Complete		ble party search	Federal Enforcement	6/26/199	9/9/1991		
national prioriti Search Complete		ble party search	Federal Enforcement	6/11/199	91 8/8/1991		
national prioriti	ies list responsil	ble party search	Federal Enforcement	5/24/199	91 5/24/1991		
preparation of c	cost document p	package	Federal Enforcement Primary	3/30/199	9/30/1991	l	
national prioriti	ies list responsil	ble party search	Federal Enforcement Primary	1/21/199	91 7/23/1991	I	
national prioriti Search Complete		ble party search	Federal Enforcement	1/9/1993	1 6/21/1991	I	
national prioriti Search Complete		ble party search	Federal Enforcement	1/9/1993	5/29/1992	2	
state support ag	gency cooperati	ve agreement	Federal Enforcement	8/6/1990			
					- Continued on ne	xt page -	

NPL							
SEARCH ID: 6 DIST/DIR:	0.70 NW	ELEVATION:	M	<b>AP ID:</b> 95			
IAME: DENVER RADIUM SITE-OU 7B LDDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE OURCE: EPA		ID1: CC ID2: 08 STATUS: FI	14/11 DD980716955E 00247 NAL 33126707				
	Primary						
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	7/1/1988	9/12/1988				
state support agency cooperative agreement	State, Fund Financed Primary	2/12/1988	7/20/1989				
potentially responsible party remedial design	Responsible Party Primary	12/11/1987	3/1/1990				
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	8/3/1987	3/31/1988				
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	7/22/1987	8/25/1987				
remedial investigation/feasibility study workplan approv	al by hq Primary	Federal Enforcement	nt 4/30/1987	6/29/1987			
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	3/24/1987	6/2/1987				
national priorities list responsible party search	Federal Enforcement Primary	9/12/1986	3/1/1990				
national priorities list responsible party search	Federal Enforcement	5/8/1986	1/16/1987				
state support agency cooperative agreement	State, Fund Financed Primary	4/10/1986	4/11/1991				
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	1/16/1985	5/8/1986				
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	1/16/1985	1/16/1987				
national priorities list responsible party search earch Complete, Viable PRPs	Federal Enforcement	11/26/1984	1/16/1985				
remedial investigation/feasibility study workplan approv	al by hq Primary	EPA Fund-Finance	d 1/3/1984	1/3/1984			
state support agency cooperative agreement	State, Fund Financed Primary	8/19/1983	11/14/2000				
remedial investigation/feasibility study workplan approv	al by hq Primary	State, Fund Financ	ed 12/31/1981	12/31/1981			
notice letters issued	EPA Fund-Financed		8/10/1982				
		a	nued on next p				

	]	NPL		
SEARCH ID: 6 DIST/DI	IR: 0.70 NW	ELEVATION:	<b>MAP ID:</b> 95	
NAME: DENVER RADIUM SITE-OU 7B ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955E 0800247 FINAL 3033126707	
notice letters issued	Federal Enforcement		8/10/1982	
hazard ranking system package	EPA Fund-Financed		12/1/1982	
proposal to national priorities list	EPA Fund-Financed		12/30/1982	
final listing on national priorities list	EPA Fund-Financed		9/8/1983	
notice letters issued	EPA Fund-Financed		12/28/1984	
issue request letters (104e)	Federal Enforcement		12/28/1984	
notice letters issued	Federal Enforcement		12/28/1984	
notice letters issued	Federal Enforcement		5/22/1987	
issue request letters (104e)	Federal Enforcement		5/22/1987	
notice letters issued	EPA Fund-Financed		5/22/1987	
issue request letters (104e)	Federal Enforcement		6/3/1987	
special notice issued	Federal Enforcement		7/1/1987	
issue request letters (104e)	Federal Enforcement		7/23/1987	
notice letters issued	Federal Enforcement		10/29/1987	
notice letters issued	EPA Fund-Financed		10/29/1987	
issue request letters (104e)	Federal Enforcement		5/13/1988	
administrative order on consent	Federal Enforcement Primary		7/22/1988	
public notice published	Coast Guard		9/20/1989	
	- More Det	ails Exist For This S	ite; Max Page Limit Reached -	

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**NPL** 

SEARCH ID: 5 DIST/DIR: 0.72 NW ELEVATION: MAP ID: 96

NAME: DENVER RADIUM SITE-OU 10 REV: 1/14/11

 ADDRESS:
 VARIOUS PLACES IN DENVER
 ID1:
 COD980716955I

 DENVER CO 80204
 ID2:
 0800247

 DENVER
 STATUS:
 FINAL

CONTACT: JACK WHYTE STATUS: PHONE: 3033126707

SOURCE: EPA

#### SITE INFORMATION

EVENT TYPE

 SITE DISCOVERY BY:
 EPA
 DISCOVERY DATE:
 03-01-79

 SITE PROPOSED BY:
 EPA
 PROPOSED DATE:
 10-23-81

 FINAL LIST BY:
 EPA
 FINAL LIST DATE:
 09-08-83

ACTIVITIES: 65 SEPARATE PROPERTIES COMBINED INTO 11 OPERABLE UNITS

CONTAMINANTS: RADIUM,THORIUM,URANIUM,ARSENIC,LEAD,RADON GAS

SOURCE OF CONTAMINATION:

CONTAMINATED: SOILS, DEBRIS

THREATENED:

#### SITE DESCRIPTION

Conditions at listing (October 1981): A 1915 U.S. Bureau of Mines report refers to a National Radium Institute in Denver, which led to the identification of 35 Colorado properties where radium was processed, refined, or fabricated into various devices or products. Of these properties, 31 are located in the metropolitan Denver area and include vacant land, industrial operations, buildings, and public streets. Other disposition of this radioactive residue is still unknown. All locations have varying levels of radioactivity. In June 1981, using funds available under the Resource Conservation and Recovery Act, EPA awarded a \$100,000 Cooperative Agreement to Colorado, and added \$178,600 in September 1981. The funds were to (1) conduct remedial investigations to determine the extent and type of contamination within each of the 31 Denver properties and (2) undertake design activities at 9.

Status (July 1983): In August 1982, EPA provided an additional \$15,000 in contract support for a feasibility study to identify alternatives for remedial action at the properties. EPA plans to spend about \$250,000 to extend the remedial investigation outside the boundaries of six properties and to complete a feasibility study consistent with CERCLA guidelines. Studies of five properties have been completed; the remaining 26 are scheduled for completion by the third quarter of 1984.

CONSTRUCTION COMPLETED DATE: 09/27/2006

**PARTIALY DELETED DATE:** 11/08/2010 **FINAL DATE:** 09/08/1983

#### CERCLIS DETAILS

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
five-year review	EPA Fund-Financed	4/15/2008	9/30/2008

risk/health assessment EPA Fund-Financed 4/12/2005 10/13/2005

NPL							
SEARCH I	<b>D</b> : 5	DIST/DIR:	0.72 NW	ELEVATIO	N:	MAP ID:	96
ADDRESS: CONTACT:		IUM SITE-OU 10 ACES IN DENVER 0204		REV ID1: ID2: STAT PHO	COD980 0800247 TUS: FINAL		
prospective pu	ırchaser agreeme	ent assessment	Federal Enforcement	11/26/	(2002 6/	3/2005	
forward plann	ing activity/man	agement assistance	EPA Fund-Financed	9/15/2	.000 9/	27/2000	
preparation of	cost document p	package	Federal Enforcement	9/2/20	000 10	0/19/2001	
remedial desig	gn/remedial actio	on negotiations	Federal Enforcement	6/15/2	.000 10	0/10/2001	
issue request l	etters (104e)		Federal Enforcement	3/28/2	3/	28/2000	
national priori	ties list responsi	ble party search	Federal Enforcement Primary	3/2/20	3/	28/2000	
national priori	ties list responsi	ble party search	Federal Enforcement Primary	3/1/20	3/	28/2000	
groundwater r	monitoring (post-	-record of decision)	Responsible Party Primary	2/28/2	.000 8/	26/2002	
community ad	lvisory group		Community Organizat	ion 1/1/20	000 8/	16/2006	
preparation of	cost document p	package	Federal Enforcement	11/29/	/1999 1/	25/2000	
combined rem	nedial investigation	on/feasibility study	EPA Fund-Financed	11/15/	/1999 6/	16/2000	
five-year revie	èw		EPA Fund-Financed Primary	6/10/1	999 12	2/21/1999	
preparation of	cost document p	oackage	Federal Enforcement	10/21/	71998 12	2/15/1998	
five-year revie	ew		EPA Fund-Financed Primary	1/15/1	998 9/	30/2003	
national priori	ties list responsi	ble party search	Federal Enforcement Primary	3/8/19	95 3/	30/1995	
preparation of	cost document p	oackage	Federal Enforcement Primary	2/26/1	994 7/	11/1994	
preparation of	cost document p	oackage	Federal Enforcement Primary	12/31/	(1993 2/	25/1994	
five-year revie	ew		EPA Fund-Financed Primary	6/1/19	93 9/	30/1993	
					- Continued	on next page -	

	I	NPL		
SEARCH ID: 5 DIST/DIR:	0.72 NW	ELEVATION:	MAP ID	<b>96</b>
NAME: DENVER RADIUM SITE-OU 10 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955I 0800247 FINAL 3033126707	
five-year review	EPA Fund-Financed Primary	6/1/1993	9/30/1993	
five-year review	EPA Fund-Financed Primary	4/5/1993	9/12/1994	
potentially responsible party remedial action	Responsible Party Primary	3/31/1993 Other Completi	6/16/2000 on Anomaly	
potentially responsible party remedial action Higher priority for further assessment	Responsible Party Primary	10/26/1992	6/29/1994	
potentially responsible party remedial design	Responsible Party Alternate	6/7/1992	3/31/1993	
potentially responsible party remedial design	Responsible Party Primary	6/7/1992	6/27/1996	
remedial design/remedial action negotiations	Federal Enforcement Primary	1/28/1992	8/21/1992	
preparation of cost document package	Federal Enforcement Primary	12/30/1991	2/11/1994	
state support agency cooperative agreement	State, Fund Financed Primary	7/25/1991	9/25/2000	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/26/1991	7/17/1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/26/1991	9/9/1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	6/11/1991	8/8/1991	
national priorities list responsible party search	Federal Enforcement	5/24/1991	5/24/1991	
preparation of cost document package	Federal Enforcement Primary	3/30/1991	9/30/1991	
national priorities list responsible party search	Federal Enforcement Primary	1/21/1991	7/23/1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/9/1991	6/21/1991	
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/9/1991	5/29/1992	
state support agency cooperative agreement	Federal Enforcement	8/6/1990 - <b>Co</b>	9/29/1992 ntinued on next page -	
		- 00	munuea on next page -	

NPL							
SEARCH ID: 5 DIST/DIR:	0.72 NW	ELEVATION:	N	<b>IAP ID:</b> 96			
NAME: DENVER RADIUM SITE-OU 10 ADDRESS: VARIOUS PLACES IN DENVER DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		ID1: CO ID2: 080 STATUS: FIN	4/11 D9807169551 00247 JAL 33126707				
	Primary						
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	7/1/1988	9/12/1988				
state support agency cooperative agreement	State, Fund Financed Primary	2/12/1988	7/20/1989				
potentially responsible party remedial design	Responsible Party Primary	12/11/1987	3/1/1990				
remedial investigation/feasibility study negotiations	Federal Enforcement Alternate	8/3/1987	3/31/1988				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	7/22/1987	8/25/1987				
remedial investigation/feasibility study workplan approva	al by hq Primary	Federal Enforcemen	t 4/30/1987	6/29/1987			
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	3/24/1987	6/2/1987				
national priorities list responsible party search	Federal Enforcement Primary	9/12/1986	3/1/1990				
national priorities list responsible party search	Federal Enforcement	5/8/1986	1/16/1987				
state support agency cooperative agreement	State, Fund Financed Primary	4/10/1986	4/11/1991				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/16/1985	5/8/1986				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	1/16/1985	1/16/1987				
national priorities list responsible party search Search Complete, Viable PRPs	Federal Enforcement	11/26/1984	1/16/1985				
remedial investigation/feasibility study workplan approva	al by hq Primary	EPA Fund-Financed	1/3/1984	1/3/1984			
state support agency cooperative agreement	State, Fund Financed Primary	8/19/1983	11/14/2000				
remedial investigation/feasibility study workplan approva	al by hq Primary	State, Fund Finance	ed 12/31/1981	12/31/1981			
notice letters issued	Federal Enforcement		8/10/1982				
- Continued on next page -							

NPL						
SEARCH ID: 5 DIST	// <b>DIR:</b> 0.72 NW	ELEVATION:	MAP ID:	96		
NAME: DENVER RADIUM SITE-OU ADDRESS: VARIOUS PLACES IN DENV DENVER CO 80204 DENVER CONTACT: JACK WHYTE SOURCE: EPA		REV: ID1: ID2: STATUS: PHONE:	1/14/11 COD980716955I 0800247 FINAL 3033126707			
notice letters issued	EPA Fund-Financed		8/10/1982			
hazard ranking system package	EPA Fund-Financed		12/1/1982			
proposal to national priorities list	EPA Fund-Financed		12/30/1982			
final listing on national priorities list	EPA Fund-Financed		9/8/1983			
issue request letters (104e)	Federal Enforcement		12/28/1984			
notice letters issued	Federal Enforcement		12/28/1984			
notice letters issued	EPA Fund-Financed		12/28/1984			
issue request letters (104e)	Federal Enforcement		5/22/1987			
notice letters issued	EPA Fund-Financed		5/22/1987			
notice letters issued	Federal Enforcement		5/22/1987			
issue request letters (104e)	Federal Enforcement		6/3/1987			
special notice issued	Federal Enforcement		7/1/1987			
issue request letters (104e)	Federal Enforcement		7/23/1987			
notice letters issued	Federal Enforcement		10/29/1987			
notice letters issued	EPA Fund-Financed		10/29/1987			
issue request letters (104e)	Federal Enforcement		5/13/1988			
administrative order on consent	Federal Enforcement Primary		7/22/1988			
public notice published	Coast Guard		9/20/1989			
- More Details Exist For This Site; Max Page Limit Reached -						

**Target Property: 6TH AVENUE BRIDGE** JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 20 **DIST/DIR:** 0.73 S-**ELEVATION:** 5211 97 MAP ID:

NAME: SAFETY-KLEEN SYSTEMS INC REV: 1/11/11

COD980954101 ADDRESS: 1345 WEST BAYAUD AVE ID1:

DENVER CO 80223

ID2: STATUS: CA

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO SUBJCA NON TSD: N - NO SIGNIFICANT NON-COMPLIANCE(SNC): N - NO **BEGINNING OF THE YEAR SNC:** N - NO PERMIT WORKLOAD: CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD:

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: ---ST

CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD

**GENERATOR STATUS:** 

NAIC INFORMATION

44131 - AUTOMOTIVE PARTS AND ACCESSORIES STORES

561499 - ALL OTHER BUSINESS SUPPORT SERVICES

333319 - OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING

**ENFORCEMENT INFORMATION:** 

AGENCY: S - STATE DATE: 9/29/1995

TYPE: 125 - NOTICE OF VIOLATION

AGENCY: S - STATE DATE: 5/8/1991

TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE DATE: 5/24/1988

120 - WRITTEN INFORMAL TYPE:

AGENCY: S - STATE DATE: 1/6/1989

TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE DATE: 6/27/1989

TYPE: 310 - FINAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE DATE: 3/18/1996

TYPE: 310 - FINAL 3008(A) COMPLIANCE ORDER

**VIOLATION INFORMATION:** 

**VIOLATION NUMBER:** 0001 **RESPONSIBLE:** S - STATE

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 20 **DIST/DIR:** 0.73 S- **ELEVATION:** 5211 **MAP ID:** 97

NAME: SAFETY-KLEEN SYSTEMS INC REV: 1/11/11

ADDRESS: 1345 WEST BAYAUD AVE ID1: COD980954101

DENVER CO 80223 **ID2:** 

CONTACT: STATUS: CA PHONE:

SOURCE: EPA

**DETERMINED:** 5/24/1988
 **DETERMINED BY:** S - STATE

 CITATION:
 **RESOLVED:** 6/9/1988

TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0002 RESPONSIBLE: S - STATE
DETERMINED: 0/6/1089 DETERMINED BY: S STATE

**DETERMINED:** 9/6/1988
 **DETERMINED BY:** S - STATE

 CITATION:
 **RESOLVED:** 6/27/1989

TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

 VIOLATION NUMBER:
 0003
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 10/4/1988
 DETERMINED BY:
 S - STATE

 CITATION:
 RESOLVED:
 7/7/1989

TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

 VIOLATION NUMBER:
 0004
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 4/22/1991
 DETERMINED BY:
 S - STATE

 CITATION:
 RESOLVED:
 6/26/1991

TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

 VIOLATION NUMBER:
 0005
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 9/11/1995
 DETERMINED BY:
 S - STATE

 CITATION:
 266.18
 RESOLVED:
 2/16/1996

TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

 VIOLATION NUMBER:
 0006
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 11/2/1994 DETERMINED BY:
 S - STATE

 CITATION:
 266.14(i)(1)(i) RESOLVED:
 3/14/1996

TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER:0007RESPONSIBLE:S - STATEDETERMINED:11/2/1994DETERMINED BY:S - STATECITATION:266.16(3)(iv)RESOLVED:3/14/1996

TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

 VIOLATION NUMBER:
 0008
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 1/13/1997
 DETERMINED BY:
 S - STATE

 CITATION:
 266.18(h)(2)
 RESOLVED:
 5/19/1997

TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

CORRECTIVE ACTION INFORMATION

**CA EVENT:** 19890106 CA050IK

CA EVENT: 19890106 CA070YE - DETERMINATION OF NEED FOR A RFI-RFI IS NECESSARY

CA EVENT: 19920109 CA060 - NOTICE OF CONTAMINATION

CA EVENT: 19920109 CA195 - RFI Progress Reports Received

CA EVENT: 19930317 CA300 - CMS WORKPLAN APPROVED

**CA EVENT:** 19970317 CA077

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

RCRACOR

CA

**SEARCH ID:** 20 **DIST/DIR:** 0.73 S- **ELEVATION:** 5211 **MAP ID:** 97

NAME: SAFETY-KLEEN SYSTEMS INC REV: 1/11/11

ADDRESS: 1345 WEST BAYAUD AVE ID1: COD980954101

DENVER CO 80223 ID2:

CONTACT: STATUS: PHONE:

SOURCE: EPA

CA EVENT: 19970319 CA070NO - DETERMINATION OF NEED FOR A RFI-RFI IS NOT NECESSARY

CA EVENT: 19970319 CA075LO - CA PRIORITIZATION-LOW CA PRIORITY

CA EVENT: 19970319 CA200 - RFI APPROVED

CA EVENT: 19970319 CA050 - RFA COMPLETED

CA EVENT: 19920403 CA260 - CMS Workplan Received

CA EVENT: 19940504 CA340 - CMS Report Received

CA EVENT: 19980504 CA225NR - STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE

TO STABILIZATION

CA EVENT: 19980504 CA999 - Corrective Action Process Terminated

CA EVENT: 19980508 CA725NC - HUMAN EXPOSURES CONTROLLED DETERMINATION-NO CONTROL

MEASURES NEEDED

CA EVENT: 19980508 CA750NR - RELEASE TO GW CONTROLLED DETERMINATION-NO RELEASE TO

GROUNDWATER

CA EVENT: 19950601 CA370 - Petition For No Further Action Receipt Date

CA EVENT: 19910617 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 19910617 CA100 - RFI IMPOSITION

CA EVENT: 19910617 CA006AC - Area of Concern

CA EVENT: 19910703 CA180 - RFI Implementation Begun

CA EVENT: 19940929 CA345 - CMS Progress Reports Received

CA EVENT: 19931008 CA195 - RFI Progress Reports Received

CA EVENT: 19931206 CA330 - CMS Implementation Begun

#### **HAZARDOUS WASTE INFORMATION:**

F004 - The following spent non-halogenated solvents: cresols, cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above

D001 - Ignitable waste

F001 - The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixt

F002 - The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoro

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 18 **DIST/DIR:** 0.75 S- **ELEVATION:** 5212 **MAP ID:** 98

NAME: MALLOW PLATING WORKS INC REV: 1/11/11

ADDRESS: 118 SOUTH PECOS ST ID1: COD007076813

DENVER CO 80223 ID2:

STATUS: CA

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD: ----CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:

CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD

GENERATOR STATUS: N

NAIC INFORMATION

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

 VIOLATION NUMBER:
 0001
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 7/24/1992
 DETERMINED BY:
 S - STATE

 CITATION:
 RESOLVED:
 9/22/1994

TYPE: GENERATOR-GENERAL REQUIREMENTS

CORRECTIVE ACTION INFORMATION

CA EVENT: 19930301 CA190 - RFI Report Received

CA EVENT: 19950801 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO

STABILIZATION

CA EVENT: 19950801 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES,

APPLICABLE AS OF THIS DATE

CA EVENT: 19950801 CA750YE - RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS

OF THIS DATE

CA EVENT: 19950811 CA075LO - CA PRIORITIZATION-LOW CA PRIORITY

CA EVENT: 19940815 CA195 - RFI Progress Reports Received

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 18 **DIST/DIR:** 0.75 S- **ELEVATION:** 5212 **MAP ID:** 98

NAME: MALLOW PLATING WORKS INC REV: 1/11/11

ADDRESS: 118 SOUTH PECOS ST ID1: COD007076813

DENVER CO 80223 ID2:

STATUS: CA

CONTACT: PHONE:

SOURCE: EPA

CA EVENT: 19950820 CA006AC - Area of Concern

CA EVENT: 19920820 CA100 - RFI IMPOSITION

CA EVENT: 19920820 CA250 - CMS Imposition

CA EVENT: 19940930 CA195 - RFI Progress Reports Received

CA EVENT: 19941025 CA999 - Corrective Action Process Terminated

CA EVENT: 19921124 CA110 - RFI Workplan Received

CA EVENT: 19921201 CA600SR - STABILIZATION MEASURES IMPLEMENTED-PRIMARY MEAS IS SOURCE

REMOVL and/OR TRT

CA EVENT: 19921214 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 19921214 CA300 - CMS WORKPLAN APPROVED

CA EVENT: 19921214 CA400 - DATE FOR REMEDY SELECTION (CM IMPOSED)

CA EVENT: 19921214 CA500 - CMI WORKPLAN APPROVED

CA EVENT: 19921221 CA180 - RFI Implementation Begun

#### HAZARDOUS WASTE INFORMATION:

F009 - Spent stripping and cleaning bath solutions from electroplating operations in which cyanides are used in the process.

F008 - Plating bath residues from the bottom of plating baths from electroplating operations in which cyanides are used in the process.

F006 - Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon

F007 - Spent cyanide plating bath solutions from electroplating operations.

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

ID2:

**SEARCH ID:** 19 **DIST/DIR:** 0.82 SE **ELEVATION:** 5243 **MAP ID:** 99

NAME: PSCO - BARTERS LOT C REV: 1/11/11

ADDRESS: 701 WEST W. BAYAUD AVE ID1: COD982584526

DENVER CO 80223

STATUS: CA

CONTACT: PHONE: SOURCE: EPA

SITE INFORMATION

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD: ----CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:

CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD

GENERATOR STATUS: N

NAIC INFORMATION

ENFORCEMENT INFORMATION:

**AGENCY:** S - STATE **DATE:** 1/30/1996

TYPE: 120 - WRITTEN INFORMAL

**AGENCY:** S - STATE **DATE:** 9/24/1993

TYPE: 340 - FINAL 3008(H) I.S. CA ORDERS (NON-HSWA)

VIOLATION INFORMATION:

 VIOLATION NUMBER:
 0001
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 7/26/1993
 DETERMINED BY:
 S - STATE

 CITATION:
 261.24 260.10 100.10
 RESOLVED:
 9/24/1993

TYPE: GENERATOR-OTHER REQUIREMENTS

 VIOLATION NUMBER:
 0002
 RESPONSIBLE:
 S - STATE

 DETERMINED:
 2/1/1996
 DETERMINED BY:
 S - STATE

 CITATION:
 262.11 279.22(c)
 RESOLVED:
 3/20/1996

TYPE: GENERATOR-OTHER REQUIREMENTS

CORRECTIVE ACTION INFORMATION

**CA EVENT:** 19930111 CA070

CA EVENT: 19930111 CA110 - RFI Workplan Received

- Continued on next page -

**Target Property: 6TH AVENUE BRIDGE** 11137801.3000 **JOB:** 

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 19 **DIST/DIR:** 0.82 SE **ELEVATION:** 5243 MAP ID: 99

NAME: PSCO - BARTERS LOT C REV: 1/11/11

COD982584526 ADDRESS: 701 WEST W. BAYAUD AVE ID1:

DENVER CO 80223

ID2: STATUS: CA

**CONTACT:** PHONE:

**SOURCE:** EPA

19930111 CA060 - NOTICE OF CONTAMINATION CA EVENT:

CA EVENT: 19930111 CA006AC - Area of Concern

CA EVENT: 19940126 CA260 - CMS Workplan Received

CA EVENT: 19940202 CA300 - CMS WORKPLAN APPROVED

CA EVENT: 19940202 CA400 - DATE FOR REMEDY SELECTION (CM IMPOSED)

CA EVENT: 19940202 CA450 - CORRECTIVE MEASURES DESIGN APPROVED

CA EVENT: 19940202 CA500 - CMI WORKPLAN APPROVED

CA EVENT: 19950222 CA190 - RFI Report Received

CA EVENT: 19950228 CA190 - RFI Report Received

CA EVENT: 19930305 CA100 - RFI IMPOSITION

CA EVENT: 19930305 CA120 - RFI Workplan Modification Requested by Agency

CA EVENT: 19950512 CA999 - Corrective Action Process Terminated

CA EVENT: 19950517 CA999 - Corrective Action Process Terminated

CA EVENT: 19950601 CA190 - RFI Report Received

CA EVENT: 20010706 CA510 - DETERMINATION OF TECH IMPRACTICABILITY

CA EVENT: 20010720 CA841TS

CA EVENT: 19950801 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO

STABILIZATION

CA EVENT: 19950801 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES.

APPLICABLE AS OF THIS DATE

CA EVENT: 19950801 CA750YE - RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS

OF THIS DATE

CA EVENT: 19950811 CA075LO - CA PRIORITIZATION-LOW CA PRIORITY

CA EVENT: 19950811 CA999 - Corrective Action Process Terminated

CA EVENT: 19950911 CA999 - Corrective Action Process Terminated

CA EVENT: 19930924 CA250 - CMS Imposition

CA EVENT: 19931119 CA110 - RFI Workplan Received

CA EVENT: 19921201 CA600SR - STABILIZATION MEASURES IMPLEMENTED-PRIMARY MEAS IS SOURCE

REMOVL and/OR TRT

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 19 **DIST/DIR:** 0.82 SE **ELEVATION:** 5243 **MAP ID:** 99

NAME: PSCO - BARTERS LOT C REV: 1/11/11

ADDRESS: 701 WEST W. BAYAUD AVE ID1: COD982584526

DENVER CO 80223 ID2:

STATUS: CA

CONTACT: PHONE:

SOURCE: EPA

CA EVENT: 19931201 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 19931201 CA180 - RFI Implementation Begun

**HAZARDOUS WASTE INFORMATION:** 

D008 - Lead

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 14 **DIST/DIR:** 1.00 NW **ELEVATION:** 5197 **MAP ID:** 100

NAME: EVERSMAN MANUFACTURING CO REV: 1/11/11

**ADDRESS**: 1145 5TH ST **ID1**: COD007064397

DENVER CO 80204 ID2:

STATUS: CA

CONTACT: PHONE: SOURCE: EPA

**SITE INFORMATION** 

**UNIVERSE INFORMATION:** 

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION

SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO
SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO
PERMIT WORKLOAD:
CLOSURE WORKLOAD: ----POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:

CORRECTIVE ACTION WORKLOAD: Y - CORRECTIVE ACTION WORKLOAD

GENERATOR STATUS:

NAIC INFORMATION

333111 - FARM MACHINERY AND EQUIPMENT MANUFACTURING

**ENFORCEMENT INFORMATION:** 

VIOLATION INFORMATION:

CA EVENT:

CORRECTIVE ACTION INFORMATION

CA EVENT: CA0012

CA EVENT: 19940119 CA999 - Corrective Action Process Terminated

CA002Y

CA EVENT: 19910308 CA190 - RFI Report Received

CA EVENT: 19920316 CA195 - RFI Progress Reports Received

CA EVENT: 19900330 CA060 - NOTICE OF CONTAMINATION

CA EVENT: 19950330 CA006AC - Area of Concern

CA EVENT: 19900514 CA100 - RFI IMPOSITION

CA EVENT: 19990608 CA225NR - STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE

TO STABILIZATION

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

CA

**SEARCH ID:** 14 **DIST/DIR:** 1.00 NW **ELEVATION:** 5197 **MAP ID:** 100

NAME: EVERSMAN MANUFACTURING CO REV: 1/11/11

**ADDRESS**: 1145 5TH ST **ID1**: COD007064397

DENVER CO 80204 **ID2:** 

STATUS: CONTACT: PHONE:

SOURCE: EPA

CA EVENT: 19990608 CA725NC - HUMAN EXPOSURES CONTROLLED DETERMINATION-NO CONTROL

MEASURES NEEDED

CA EVENT: 19990608 CA750NR - RELEASE TO GW CONTROLLED DETERMINATION-NO RELEASE TO

GROUNDWATER

CA EVENT: 19990608 CA999 - Corrective Action Process Terminated

CA EVENT: 19930707 CA195 - RFI Progress Reports Received

CA EVENT: 19950801 CA750YE - RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS

OF THIS DATE

CA EVENT: 19950801 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO

STABILIZATION

CA EVENT: 19950801 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES,

APPLICABLE AS OF THIS DATE

CA EVENT: 19950811 CA075LO - CA PRIORITIZATION-LOW CA PRIORITY

CA EVENT: 19900827 CA110 - RFI Workplan Received

CA EVENT: 19901010 CA120 - RFI Workplan Modification Requested by Agency

CA EVENT: 19931029 CA195 - RFI Progress Reports Received

CA EVENT: 19931101 CA200 - RFI APPROVED

CA EVENT: 19931101 CA250 - CMS Imposition

CA EVENT: 19931115 CA260 - CMS Workplan Received

CA EVENT: 19931117 CA300 - CMS WORKPLAN APPROVED

CA EVENT: 19931117 CA450 - CORRECTIVE MEASURES DESIGN APPROVED

CA EVENT: 19931117 CA500 - CMI WORKPLAN APPROVED

CA EVENT: 19931122 CA330 - CMS Implementation Begun

CA EVENT: 19901128 CA180 - RFI Implementation Begun

CA EVENT: 19931201 CA600SR - STABILIZATION MEASURES IMPLEMENTED-PRIMARY MEAS IS SOURCE

REMOVL and/OR TRT

#### **HAZARDOUS WASTE INFORMATION:**

U159 - 2-Butanone (I,T) (OR) Methyl ethyl ketone (MEK) (I,T)

U072 - Benzene, 1,4-dichloro- (OR) p-Dichlorobenzene

F018

F017

D007 - Chromium

- Continued on next page -

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**RCRACOR** 

**SEARCH ID:** 14 **DIST/DIR:** 1.00 NW **ELEVATION:** 5197 **MAP ID:** 100

NAME: EVERSMAN MANUFACTURING CO REV: 1/11/11

**ADDRESS:** 1145 5TH ST **ID1:** COD007064397

DENVER CO 80204 ID2:

STATUS: CA

CONTACT: PHONE: SOURCE: EPA

D008 - Lead

**LUST** 

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204 **JOB:** 11137801.3000

SEARCH ID: 161 DIST/DIR: NON GC ELEVATION: MAP ID:

 NAME:
 TRYND
 REV:
 12/01/08

 ADDRESS:
 TRYND
 ID1:
 LTT-110

TRYND
DENVER CO
ID1: LTT-110
ID2:

DENVER STATUS: UNKNOWN

CONTACT: PHONE: SOURCE: CDPHE

LUST TRUST TANK SITES

**SOURCE OF DATA:** From an old CDPHE list of locations where tank leaks were suspected and LUST Trust funds were used in an effort to identify the source. Often, the source was found nearby and was entered in the LUST database (now COSTIS).

This listing not entered into COSTIS back when CDPHE transferred responsibility for tank leaks to OPS. Few people at OPS know of this old CDPHE list, and any associated files are thought to have been disposed of or misplaced.

**SWL** 

SEARCH ID: 158 DIST/DIR: NON GC ELEVATION: MAP ID:

 NAME:
 ALLIED CHEMICALS DENVER, CO
 REV:
 12/01/08

 ADDRESS:
 ADDRESS NOT REPORTED
 ID1:
 12-0383

 DENVER CO
 ID2:
 00070-0001213

 DENVER CO
 ID2:
 HISTORIC

DENVER STATUS: HISTORIC

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: CO Old Waste Sites

5-B IND 7-3 PONDS 9-C 1POND LINED. HAZARD TYPE: CHEMICAL. IMPACT: GW.; TRS- T04 R68 S09

Type- IMPOUNDMENT

Fill- LIQUIDS.

Oper/Ownr/Othr-//ALLIED CHEMICALS CO,,

Target Property: 6TH AVENUE BRIDGE JOB: 11137801.3000

DENVER CO 80204

**SWL** 

SEARCH ID: 159 DIST/DIR: NON GC ELEVATION: MAP ID:

NAME:COLORADO DEPT OF HEALTHREV:12/01/08ADDRESS:ADDRESS NOT REPORTEDID1:12-039

DENVER CO ID2: 00070-0001220
DENVER STATUS: HISTORIC

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: CO Old Waste Sites

TRAINING MODE.

Type-

Oper/Ownr/Othr-,,

**Target Property:** 6TH AVENUE BRIDGE 11137801.3000 **JOB:** 

DENVER CO 80204

**SWL** 

SEARCH ID: 160 **DIST/DIR:** NON GC **ELEVATION:** MAP ID:

NAME: OLD DENVER CITY SWDS **REV:** 12/01/08 ADDRESS: ADDRESS NOT REPORTED 12-0391 ID1: 00070-0001221 DENVER CO ID2:

DENVER STATUS: HISTORIC

CONTACT: PHONE: SOURCE: CDPHE/COUNTY

COLORADO HISTORIC LANDFILLS

STATUS: CO Old Waste Sites

Type- LANDFILL Oper/Ownr/Othr-,,

#### **Environmental FirstSearch Descriptions**

**NPL:** *EPA* NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

**NPL DELISTED:** *EPA* NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

DELISTED - Deleted from the Final NPL

**CERCLIS:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

**NFRAP:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

NFRAP - No Further Remedial Action Plan

- P Site is part of NPL site
- D Deleted from the Final NPL
- F Currently on the Final NPL
- N Not on the NPL
- O Not Valid Site or Incident
- P Proposed for NPL
- R Removed from Proposed NPL
- S Pre-proposal Site
- W-With drawn

RCRA COR ACT: *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: *EPA/MA DEP/CT DEP* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN - Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP.

VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.

SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.

LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

#### RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES

- Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:

Failure to report in a timely matter.

No longer in business.

No longer in business at the listed address.

No longer generating hazardous waste materials in quantities which require reporting.

**ERNS:** *EPA/NRC* EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**Tribal Lands:** *DOI/BIA* INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are

Federally-administered lands within a reservation which may or may not be considered part of the reservation. BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: *CDPHE* CO SPL - Colorado does not have an official State Priority List (SPL). However, there are a number of sites that the state seems to place in this sort of category. Some are officially a Natural Resource Damages Site (NRDS) or Private Cleanup Site (Non-Superfund), but they're listed on the state's web page of Superfund sites (www.cdphe.state.co.us/hm/sf\_sites.htm). Others are UMTRA (Uranium Mill Tailing Remedial Action) mill tailing cleanup sites (www.cdphe.state.co.us/hm/umsites.htm). Thousands of UMTRA "vicinity properties" have also been identified where mill tailings were used as sand in concrete, roadbase, trenches, bricks, etc. Such properties have been remediated in Durango, Grand Junction, Fruita, Palisade, Gunnison, Maybell, Naturita and Rifle, but some unidentified tailings may still remain in and around these communities. CDPHE's list of vicinity properties is not publicly available and was not searched for this report. Property-specific information is available through the CDPHE Grand Junction office. See www.cdphe.state.co.us/hm/rptailng.htm.

**State Spills 90:** *CDPHE* ENVIRONMENTAL RELEASE AND INCIDENT DATABASE - This is a database of reported spills in Colorado.

**State/Tribal SWL:** *CDPHE* DATABASE OF ACTIVE SOLID WASTE MANAGEMENT FACILITIES - Listing of Active solid waste facilities and transfer stations.

DATABASE OF ACTIVE SOLID WASTE MANAGEMENT FACILITIES - Listing of Active solid waste facilities and transfer stations.

CO Historic Landfills - This proprietary database represents a compilation of eleven local, regional and state agency sources. The agencies generated these lists on a one-time basis and do not expect to update them. A more detailed description of the applicable source is included with any findings reported from this database. The eleven sources are:

- 1. Adams County CO Old Landfills
- 2. Arapahoe County CO Old Landfills
- 3. Douglas County CO Old Landfills
- 4. Weld County CO Old Landfills
- 5. Boulder County CO Old Landfills
- 6. Jefferson County CO Old Landfills
- 7. Denver CO Methane Study
- 8. CO Methane Study
- 9. DRCOG Methane Study
- 10. Denver CO Old Fil Sites
- 11. CO Old Waste Sites

**State/Tribal LUST:** *COSTIS* DATABASE OF LEAKING UNDERGROUND STORAGE TANKS - Colorado Department of Labor and Employment's Colorado Storage Tank Information System (COSTIS) provides this data.

LUST Trust Tanks - This is an old list of locations where tank leaks were suspected and LUST (Leaking Underground Storage Tank) Trust funds were used in an effort to identify the source. Often, the facility responsible for the leak was found nearby, and that facility was then entered into the LUST database. In other cases, however, the source was never identified, and nothing was ever entered into the LUST database. When responsibility for the tank program was transferred from CDPHE (Colorado Department of Public Health & Environment) to CDLE (Colorado Department of Labor & Employment) in the '90s, this old LUST Trust list was never entered into the new COSTIS database (Colorado Storage Tank Information System). Few people at CDLE are aware of this old list, and any files associated with the listings have apparently been discarded or misplaced.

**State/Tribal UST/AST:** *COSTIS* DATABASE OF UNDERGROUND STORAGE TANKS - Colorado Department of Labor and Employment's Colorado Storage Tank Information System (COSTIS) provides this data.

**State/Tribal EC:** *CDPHE* ENVIRONMENTAL COVENANTS - Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is

adequately protective of human health and the environment.

**State/Tribal VCP:** *CDPHE* THE VOLUNTARY CLEANUP AND REDEVELOPMENT PROGRAM PROGRAM - The Voluntary Cleanup and Redevelopment program was created in 1994. The objective of the program is to facilitate the redevelopment and transfer of contaminated properties. Cleanup decisions are based on existing standards and the proposed use of the property. The actual cleanup and verification is the owner's responsibility.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

**Meth Labs:** *US DOJ* NATIONAL CLANDESTINE LABORATORY REGISTER - Database of addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

#### **Environmental FirstSearch Database Sources**

NPL: EPA Environmental Protection Agency

*Updated quarterly* 

NPL DELISTED: EPA Environmental Protection Agency

*Updated quarterly* 

CERCLIS: EPA Environmental Protection Agency

*Updated quarterly* 

NFRAP: EPA Environmental Protection Agency.

*Updated quarterly* 

RCRA COR ACT: EPA Environmental Protection Agency.

Updated quarterly

**RCRA TSD:** *EPA* Environmental Protection Agency.

Updated quarterly

**RCRA GEN:** *EPA/MA DEP/CT DEP* Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

*Updated quarterly* 

RCRA NLR: EPA Environmental Protection Agency

*Updated quarterly* 

ERNS: EPA/NRC Environmental Protection Agency

Updated annually

Tribal Lands: DOI/BIA United States Department of the Interior

Updated annually

**State/Tribal Sites:** *CDPHE* The Colorado Department of Public Health and Environment Hazardous Materials and Waste Management Division

#### Updated annually

State Spills 90: CDPHE CDPHE Hazardous Materials and Waste Management Division

Updated annually

**State/Tribal SWL:** *CDPHE* The Colorado Department of Public Health and Environment Hazardous Materials and Waste Management DivisionPublic Safety

Updated annually

**State/Tribal LUST:** COSTIS The Colorado Department of Labor and Employment/Division of Oil and Public Safety

Updated semi-annually

**State/Tribal UST/AST:** *COSTIS* The Colorado Department of Labor and Employment/Division of Oil and Public Safety

Updated semi-annually

**State/Tribal EC:** *CDPHE* rado Department of Public Health and Environment Hazardous Materials and Waste Management Division

Updated annually

**State/Tribal VCP:** *CDPHE* The Colorado Department of Public Health and Environment Hazardous Materials and Waste Management Division

Updated annually

RADON: NTIS Environmental Protection Agency, National Technical Information Services

*Updated periodically* 

Meth Labs: US DOJ U.S. Department of Justice

Updated when available

# Environmental FirstSearch Street Name Report for Streets within .5 Mile(s) of Target Property

**Target Property:** 6TH AVENUE BRIDGE DENVER CO 80204

JOB: 11137801.3000

Street Name	Dist/Dir	Street Name	Dist/Dir
Elati St	0.44 -E		
Fox St	0.39 -E		
Galapago St	0.32 -E		
I-25	0.31 SW		
Inca St	0.26 -E		
Kalamath St	0.12 -E		
Lipan St	0.05 -E		
Mariposa St	0.00		
N Valley Hwy	0.38 SW		
Navajo St	0.00		
Osage St	0.02 SW		
Quivas St	0.09 SW		
Raritan Way	0.15 SW		
Rio Grande Blvd	0.32 SW		
Santa Fe Dr	0.21 NE		
Seminole Rd	0.02 SW		
Tejon St	0.36 NW		
Umatilla St	0.35 NW		
United States Highwa	0.38 SW		
United States Highwa	0.31 SW		
United States Highwa	0.31 SW		
Vallejo St	0.40 NW		
W 10th Ave	0.39 N-		
W 11th Ave	0.49 NE		
W 1st Ave	0.48 S-		
W 2nd Ave	0.43 SE		
W 3rd Ave	0.32 SE		
W 4th Ave	0.20 SE		
W 5th Ave	0.10 SE		
W 6th Ave	0.00		
W 6th Ave Fwy	0.33 SW		
W 7th Ave	0.06 N-		
W 8th Ave	0.17 N-		
W 8th Avenue Viaduct	0.14 N-		
W 9th Ave	0.29 N-		
W Barberry Pl	0.40 NW		
W Mulberry Pl	0.46 NW		
Wyandot St	0.45 NW		



August 25, 2011

Laboratory Code: RES Subcontract Number: NA

Laboratory Report: RES 219338-2 Project # / PO #: None Given

Project Description: 6th Ave. Bridge over

**UPRR** 

Shannon Lucio
Pinyon Environmental Engineering
9100 West Jewell Ave. Suite 200
Lakewood CO 80232-6357

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the American Industrial Hygiene Association, Lab ID 101533 - Accreditation Certificate #480. The laboratory is currently proficient in both PAT & ELPAT programs respectively.

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy - Inductively Coupled Plasma (AES-ICP) per your request. Reported sample results were not blank corrected. The analysis has been completed in general accordance with the appropriate methodology as stated in the analysis table. Results have been sent to your office.

**RES 219338-2** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those authorized by the client. The results described in this report only apply to the samples analyzed. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you should have any questions about this report, please feel free to call me at 303-964-1986.

Sincerely,

Jeanne Spencer Orr

President

# RESERVOIRS ENVIRONMENTAL, INC.

5801 Logan St., Suite 100 Denver CO 80216

TABLE ANALYSIS: LEAD IN PAINT

RES Job Number: RES 219338-2

Client: Pinyon Environmental Engineering

Client Project Number / P.O.: None Given

Client Project Description: 6th Ave. Bridge over UPRR

Date Samples Received: August 23, 2011

Analysis Type: USEPA SW846 3050B / AA (7420)

Turnaround: 3 Day

Date Samples Analyzed: August 24, 2011

Client ID Number	Lab ID Number	Reporting Limit (%)	LEAD CONCENTRATION (%)
PC-1	EM 785456	0.003	0.070
PC-2	EM 785457	0.005	BRL
PC-3	EM 785458	0.003	7.246
PC-4	EM 785459	0.004	2.693

<sup>\*</sup> Unless otherwise noted all quality control samples performed within specifications established by the laboratory.

9.20.

8-26-8-30 W 2201 Due Time: Due Date:

REILAB RESERVOIFS Environmental, Inc. 5801 Logan St. Denver, CO 80216 Ph. 303 964-1986 - Fax 303-477-4275 - Toll Free : 366 RESI-ENV

Pager: 303-509-2098

RES 219338

-IPLM

2 mm CONTACT INFORMATION: Cell/pager: Phone: lucio@pinyon-env.com Phone: 303.980.5200 Luci Sell/pager: NA Final Data Deliverable Email Address: Contact: Shannon NA Cell/pager: INVOICE TO: (IF DIFFERENT) Company: Address: 16th due bridge over apak 200 Avenue, Company Pinyon Environmental 80232 Jewell ပ္ပ Lakewood, . |×| |×| Project Number and/or P.O. #: Project Description/Location: Address: 9100

۵ 9 EM Number (Laboraton 5 S S S LAB NOTES Use Only) (%) (V) Drinking Water = DW | Waste Water = WW \*\*ASTM E1792 approved wipe media only\*\* Collected Time Paint = P Wipe = W Bulk = B F = Food VALID MATRIX CODES Date Collected w/pp/ww O = Other Swab = SW # Containers Soil = S Dust = D Air = AMatrix Code 891A \ (J) Sample Volume SAMPLER'S INITIALS OR OTHER NOTES Mold: +/-, Identification, Quantification or Quantification or Quantification REQUESTED ANALYSIS or Quantification +/- or Quantification Listeria: +/-E.coli O157:H7:-ORGANICS - METH RCRA 8, TCLP, Welding Fume, Metals Scan METALS - Analyte(s) רפמנו Respirable AH2O ,800aY ,A00aY Semi-quant, Micro-vac, ISO-Indirect Preps - AHERA, Level II, 7402, ISO, +/-, Quant, Short report, Long report, Point Count wna > 255/12 "Turnaround times establish a laboratory priorly, subject to laboratory volume and are not guaranteed. Additional fees RUSH 24 hr. X 3-5 Day - 30 (m. (F RSS)) Special Instructions: PLM-PURIS POK+COLK+ 1F 1855 THRMS RUSH (Same Day) \_\_\_\_ PRIORITY (Next Day) \( \oldsymbol{A} \) STANDARD \( \oldsymbol{SQQQ} \) 5 Day required for RUSH turnarounds.\*\* 3 Day 3-5 Day 24 Hr 48 Hr (Sample ID's must be unique) MICROBIOLOGY LABORATORY HOURS: Weekdays: 9am - 6pm 3-5 Day \_\_\_24 hr. \_\_\_2 Day apply for afterhours, weekends and holidays."\* RHISMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm (Rush PCM = 2hr, TEM = 6hr.) RUSH \_\_\_ 5 day \_\_\_10 day 3 day 5 Day RUSH 48 Hr. 24 hr. Salmonella, Listeria, E.coli, APC, Y & M E.coli O157:H7, Coliforms, S.aureus - Brown Stay 37 15 Client sample ID number Red RCRA 8 / Metals & Welding Number of samples received • <u>C</u> Fume Scan / TCLP ا- کے PLM / PCM / TEM , 7 Metal(s)// Dust S 4 Ġ œ თ 9

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing cleav/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may resort in a 1.5% monthly interest surcharge. (Additional samples shall be listed on attached long form.)

elinguished BM	Manny July	×,	.93.11		Date/Time:	, ,	Sample Condition:	on: On Ice	Sealed
aboratory Use Only eceived By:	Kael	Date/Time:	ime: 8.23.	71	2,20 carrier.	. hand	Temp. (F°)	Yes / No	Yes/No (Yes/No
Results: Contact	Phone Email Fax	Date	Time	Initials	Contact	Phone Email Fax	Date	Тіте	Initials
Contact	Phone Email Fax	Date	Time	Initials	Initials Contact	Phone Email Fax	Date	Time	Initials



August 27, 2011

Laboratory Code: RES Subcontract Number: NA

Laboratory Report: RES 219338-1 Project # / P.O. # None Given

Project Description: 6th Ave. Bridge over

UPRR

Shannon Lucio
Pinyon Environmental Engineering
9100 West Jewell Ave. Suite 200
Lakewood CO 80232-6357

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - Accreditation Certificate #480 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Reservoirs Environmental, Inc. has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

**RES 219338-1** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

Jeanne Spencer Orr

President

Analyst(s): \_\_\_\_\_\_\_ Paul D. LoScalzo

Michael Scales
Anita Grigg

Wenlong Liu Adam Humphreys Robert R. Workman Jr.

Bethany Nichols Jennifer Jones

Anya Angst

Page 2 of 2

NVLAP Lab Code 101896-0 TDH Licensed Laboratory # 30-0136

#### TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: RES 219338-1

Client: Pinyon Environmental Engineering

Client Project Number / P.O.: None Given

Client Project Description: 6th Ave. Bridge over UPRR

Date Samples Received: August 23, 2011
Analysis Type: PLM, Short Report

Turnaround: 3 Day

Date Analyzed: August 26, 2011

Client	Lab	L			Asbestos	Content	Non	Non-
Sample	ID Number	Α		Sub			Asbestos	Fibrous
Number		Υ	Physical	Part			Fibrous	Components
		Е	Description	(%)	Mineral	Visual	Components	(%)
		R			į	Estimate (%)	(%)	
CK-1-1	EM 785455	А	Light gray acrylic material w/ gray granular plaster and debris	100		ND	TR	100

8.26.11

24-8-302-

7022

Due Time: Due Date

S801 Logan St. Denver, CO 80216 • Ph. 303 864-1986 • Fax 303-477-4275 • Toll Free :866 RESI-ENV Reservoirs

INVOICE TO: (IF DIFFERENT) Pager: 303-509-2098

RES 219338 -- IPLM

2 mm

CONTACT INFORMATION:

9 58 EM Number (Laborator 5 LAB NOTES: Use Only) ζ (V) Drinking Water = DW Waste Water = WW \*\*ASTM E1792 approved wipe media only\*\* Collected Wipe = W Paint = P F = Food Bulk = B VALID MATRIX CODES Collected Date O = Other Phone # Containers Swab = SW Dust = D Soil # S Air = AAstrix Code (L) / Area lucio@pinyon-env.com Sample Volume AMPLER'S INITIALS OR OTHER NOTES Lucio Identification, Quantification Phone: 303.980.5200 REQUESTED ANALYSIS Contact Shannon Quantification NA +/- or Quantification Fax: NA Cell/pager. SCRA 8, TCLP, Welding Fume, Metals Scan METALS - Analyte(s) DUST - Total, Respirable - Mod 7400A, 7400B, OSHA Semi-quant, Micro-vac, ISO-Indirect Prepa AHERA, Level II, 7402, ISO, +/-, Quant, Short report, Long report, Point Count Wld "Turnaround times establish a laboratory priority, subject to taboratory volume and are not guaranteed. Additional fees. apply for afterhours, weekends and holidays." - 3day (Frash) special Instructions: PUM-pulase point count it less than or PRIORITY (Next Day) X STANDARD 3012 288 5 Day required for RUSH turnarounds.\*\* 3 Day 3-5 Day Address: 48 H 10th June bridge over apak MICROBIOLOGY LABORATORY HOURS: Weekdays: 9am - 6pm (Sample ID's must be unique) 3-5 Day 2 Day 24 Hr 24 hr. 🔏 3-5 Day CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm SRESTOS LABORATORY HOURS: Weekdays: 7am - 7pm (Rush PCM = 2hr, TEM = 6hr.) RUSH 5 day 10 day 3 day 5 Day 200 24 hr. 48 Hr. RUSH Jewell Avenue RUSH (Same Day) RUSH Pinyon Environmenta 80232 24 hr. Salmonella, Listeria, E.coli, APC, Y & M PC-3 - Brown E.coli O157:H7, Coliforms, S.aureus PC:1- Silver A:2. Red Count to Son Client sample ID number Lakewood, CO RCRA 8 / Metals & Welding Address: 9100 W. roject Description/Location. Project Number and/or P.O. # <u>Ck.-</u>-Fume Scan / TCLP PLM / PCM / TEM Metal(s)// Dust Company:

ω σ

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing clientrompany representative agrees that submission of the following samples for requested analysis as indicated on this Chajn of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, faiture to comply with payment terms may result in a 1.5% monthly interest surcharge. (Additional samples shall be listed on attached long form.) Number of samples received:

Ise Only       Carrier:       Carrier:       Carrier:       Carrier:       Carrier:       Carrier:       Carrier:       Carrier:       Contact       Phone Email Fax       Date       Time             Items       Time       Initials       Contact       Phone Email Fax       Date       Time    Time Initials Contact Phone Email Fax Date Time Time Time Time Time Time Time Tim	Relinguished	shed BA	SOUND CANADA	×	11.68.		Date/Time:		Sample Condition:	n: On Ice	Seale	1 Attect
Contact Phone Email Fax Date Time Initials Contact Phone Email Fax Date Time	aborato	ry Use Only	Paple	I. Tyate/	3	1/	2,20 carrier	ROND	Temp. (F°)	Yes/No	Yes / No	No Kee/ No
the Date Time Initials Contact Phone Email Fax Date Time	Received B	_	Phone Email Fax	Date	Time	ľ	Contact	J	Date	Time	Initia	S]
		Contact	Phone Email Fax	Cate	Time	Initials	Contact	Phone Email Fax	Date	Time	Initia	sl:



THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-22233-1 Client Project/Site: US 6 and BNSF

#### For:

Pinyon Env Eng Resources, Inc. 9100 West Jewell Avenue Suite 200 Lakewood, Colorado 80232

Attn: Mr. Brian R. Partington

Michelle A. Johnson

Authorized for release by: 11/14/2011 12:04:38 PM

Michelle Johnston Project Manager I

michelle.johnston@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

#### **GC/MS Semi VOA**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
Metals	

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

#### **General Chemistry**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

Reporting Limit RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

Job ID: 280-22233-1

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

Client: Pinyon Env. Eng. Resources, Inc.
Project: US 6 & BNSF
Report Number: 280-22233-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

The samples were received on 10/31/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.8 C.

Sample TRIP BLANK was received at the laboratory, but was not listed on the associated chain-of-custody. The sample was logged for method 624, per containers received. The client was notified on November 1, 2011.

No other anomalies were encountered during sample receipt.

#### **VOLATILE ORGANIC COMPOUNDS (GC-MS)**

Samples B-1 (280-22233-1) and TRIP BLANK (280-22233-2) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA Method 624. The sample was analyzed on 11/03/2011.

The MS/MSD analysis associated with analytical batch 280-94686 was performed on a sample from another client and/or job. The MS/MSD exhibited spike compound recoveries outside the QC limits for 2-Chloroethyl vinyl ether. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the VOC analyses.

All other quality control parameters were within the acceptance limits.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample B-1 (280-22233-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA Method 625. The sample was prepared on 11/01/2011 and analyzed on 11/08/2011.

The internal clock on the instrument computer was updated for Mountain Standard Time after this auto-run was started. This update took place automatically at about 10:38 MST. Because of this, the extracts that were analyzed before this time have an "Injection Time" that is off by one hour. For example, the DFTPP injection has a time stamp of 10:39. This was actually 09:39 MST. Due to this, the 24 hour tune time for 625 would be 09:39 on November 9, 2011. All samples met the required tune time for the appropriate method, and the clock is correct moving forward.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 280-94202/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The method required MS/MSD analyses could not be performed for prep batch 280-94202, due to insufficient sample volume. Method

TestAmerica Denver

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Job ID: 280-22233-1 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

precision and accuracy have been verified by the acceptable LCS/LCSD analyses data.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL RECOVERABLE METALS (ICP)**

Sample B-1 (280-22233-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The sample was prepared on 11/04/2011 and analyzed on 11/06/2011 and 11/07/2011.

The MS/MSD associated with prep batch 280-93842 was performed on sample B-1 (280-22233-1). The MS/MSD exhibited spike compound recoveries outside the QC control limits for Aluminum. In addition, the MS/SMD spike compound recoveries and RPD data could not be reliably calculated for Iron because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The Serial dilution was performed on sample B-1 (280-22233-1) indicates that physical and chemical interferences are present for Aluminum in prep batch 280-93845.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL RECOVERABLE METALS (ICP/MS)**

Sample B-1 (280-22233-1) was analyzed for total recoverable metals in accordance with EPA Method 200.8. The sample was prepared on 11/06/2011 and analyzed on 11/07/2011.

Cadmium, Molybdenum and Zinc were detected in method blank MB 280-93846/1-A at levels that were less than one half the reporting limits; therefore, corrective action was deemed unnecessary. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The MS/MSD associated with prep batch 280-93846 was performed on sample B-1 (280-22233-1). The MS/MSD exhibited spike compound recoveries outside the control limits for several analytes. In addition, the MS/MSD spike compound recoveries and relative percent difference (RPD) data could not be reliably calculated for several analytes because the sample concentrations were greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### POTENTIALLY DISSOLVED METALS (ICP)

Sample B-1 (280-22233-1) was analyzed for Metals (ICP) in accordance with EPA 200.7. The sample was prepared on 11/02/2011 and analyzed on 11/07/2011.

The MS/MSD associated with prep batch 280-94501 was performed on a sample from another client and/or job. The MS/SMD spike compound recoveries and RPD data could not be reliably calculated for Iron because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Job ID: 280-22233-1 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

Refer to the QC report for details.

No other difficulties were encountered during the metals (ICP) analysis.

All quality control parameters were within the acceptance limits.

#### POTENTIALLY DISSOLVED METALS (ICP/MS)

Sample B-1 (280-22233-1) was analyzed for potentially dissolved metals in accordance with EPA Method 200.8. The sample was prepared and analyzed on 11/04/2011.

Cadmium and Molybdenum were detected in method blank MB 280-93801/1-B at levels that were less than one half the reporting limits; therefore, corrective action was deemed unnecessary. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The MS/MSD associated with prep batch 280-93819 was performed on a sample from another client and/or job. The MS/MSD exhibited a spike compound recovery outside the control limits for Zinc. In addition, the MS/MSD spike compound recoveries and RPD data could not be reliably calculated for Barium and Manganese because the sample concentrations were greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL MERCURY (CVAA)**

Sample B-1 (280-22233-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The sample was prepared and analyzed on 11/04/2011.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

#### POTENTIALLY DISSOLVED MERCURY (CVAA)

Sample B-1 (280-22233-1) was analyzed for mercury in accordance with EPA Method 245.1. The sample was prepared and analyzed on 11/07/2011.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

#### TOTAL DISSOLVED SOLIDS

Sample B-1 (280-22233-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 11/04/2011.

Due to matrix interference, a reduced aliquot size was used for the analysis sample B-1 (280-22233-1). Reporting limits and method detection limits have been elevated accordingly. Also, a constant weight was not achieved after three drying cycles for sample B-1 (280-22233-1).

No other difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

### Job ID: 280-22233-1 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

#### **TOTAL SUSPENDED SOLIDS**

Sample B-1 (280-22233-1) was analyzed for total suspended solids in accordance with SM20 2540D. The sample was analyzed on 11/02/2011.

Due to matrix interference, a reduced aliquot size was used for the analysis sample B-1 (280-22233-1). Reporting limits and method detection limits have been elevated accordingly.

The Total Suspended Solids sample duplicate analysis data associated with analytical batch 280-94508 exhibited RPD data outside the QC limits. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

#### **HEXAVALENT CHROMIUM**

Sample B-1 (280-22233-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The sample was analyzed on 11/01/2011.

The Hexavalent Chromium sample duplicate analysis data associated with analytical batch 280-94138 exhibited RPD data outside the QC limits. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the hex chrome analysis.

All quality control parameters were within the acceptance limits.

#### TRIVALENT CHROMIUM

Sample B-1 (280-22233-1) was analyzed for trivalent chromium in accordance with SW-846 7196A\_CR3. The sample was analyzed on 11/09/2011.

No difficulties were encountered during the trivalent chromium analysis.

All quality control parameters were within the acceptance limits.

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TestAmerica Job ID: 280-22233-1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Client Sample ID: B-1

Lab Sample ID: 280-22233-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac D	Method	Prep Type
Methyl tert-butyl ether	2.9	J	20	0.25	ug/L		624	Total/NA
Bis(2-ethylhexyl) phthalate	2.9	JB	9.5	0.53	ug/L	1	625	Total/NA
Aluminum	5700		100	18	ug/L	1	200.7 Rev 4.4	Total Recove
Iron	4600		100	22	ug/L	1	200.7 Rev 4.4	Total Recove
Aluminum	4300		100	18	ug/L	1	200.7 Rev 4.4	Potentially Di
Iron	3100		100	22	ug/L	1	200.7 Rev 4.4	Potentially Di
Antimony	0.25	J	2.0	0.16	ug/L	1	200.8	Total Recove
Arsenic	55		5.0	0.50	ug/L	1	200.8	Total Recove
Barium	1800		1.0	0.38	ug/L	1	200.8	Total Recove
Beryllium	17		1.0	0.15	ug/L	1	200.8	Total Recove
Cadmium	3.4	В	1.0	0.040	ug/L	1	200.8	Total Recove
Chromium	170		3.0	0.88	ug/L	1	200.8	Total Recove
Copper	280		2.0	0.20	ug/L	1	200.8	Total Recove
Lead	250		1.0	0.10	ug/L	1	200.8	Total Recove
Manganese	3400		2.0		ug/L	1	200.8	Total Recove
Molybdenum	3.1	В	2.0	0.040	ug/L	1	200.8	Total Recove
Nickel	130		2.0	0.28	ug/L	1	200.8	Total Recove
Selenium	7.5		5.0	1.0	ug/L	1	200.8	Total Recove
Silver	0.73	J	1.0	0.020	ug/L	1	200.8	Total Recove
Thallium	3.1		1.0	0.066	ug/L	1	200.8	Total Recove
Uranium	58		1.0	0.030	ug/L	1	200.8	Total Recove
Zinc	1000	В	10	2.0	ug/L	1	200.8	Total Recove
Arsenic	7.2		5.0	0.50	ug/L	1	200.8	Potentially D
Barium	1000		1.0	0.38	ug/L	1	200.8	Potentially D
Beryllium	6.7		1.0	0.15	ug/L	1	200.8	Potentially D
Cadmium	1.3	В	1.0	0.040	ug/L	1	200.8	Potentially D
Chromium	6.2		3.0	0.88	ug/L	1	200.8	Potentially D
Copper	60		2.0	0.20	ug/L	1	200.8	Potentially D
Lead	43		1.0	0.10	ug/L	1	200.8	Potentially D
Manganese	1800		2.0	0.51	ug/L	1	200.8	Potentially D
Molybdenum	2.5	В	2.0	0.040	ug/L	1	200.8	Potentially D
Nickel	19		2.0			1	200.8	Potentially D
Selenium	3.7	J	5.0	1.0	ug/L	1	200.8	Potentially D
Uranium	16		1.0	0.030	<del>.</del>	1	200.8	Potentially D
Zinc	260		10		ug/L	1	200.8	Potentially D
Mercury	0.17	J	0.20	0.027		1	245.1	Total/NA
Cr (III)	0.17		0.020	0.020		1	7196A	Total/NA
Total Dissolved Solids	720		200		mg/L	1	SM 2540C	Total/NA
Total Suspended Solids	12000		250		mg/L	1	SM 2540D	Total/NA

Client Sam	ple	ID:	TRIP	BLANK	ί
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Lab Sample ID: 280-22233-2

Analyte	Result Qualifie		MDL	Unit	Dil Fac	D	Method	Pr	ер Туре
Acetone	9.0 J	20	1.9	ug/L	1	_	624	To	tal/NA

TestAmerica Denver

# **Method Summary**

Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22233-1 Project/Site: US 6 and BNSF

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL DEN
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL DEN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
7196A	Chromium, Hexavalent	SW846	TAL DEN
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN

#### **Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# **Sample Summary**

Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22233-1

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Proiect/Site: US	6 and BNSF

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-22233-1	B-1	Water	10/31/11 10:07	10/31/11 16:30
280-22233-2	TRIP BLANK	Water	10/31/11 10:07	10/31/11 16:30

Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22233-1

Project/Site: US 6 and BNSF

# Method: 624 - Volatile Organic Compounds (GC/MS)

Client Sample ID: B-1 Lab Sample ID: 280-22233-1 Date Collected: 10/31/11 10:07 **Matrix: Water** 

Date Received: 10/31/11 16:30

Analyte	Result Qualifier			Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND ND	1.0	0.16	ug/L			11/03/11 23:03	1
Dichlorobromomethane	ND	1.0	0.17	ug/L			11/03/11 23:03	1
Bromoform	ND	1.0	0.19	ug/L			11/03/11 23:03	1
Bromomethane	ND	2.0	0.21	ug/L			11/03/11 23:03	1
Carbon tetrachloride	ND	1.0	0.19	ug/L			11/03/11 23:03	1
Chlorobenzene	ND	1.0	0.17	ug/L			11/03/11 23:03	1
Chlorodibromomethane	ND	1.0	0.17	ug/L			11/03/11 23:03	1
Chloroethane	ND	2.0	0.41	ug/L			11/03/11 23:03	1
2-Chloroethyl vinyl ether	ND	3.0	0.74	ug/L			11/03/11 23:03	1
Chloroform	ND	1.0	0.16	ug/L			11/03/11 23:03	1
Chloromethane	ND	2.0	0.30	ug/L			11/03/11 23:03	1
1,4-Dichlorobenzene	ND	1.0	0.16	ug/L			11/03/11 23:03	1
1,3-Dichlorobenzene	ND	1.0	0.16	ug/L			11/03/11 23:03	1
1,2-Dichlorobenzene	ND	1.0	0.13	ug/L			11/03/11 23:03	1
Dichlorodifluoromethane	ND	2.0	0.31	ug/L			11/03/11 23:03	1
1,1-Dichloroethane	ND	1.0	0.16	ug/L			11/03/11 23:03	1
1,2-Dichloroethane	ND	1.0	0.13	-			11/03/11 23:03	1
cis-1,2-Dichloroethene	ND	1.0	0.15	•			11/03/11 23:03	1
trans-1,2-Dichloroethene	ND	1.0		ug/L			11/03/11 23:03	1
1,1-Dichloroethene	ND	1.0		ug/L			11/03/11 23:03	1
1,2-Dichloropropane	ND	1.0		ug/L			11/03/11 23:03	1
cis-1,3-Dichloropropene	ND	1.0		ug/L			11/03/11 23:03	1
trans-1,3-Dichloropropene	ND	3.0	0.19	-			11/03/11 23:03	1
Ethylbenzene	ND	1.0	0.16	_			11/03/11 23:03	1
Methylene Chloride	ND	5.0		ug/L			11/03/11 23:03	1
1,1,2,2-Tetrachloroethane	ND	1.0		ug/L			11/03/11 23:03	1
Tetrachloroethene	ND	1.0		ug/L			11/03/11 23:03	1
Toluene	ND	1.0		ug/L			11/03/11 23:03	· · · · · · 1
1,1,1-Trichloroethane	ND	1.0	0.16	-			11/03/11 23:03	1
1,1,2-Trichloroethane	ND	1.0		ug/L			11/03/11 23:03	1
Trichloroethene	ND	1.0		ug/L			11/03/11 23:03	· · · · · · · · · · · · · · · · · · · ·
Trichlorofluoromethane	ND	2.0		ug/L			11/03/11 23:03	1
Vinyl chloride	ND	1.0	0.23	-			11/03/11 23:03	1
Xylenes, Total	ND ND	2.0		ug/L			11/03/11 23:03 11/03/11 23:03	1
Acetone	ND ND	20 100		ug/L				1
Acrolein				ug/L			11/03/11 23:03	ا ۔۔۔۔۔
Acrylonitrile	ND	100		ug/L			11/03/11 23:03	1
2-Butanone (MEK)	ND	20		ug/L			11/03/11 23:03	1
Carbon disulfide	ND	5.0		ug/L			11/03/11 23:03	1
1,2-Dibromo-3-Chloropropane	ND	10		ug/L			11/03/11 23:03	1
Ethylene Dibromide	ND	5.0		ug/L			11/03/11 23:03	1
1,2-Dichloroethene, Total	ND	5.0		ug/L			11/03/11 23:03	
1,3-Dichloropropene, Total	ND	5.0		ug/L			11/03/11 23:03	1
1,4-Dioxane	ND	250		ug/L			11/03/11 23:03	1
Hexane	ND	5.0		ug/L			11/03/11 23:03	1
2-Hexanone	ND	20		ug/L			11/03/11 23:03	1
4-Methyl-2-pentanone (MIBK)	ND	20	0.49	ug/L			11/03/11 23:03	1
Methyl tert-butyl ether	2.9 J	20	0.25	ug/L			11/03/11 23:03	1
Styrene	ND	5.0	0.17	ug/L			11/03/11 23:03	1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B-1

Date Collected: 10/31/11 10:07 Date Received: 10/31/11 16:30

**Client Sample ID: TRIP BLANK** 

Date Collected: 10/31/11 10:07

Date Received: 10/31/11 16:30

Carbon tetrachloride

cis-1.2-Dichloroethene

Lab Sample ID: 280-22233-1

**Matrix: Water** 

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND ND	5.0	0.17	ug/L			11/03/11 23:03	1
1,2,3-Trichloropropane	ND	5.0	0.27	ug/L			11/03/11 23:03	1
Dibromomethane	ND	5.0	0.17	ug/L			11/03/11 23:03	1
Vinyl acetate	ND	10	0.94	ug/L			11/03/11 23:03	1
m-Xylene & p-Xylene	ND	2.0	0.19	ug/L			11/03/11 23:03	1
o-Xylene	ND	1.0	0.19	ug/L			11/03/11 23:03	1
Total BTEX	ND	1.0	0.16	ug/L			11/03/11 23:03	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		80 - 120	_		11/03/11 23:03	1
1,2-Dichloroethane-d4 (Surr)	103		73 - 122			11/03/11 23:03	1
4-Bromofluorobenzene (Surr)	102		79 - 119			11/03/11 23:03	1

Lab Sample ID: 280-22233-2

11/03/11 23:27

11/03/11 23:27

**Matrix: Water** 

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 1 0 11/03/11 23:27 Benzene 0.16 ug/L Dichlorobromomethane ND 1.0 11/03/11 23:27 0.17 ug/L Bromoform ND 1.0 0.19 ug/L 11/03/11 23:27 Bromomethane ND 2.0 0.21 ug/L 11/03/11 23:27

1.0

0.19 ug/L

0.15 ug/L

ND

ND

Chlorobenzene ND 1.0 0.17 ug/L 11/03/11 23:27 Chlorodibromomethane ND 1.0 0.17 ug/L 11/03/11 23:27 Chloroethane ND 2.0 0.41 ug/L 11/03/11 23:27 2-Chloroethyl vinyl ether ND 3.0 0.74 ug/L 11/03/11 23:27 Chloroform ND 1.0 0.16 ug/L 11/03/11 23:27 Chloromethane ND 2.0 0.30 ug/L 11/03/11 23:27 ND 1.0 0.16 ug/L 1,4-Dichlorobenzene 11/03/11 23:27 1,3-Dichlorobenzene ND 1.0 0.16 ug/L 11/03/11 23:27 ND 1.2-Dichlorobenzene 1.0 0.13 ug/L 11/03/11 23:27 Dichlorodifluoromethane ND 2.0 0.31 ug/L 11/03/11 23:27 1,1-Dichloroethane ND 1.0 0.16 ug/L 11/03/11 23:27 1,2-Dichloroethane ND 1.0 0.13 ug/L 11/03/11 23:27

trans-1,2-Dichloroethene ND 1.0 0.15 ug/L 11/03/11 23:27 1,1-Dichloroethene ND 1.0 0.14 ug/L 11/03/11 23:27 1,2-Dichloropropane ND 1.0 0.13 ug/L 11/03/11 23:27 cis-1,3-Dichloropropene ND 1.0 0.16 ug/L 11/03/11 23:27 trans-1,3-Dichloropropene ND 3.0 0.19 ug/L 11/03/11 23:27

1.0

Ethylbenzene ND 1.0 0.16 ug/L 11/03/11 23:27 Methylene Chloride ND 5.0 0.32 ug/L 11/03/11 23:27 1,1,2,2-Tetrachloroethane ND 1.0 0.20 ug/L 11/03/11 23:27 ND Tetrachloroethene 1.0 0.20 ug/L 11/03/11 23:27 ND 1.0 11/03/11 23:27 Toluene 0.17 ug/L

ND 1,1,1-Trichloroethane 1.0 0.16 ug/L 11/03/11 23:27 1,1,2-Trichloroethane ND 1.0 0.32 11/03/11 23:27 ug/L Trichloroethene ND 10 0.16 ug/L 11/03/11 23:27 Trichlorofluoromethane ND 2.0 0.29 ug/L 11/03/11 23:27

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK Date Collected: 10/31/11 10:07

Date Received: 10/31/11 16:30

Lab Sample ID: 280-22233-2

Matrix: Water

2-Butanone (MEK)  ND  20  1.8 ug/L  11/03/11 23:27  1 1,2-Dibromo-3-Chloropropane  ND  10  0.81 ug/L  11/03/11 23:27  1 1,2-Dibromo-3-Chloropropane  ND  10  0.81 ug/L  11/03/11 23:27  1 1,2-Dichloroethene, Total  ND  5.0  0.18 ug/L  11/03/11 23:27  1 1,2-Dichloropropane, Total  ND  5.0  0.15 ug/L  11/03/11 23:27  1 1,3-Dichloropropene, Total  ND  5.0  0.16 ug/L  11/03/11 23:27  1 1,4-Dioxane  ND  250  71 ug/L  11/03/11 23:27  1 14-Methyl-2-pentanone (MIBK)  ND  20  1.4 ug/L  11/03/11 23:27  1 4-Methyl-2-pentanone (MIBK)  ND  20  0.49 ug/L  11/03/11 23:27  1 Methyl tert-butyl ether  ND  20  0.25 ug/L  11/03/11 23:27  1 Styrene  ND  5.0  0.17 ug/L  11/03/11 23:27  1 1,1,2-Tetrachloroptopane  ND  5.0  0.17 ug/L  11/03/11 23:27  1 1,1,2-Tetrachloroptopane  ND  5.0  0.17 ug/L  11/03/11 23:27  1 1,1,2-Tetrachloroptopane  ND  5.0  0.17 ug/L  11/03/11 23:27  1 1,2,3-Trichloropropane	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone         9.0 J         20         1.9 ug/L         11/03/11 23:27         1           Acrolein         ND         100         2.8 ug/L         11/03/11 23:27         1           Acrylonitrile         ND         100         1.4 ug/L         11/03/11 23:27         1           2-Butanone (MEK)         ND         20         1.8 ug/L         11/03/11 23:27         1           2-Butanone (disulfide         ND         5.0         0.45 ug/L         11/03/11 23:27         1           1.2-Dibromo-3-Chloropropane         ND         10         0.81 ug/L         11/03/11 23:27         1           Ethylene Dibromide         ND         5.0         0.18 ug/L         11/03/11 23:27         1           1,2-Dichloropropane         ND         5.0         0.18 ug/L         11/03/11 23:27         1           1,2-Dichloroptide         ND         5.0         0.18 ug/L         11/03/11 23:27         1           1,2-Dichloroptide         ND         5.0         0.18 ug/L         11/03/11 23:27         1           1,2-Dichloroptide         ND         5.0         0.16 ug/L         11/03/11 23:27         1           1,4-Dioxane         ND         5.0         0.16 ug/L         11/03/11 23:27         1<	Vinyl chloride	ND		1.0	0.17	ug/L			11/03/11 23:27	1
Acrolein         ND         100         2.8         ug/L         11/03/11 23:27         1           Acrylonitrile         ND         100         1.4         ug/L         11/03/11 23:27         1           2-Butanone (MEK)         ND         20         1.8         ug/L         11/03/11 23:27         1           Carbon disulfide         ND         5.0         0.45         ug/L         11/03/11 23:27         1           1,2-Dichoro-3-Chloropropane         ND         10         0.81         ug/L         11/03/11 23:27         1           Ethylene Dibromide         ND         5.0         0.18         ug/L         11/03/11 23:27         1           1,2-Dichloroethene, Total         ND         5.0         0.18         ug/L         11/03/11 23:27         1           1,3-Dichloropropene, Total         ND         5.0         0.16         ug/L         11/03/11 23:27         1           1,4-Dioxane         ND         5.0         0.16         ug/L         11/03/11 23:27         1           2-Hexane         ND         5.0         0.42         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         0.49         ug/L         1	Xylenes, Total	ND		2.0	0.19	ug/L			11/03/11 23:27	1
Acrylonitrile         ND         100         1.4         ug/L         11/03/11 23:27         1           2-Butanone (MEK)         ND         20         1.8         ug/L         11/03/11 23:27         1           Carbon disulfide         ND         5.0         0.45         ug/L         11/03/11 23:27         1           1,2-Dichromo-3-Chloropropane         ND         10         0.81         ug/L         11/03/11 23:27         1           Ethylene Dibromide         ND         5.0         0.18         ug/L         11/03/11 23:27         1           1,2-Dichloroptenen, Total         ND         5.0         0.16         ug/L         11/03/11 23:27         1           1,4-Dioxane         ND         5.0         0.16         ug/L         11/03/11 23:27         1           Hexane         ND         5.0         0.42         ug/L         11/03/11 23:27         1           2-Hexanone         ND         5.0         0.42         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         1.4         ug/L         11/03/11 23:27         1           Methyl tert-butyl ether         ND         5.0         0.17         ug/L         11/	Acetone	9.0	J	20	1.9	ug/L			11/03/11 23:27	1
2-Butanone (MEK)       ND       20       1.8       ug/L       11/03/11 23:27       1         Carbon disulfide       ND       5.0       0.45       ug/L       11/03/11 23:27       1         1,2-Dibromo-3-Chloropropane       ND       10       0.81       ug/L       11/03/11 23:27       1         Ethylene Dibromide       ND       5.0       0.18       ug/L       11/03/11 23:27       1         1,2-Dichloroethene, Total       ND       5.0       0.15       ug/L       11/03/11 23:27       1         1,3-Dichloropropene, Total       ND       5.0       0.16       ug/L       11/03/11 23:27       1         1,4-Dioxane       ND       5.0       0.16       ug/L       11/03/11 23:27       1         Hexane       ND       5.0       0.42       ug/L       11/03/11 23:27       1         2-Hexanone       ND       20       1.4       ug/L       11/03/11 23:27       1         4-Methyl-2-pentanone (MIBK)       ND       20       0.49       ug/L       11/03/11 23:27       1         Styrene       ND       5.0       0.17       ug/L       11/03/11 23:27       1         Styrene       ND       5.0       0.17       ug/	Acrolein	ND		100	2.8	ug/L			11/03/11 23:27	1
Carbon disulfide         ND         5.0         0.45         ug/L         11/03/11 23:27         1           1,2-Dibromo-3-Chloropropane         ND         10         0.81         ug/L         11/03/11 23:27         1           Ethylene Dibromide         ND         5.0         0.18         ug/L         11/03/11 23:27         1           1,2-Dichloroethene, Total         ND         5.0         0.15         ug/L         11/03/11 23:27         1           1,3-Dichloropropene, Total         ND         5.0         0.16         ug/L         11/03/11 23:27         1           1,4-Dioxane         ND         250         71         ug/L         11/03/11 23:27         1           Hexane         ND         5.0         0.42         ug/L         11/03/11 23:27         1           2-Hexanone         ND         5.0         0.42         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         1.4         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         0.49         ug/L         11/03/11 23:27         1           Styrene         ND         5.0         0.17         ug/L	Acrylonitrile	ND		100	1.4	ug/L			11/03/11 23:27	1
1,2-Dibromo-3-Chloropropane         ND         10         0.81         ug/L         11/03/11 23:27         1           Ethylene Dibromide         ND         5.0         0.18         ug/L         11/03/11 23:27         1           1,2-Dichloroethene, Total         ND         5.0         0.15         ug/L         11/03/11 23:27         1           1,3-Dichloropropene, Total         ND         5.0         0.16         ug/L         11/03/11 23:27         1           1,4-Dioxane         ND         250         71         ug/L         11/03/11 23:27         1           Hexane         ND         5.0         0.42         ug/L         11/03/11 23:27         1           2-Hexanone         ND         20         1.4         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         0.49         ug/L         11/03/11 23:27         1           Methyl tert-butyl ether         ND         5.0         0.17         ug/L         11/03/11 23:27         1           Styrene         ND         5.0         0.17         ug/L         11/03/11 23:27         1           1,1,1,2-Tertachloroethane         ND         5.0         0.17         ug/L	2-Butanone (MEK)	ND		20	1.8	ug/L			11/03/11 23:27	1
Ethylene Dibromide         ND         5.0         0.18         ug/L         11/03/11 23:27         1           1,2-Dichloroethene, Total         ND         5.0         0.15         ug/L         11/03/11 23:27         1           1,3-Dichloropropene, Total         ND         5.0         0.16         ug/L         11/03/11 23:27         1           1,4-Dioxane         ND         250         71         ug/L         11/03/11 23:27         1           Hexane         ND         5.0         0.42         ug/L         11/03/11 23:27         1           2-Hexanone         ND         20         1.4         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         0.49         ug/L         11/03/11 23:27         1           Methyl tert-butyl ether         ND         20         0.25         ug/L         11/03/11 23:27         1           Styrene         ND         5.0         0.17         ug/L         11/03/11 23:27         1           1,1,1,2-Tetrachloroethane         ND         5.0         0.17         ug/L         11/03/11 23:27         1           1,2,3-Trichloropropane         ND         5.0         0.27         ug/L	Carbon disulfide	ND		5.0	0.45	ug/L			11/03/11 23:27	1
1,2-Dichloroethene, Total       ND       5.0       0.15       ug/L       11/03/11 23:27       1         1,3-Dichloropropene, Total       ND       5.0       0.16       ug/L       11/03/11 23:27       1         1,4-Dioxane       ND       250       71       ug/L       11/03/11 23:27       1         Hexane       ND       5.0       0.42       ug/L       11/03/11 23:27       1         2-Hexanone       ND       20       1.4       ug/L       11/03/11 23:27       1         4-Methyl-2-pentanone (MIBK)       ND       20       0.49       ug/L       11/03/11 23:27       1         Methyl tert-butyl ether       ND       20       0.25       ug/L       11/03/11 23:27       1         Styrene       ND       5.0       0.17       ug/L       11/03/11 23:27       1         1,1,1,2-Tetrachloroethane       ND       5.0       0.17       ug/L       11/03/11 23:27       1         1,2,3-Trichloropropane       ND       5.0       0.27       ug/L       11/03/11 23:27       1         Dibromomethane       ND       5.0       0.17       ug/L       11/03/11 23:27       1         Vinyl acetate       ND       2.0       0.19	1,2-Dibromo-3-Chloropropane	ND		10	0.81	ug/L			11/03/11 23:27	1
1,3-Dichloropropene, Total       ND       5.0       0.16 ug/L       11/03/11 23:27       1         1,4-Dioxane       ND       250       71 ug/L       11/03/11 23:27       1         Hexane       ND       5.0       0.42 ug/L       11/03/11 23:27       1         2-Hexanone       ND       20       1.4 ug/L       11/03/11 23:27       1         4-Methyl-2-pentanone (MIBK)       ND       20       0.49 ug/L       11/03/11 23:27       1         Methyl tert-butyl ether       ND       20       0.25 ug/L       11/03/11 23:27       1         Styrene       ND       5.0       0.17 ug/L       11/03/11 23:27       1         1,1,1,2-Tetrachloroethane       ND       5.0       0.17 ug/L       11/03/11 23:27       1         1,2,3-Trichloropropane       ND       5.0       0.17 ug/L       11/03/11 23:27       1         Dibromomethane       ND       5.0       0.17 ug/L       11/03/11 23:27       1         Vinyl acetate       ND       10       0.94 ug/L       11/03/11 23:27       1         n-Xylene & p-Xylene       ND       1.0       0.19 ug/L       11/03/11 23:27       1	Ethylene Dibromide	ND		5.0	0.18	ug/L			11/03/11 23:27	1
1,4-Dioxane       ND       250       71       ug/L       11/03/11 23:27       1         Hexane       ND       5.0       0.42       ug/L       11/03/11 23:27       1         2-Hexanone       ND       20       1.4       ug/L       11/03/11 23:27       1         4-Methyl-2-pentanone (MIBK)       ND       20       0.49       ug/L       11/03/11 23:27       1         Methyl tert-butyl ether       ND       20       0.25       ug/L       11/03/11 23:27       1         Styrene       ND       5.0       0.17       ug/L       11/03/11 23:27       1         1,1,1,2-Tetrachloroethane       ND       5.0       0.17       ug/L       11/03/11 23:27       1         1,2,3-Trichloropropane       ND       5.0       0.27       ug/L       11/03/11 23:27       1         Dibromomethane       ND       5.0       0.17       ug/L       11/03/11 23:27       1         Vinyl acetate       ND       10       0.94       ug/L       11/03/11 23:27       1         m-Xylene & p-Xylene       ND       1.0       0.19       ug/L       11/03/11 23:27       1         o-Xylene       ND       1.0       0.19       ug/L	1,2-Dichloroethene, Total	ND		5.0	0.15	ug/L			11/03/11 23:27	1
Hexane         ND         5.0         0.42         ug/L         11/03/11 23:27         1           2-Hexanone         ND         20         1.4         ug/L         11/03/11 23:27         1           4-Methyl-2-pentanone (MIBK)         ND         20         0.49         ug/L         11/03/11 23:27         1           Methyl tert-butyl ether         ND         20         0.25         ug/L         11/03/11 23:27         1           Styrene         ND         5.0         0.17         ug/L         11/03/11 23:27         1           1,1,1,2-Tetrachloroethane         ND         5.0         0.17         ug/L         11/03/11 23:27         1           1,2,3-Trichloropropane         ND         5.0         0.27         ug/L         11/03/11 23:27         1           Dibromomethane         ND         5.0         0.17         ug/L         11/03/11 23:27         1           Vinyl acetate         ND         10         0.94         ug/L         11/03/11 23:27         1           m-Xylene & p-Xylene         ND         1.0         0.19         ug/L         11/03/11 23:27         1           o-Xylene         ND         1.0         0.19         ug/L         11/03/11 23:27	1,3-Dichloropropene, Total	ND		5.0	0.16	ug/L			11/03/11 23:27	1
2-Hexanone ND 20 1.4 ug/L 11/03/11 23:27 1 4-Methyl-2-pentanone (MIBK) ND 20 0.49 ug/L 11/03/11 23:27 1 Methyl tert-butyl ether ND 20 0.25 ug/L 11/03/11 23:27 1 Styrene ND 5.0 0.17 ug/L 11/03/11 23:27 1 1,1,1,2-Tetrachloroethane ND 5.0 0.17 ug/L 11/03/11 23:27 1 1,2,3-Trichloropropane ND 5.0 0.27 ug/L 11/03/11 23:27 1 Dibromomethane ND 5.0 0.27 ug/L 11/03/11 23:27 1 Dibromomethane ND 5.0 0.27 ug/L 11/03/11 23:27 1 Vinyl acetate ND 10 0.94 ug/L 11/03/11 23:27 1 m-Xylene & p-Xylene ND 2.0 0.19 ug/L 11/03/11 23:27 1 o-Xylene ND 1.0 0.19 ug/L 11/03/11 23:27 1	1,4-Dioxane	ND		250	71	ug/L			11/03/11 23:27	1
4-Methyl-2-pentanone (MIBK) ND 20 0.49 ug/L 11/03/11 23:27 1 Methyl tert-butyl ether ND 20 0.25 ug/L 11/03/11 23:27 1 Styrene ND 5.0 0.17 ug/L 11/03/11 23:27 1 1,1,1,2-Tetrachloroethane ND 5.0 0.17 ug/L 11/03/11 23:27 1 1,2,3-Trichloropropane ND 5.0 0.27 ug/L 11/03/11 23:27 1 Dibromomethane ND 5.0 0.27 ug/L 11/03/11 23:27 1 Dibromomethane ND 5.0 0.17 ug/L 11/03/11 23:27 1 Vinyl acetate ND 10 0.94 ug/L 11/03/11 23:27 1 m-Xylene & p-Xylene ND 1.0 0.19 ug/L 11/03/11 23:27 1 0-Xylene ND 1.0 0.19 ug/L 11/03/11 23:27 1	Hexane	ND		5.0	0.42	ug/L			11/03/11 23:27	1
Methyl tert-butyl ether         ND         20         0.25 ug/L         11/03/11 23:27         1           Styrene         ND         5.0         0.17 ug/L         11/03/11 23:27         1           1,1,1,2-Tetrachloroethane         ND         5.0         0.17 ug/L         11/03/11 23:27         1           1,2,3-Trichloropropane         ND         5.0         0.27 ug/L         11/03/11 23:27         1           Dibromomethane         ND         5.0         0.17 ug/L         11/03/11 23:27         1           Vinyl acetate         ND         10         0.94 ug/L         11/03/11 23:27         1           m-Xylene & p-Xylene         ND         2.0         0.19 ug/L         11/03/11 23:27         1           o-Xylene         ND         1.0         0.19 ug/L         11/03/11 23:27         1	2-Hexanone	ND		20	1.4	ug/L			11/03/11 23:27	1
Styrene         ND         5.0         0.17 ug/L         11/03/11 23:27         1           1,1,1,2-Tetrachloroethane         ND         5.0         0.17 ug/L         11/03/11 23:27         1           1,2,3-Trichloropropane         ND         5.0         0.27 ug/L         11/03/11 23:27         1           Dibromomethane         ND         5.0         0.17 ug/L         11/03/11 23:27         1           Vinyl acetate         ND         10         0.94 ug/L         11/03/11 23:27         1           m-Xylene & p-Xylene         ND         2.0         0.19 ug/L         11/03/11 23:27         1           o-Xylene         ND         1.0         0.19 ug/L         11/03/11 23:27         1	4-Methyl-2-pentanone (MIBK)	ND		20	0.49	ug/L			11/03/11 23:27	1
1,1,1,2-Tetrachloroethane       ND       5.0       0.17 ug/L       11/03/11 23:27       1         1,2,3-Trichloropropane       ND       5.0       0.27 ug/L       11/03/11 23:27       1         Dibromomethane       ND       5.0       0.17 ug/L       11/03/11 23:27       1         Vinyl acetate       ND       10       0.94 ug/L       11/03/11 23:27       1         m-Xylene & p-Xylene       ND       2.0       0.19 ug/L       11/03/11 23:27       1         o-Xylene       ND       1.0       0.19 ug/L       11/03/11 23:27       1	Methyl tert-butyl ether	ND		20	0.25	ug/L			11/03/11 23:27	1
1,2,3-Trichloropropane       ND       5.0       0.27 ug/L       11/03/11 23:27       1         Dibromomethane       ND       5.0       0.17 ug/L       11/03/11 23:27       1         Vinyl acetate       ND       10       0.94 ug/L       11/03/11 23:27       1         m-Xylene & p-Xylene       ND       2.0       0.19 ug/L       11/03/11 23:27       1         o-Xylene       ND       1.0       0.19 ug/L       11/03/11 23:27       1	Styrene	ND		5.0	0.17	ug/L			11/03/11 23:27	1
Dibromomethane         ND         5.0         0.17 ug/L         11/03/11 23:27         1           Vinyl acetate         ND         10         0.94 ug/L         11/03/11 23:27         1           m-Xylene & p-Xylene         ND         2.0         0.19 ug/L         11/03/11 23:27         1           o-Xylene         ND         1.0         0.19 ug/L         11/03/11 23:27         1	1,1,1,2-Tetrachloroethane	ND		5.0	0.17	ug/L			11/03/11 23:27	1
Vinyl acetate         ND         10         0.94 ug/L         11/03/11 23:27         1           m-Xylene & p-Xylene         ND         2.0         0.19 ug/L         11/03/11 23:27         1           o-Xylene         ND         1.0         0.19 ug/L         11/03/11 23:27         1	1,2,3-Trichloropropane	ND		5.0	0.27	ug/L			11/03/11 23:27	1
m-Xylene & p-Xylene ND 2.0 0.19 ug/L 11/03/11 23:27 1 o-Xylene ND 1.0 0.19 ug/L 11/03/11 23:27 1	Dibromomethane	ND		5.0	0.17	ug/L			11/03/11 23:27	1
o-Xylene ND 1.0 0.19 ug/L 11/03/11 23:27 1	Vinyl acetate	ND		10	0.94	ug/L			11/03/11 23:27	1
7.1	m-Xylene & p-Xylene	ND		2.0	0.19	ug/L			11/03/11 23:27	1
Total BTEX ND 1.0 0.16 ug/L 11/03/11 23:27 1	o-Xylene	ND		1.0	0.19	ug/L			11/03/11 23:27	1
	Total BTEX	ND		1.0	0.16	ug/L			11/03/11 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prep	oared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		80 - 120			11/03/11 23:27	1
1,2-Dichloroethane-d4 (Surr)	85		73 - 122			11/03/11 23:27	1
4-Bromofluorobenzene (Surr)	80		79 - 119			11/03/11 23:27	1

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Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22233-1

Project/Site: US 6 and BNSF

# Method: 625 - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: B-1

Date Collected: 10/31/11 10:07 Date Received: 10/31/11 16:30 Lab Sample ID: 280-22233-1

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.5	0.27	ug/L		11/01/11 12:25	11/08/11 22:00	1
Benzidine	ND		140	47	ug/L		11/01/11 12:25	11/08/11 22:00	1
1,2,4-Trichlorobenzene	ND		9.5	0.27	ug/L		11/01/11 12:25	11/08/11 22:00	1
Hexachlorobenzene	ND		9.5	0.63	ug/L		11/01/11 12:25	11/08/11 22:00	1
Bis(2-chloroethyl)ether	ND		9.5	0.39	ug/L		11/01/11 12:25	11/08/11 22:00	1
2-Chloronaphthalene	ND		9.5	0.25	ug/L		11/01/11 12:25	11/08/11 22:00	1
2-Chlorophenol	ND		9.5	1.9	ug/L		11/01/11 12:25	11/08/11 22:00	1
2-Methylphenol	ND		9.5	0.93	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,4,6-Trichlorophenol	ND		19	0.28	ug/L		11/01/11 12:25	11/08/11 22:00	1
3,3'-Dichlorobenzidine	ND		47	1.9	ug/L		11/01/11 12:25	11/08/11 22:00	1
Hexachloroethane	ND		9.5	2.0	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,4-Dichlorophenol	ND		9.5	0.61	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,4-Dimethylphenol	ND		9.5	0.55	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,4-Dinitrotoluene	ND		9.5	1.6	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,6-Dinitrotoluene	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
1,2-Diphenylhydrazine(as	ND		9.5	0.22			11/01/11 12:25	11/08/11 22:00	1
Azobenzene)					-				
Fluoranthene	ND		9.5	0.19	ug/L		11/01/11 12:25	11/08/11 22:00	1
4-Bromophenyl phenyl ether	ND		9.5	0.41	ug/L		11/01/11 12:25	11/08/11 22:00	1
4-Chlorophenyl phenyl ether	ND		9.5	1.6	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,2'-Oxybis(1-chloropropane)	ND		9.5	0.27	ug/L		11/01/11 12:25	11/08/11 22:00	1
Bis(2-chloroethoxy)methane	ND		9.5	0.92	ug/L		11/01/11 12:25	11/08/11 22:00	1
Hexachlorobutadiene	ND		9.5	3.1	ug/L		11/01/11 12:25	11/08/11 22:00	1
Hexachlorocyclopentadiene	ND		47	1.5	ug/L		11/01/11 12:25	11/08/11 22:00	1
Isophorone	ND		9.5	0.20	ug/L		11/01/11 12:25	11/08/11 22:00	1
Naphthalene	ND		9.5	0.28	ug/L		11/01/11 12:25	11/08/11 22:00	1
Nitrobenzene	ND		9.5	0.77	ug/L		11/01/11 12:25	11/08/11 22:00	1
2-Nitrophenol	ND		19	0.37	ug/L		11/01/11 12:25	11/08/11 22:00	1
2,4-Dinitrophenol	ND		57	9.5	ug/L		11/01/11 12:25	11/08/11 22:00	1
4-Nitrophenol	ND		47	1.2	ug/L		11/01/11 12:25	11/08/11 22:00	1
4,6-Dinitro-2-methylphenol	ND		57	3.8	ug/L		11/01/11 12:25	11/08/11 22:00	1
N-Nitrosodimethylamine	ND		9.5	0.28	ug/L		11/01/11 12:25	11/08/11 22:00	1
N-Nitrosodi-n-propylamine	ND		9.5	0.33	ug/L		11/01/11 12:25	11/08/11 22:00	1
N-Nitrosodiphenylamine	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Pentachlorophenol	ND		57		ug/L		11/01/11 12:25	11/08/11 22:00	1
Phenol	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Bis(2-ethylhexyl) phthalate	2.9	JB	9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Butyl benzyl phthalate	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Di-n-butyl phthalate	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Di-n-octyl phthalate	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Diethyl phthalate	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	· 1
Dimethyl phthalate	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Benzo[a]anthracene	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	1
Benzo[a]pyrene	ND		9.5		ug/L		11/01/11 12:25	11/08/11 22:00	
Benzo[b]fluoranthene	ND ND		9.5 9.5		ug/L ug/L		11/01/11 12:25	11/08/11 22:00	1
Benzo[k]fluoranthene	ND ND		9.5		ug/L ug/L		11/01/11 12:25	11/08/11 22:00	1
									· · · · · · · · · · · · · · · · · · ·
Anthracene	ND ND		9.5 9.5		ug/L ug/L		11/01/11 12:25	11/08/11 22:00	
Acenaphthylene	טא		9.5	0.47	ug/L		11/01/11 12:25	11/08/11 22:00	1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B-1

Date Collected: 10/31/11 10:07

Lab Sample ID: 280-22233-1

Matrix: Water

Date Received: 10/31/11 16:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		9.5	0.47	ug/L		11/01/11 12:25	11/08/11 22:00	1
Fluorene	ND		9.5	0.29	ug/L		11/01/11 12:25	11/08/11 22:00	1
Phenanthrene	ND		9.5	0.25	ug/L		11/01/11 12:25	11/08/11 22:00	1
Dibenz(a,h)anthracene	ND		9.5	0.48	ug/L		11/01/11 12:25	11/08/11 22:00	1
Indeno[1,2,3-cd]pyrene	ND		9.5	0.62	ug/L		11/01/11 12:25	11/08/11 22:00	1
Pyrene	ND		9.5	0.35	ug/L		11/01/11 12:25	11/08/11 22:00	1
3 & 4 Methylphenol	ND		9.5	0.76	ug/L		11/01/11 12:25	11/08/11 22:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		36 - 120				11/01/11 12:25	11/08/11 22:00	1

%Recovery Qualifier	Limits	Prepared	Analyzed	Dil F
61	36 - 120	11/01/11 12:25	11/08/11 22:00	
64	30 - 120	11/01/11 12:25	11/08/11 22:00	
95	50 - 120	11/01/11 12:25	11/08/11 22:00	
69	45 - 120	11/01/11 12:25	11/08/11 22:00	
67	36 - 120	11/01/11 12:25	11/08/11 22:00	
57	52 - 120	11/01/11 12:25	11/08/11 22:00	
	61 64 95 69 67	61 36 - 120 64 30 - 120 95 50 - 120 69 45 - 120 67 36 - 120	61 36 - 120 11/01/11 12:25 64 30 - 120 11/01/11 12:25 95 50 - 120 11/01/11 12:25 69 45 - 120 11/01/11 12:25 67 36 - 120 11/01/11 12:25	61     36 - 120     11/01/11 12:25     11/08/11 22:00       64     30 - 120     11/01/11 12:25     11/08/11 22:00       95     50 - 120     11/01/11 12:25     11/08/11 22:00       69     45 - 120     11/01/11 12:25     11/08/11 22:00       67     36 - 120     11/01/11 12:25     11/08/11 22:00

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: B-1

Date Collected: 10/31/11 10:07 Date Received: 10/31/11 16:30 Lab Sample ID: 280-22233-1

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5700		100	18	ug/L	<del></del>	11/04/11 14:00	11/07/11 16:37	1
Iron	4600		100	22	ug/L		11/04/11 14:00	11/06/11 17:16	1

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 200.7 Rev 4.4 - Metals (ICP) - Potentially Dissolved

Client Sample ID: B-1 Lab Sample ID: 280-22233-1 Date Collected: 10/31/11 10:07 **Matrix: Water** Date Received: 10/31/11 16:30

ĺ	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Aluminum	4300		100	18	ug/L		11/02/11 05:30	11/07/11 23:39	1
	Iron	3100		100	22	ug/L		11/02/11 05:30	11/07/11 23:39	1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

### Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: B-1 Lab Sample ID: 280-22233-1

Date Collected: 10/31/11 10:07 Matrix: Water

Date Received: 10/31/11 16:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.25	J	2.0	0.16	ug/L		11/06/11 10:00	11/07/11 16:31	1
Arsenic	55		5.0	0.50	ug/L		11/06/11 10:00	11/07/11 16:31	1
Barium	1800		1.0	0.38	ug/L		11/06/11 10:00	11/07/11 16:31	1
Beryllium	17		1.0	0.15	ug/L		11/06/11 10:00	11/07/11 16:31	1
Cadmium	3.4	В	1.0	0.040	ug/L		11/06/11 10:00	11/07/11 16:31	1
Chromium	170		3.0	0.88	ug/L		11/06/11 10:00	11/07/11 16:31	1
Copper	280		2.0	0.20	ug/L		11/06/11 10:00	11/07/11 18:03	1
Lead	250		1.0	0.10	ug/L		11/06/11 10:00	11/07/11 16:31	1
Manganese	3400		2.0	0.51	ug/L		11/06/11 10:00	11/07/11 16:31	1
Molybdenum	3.1	В	2.0	0.040	ug/L		11/06/11 10:00	11/07/11 16:31	1
Nickel	130		2.0	0.28	ug/L		11/06/11 10:00	11/07/11 16:31	1
Selenium	7.5		5.0	1.0	ug/L		11/06/11 10:00	11/07/11 16:31	1
Silver	0.73	J	1.0	0.020	ug/L		11/06/11 10:00	11/07/11 16:31	1
Thallium	3.1		1.0	0.066	ug/L		11/06/11 10:00	11/07/11 16:31	1
Uranium	58		1.0	0.030	ug/L		11/06/11 10:00	11/07/11 16:31	1
Zinc	1000	В	10	2.0	ug/L		11/06/11 10:00	11/07/11 16:31	1

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: B-1 Lab Sample ID: 280-22233-1 Date Collected: 10/31/11 10:07 **Matrix: Water** 

Date Received: 10/31/11 16:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.16	ug/L		11/04/11 05:30	11/04/11 16:13	1
Arsenic	7.2		5.0	0.50	ug/L		11/04/11 05:30	11/04/11 16:13	1
Barium	1000		1.0	0.38	ug/L		11/04/11 05:30	11/04/11 16:13	1
Beryllium	6.7		1.0	0.15	ug/L		11/04/11 05:30	11/04/11 16:13	1
Cadmium	1.3	В	1.0	0.040	ug/L		11/04/11 05:30	11/04/11 16:13	1
Chromium	6.2		3.0	0.88	ug/L		11/04/11 05:30	11/04/11 16:13	1
Copper	60		2.0	0.20	ug/L		11/04/11 05:30	11/04/11 16:13	1
Lead	43		1.0	0.10	ug/L		11/04/11 05:30	11/04/11 16:13	1
Manganese	1800		2.0	0.51	ug/L		11/04/11 05:30	11/04/11 16:13	1
Molybdenum	2.5	В	2.0	0.040	ug/L		11/04/11 05:30	11/04/11 16:13	1
Nickel	19		2.0	0.28	ug/L		11/04/11 05:30	11/04/11 16:13	1
Selenium	3.7	J	5.0	1.0	ug/L		11/04/11 05:30	11/04/11 16:13	1
Silver	ND		1.0	0.020	ug/L		11/04/11 05:30	11/04/11 16:13	1
Thallium	ND		1.0	0.066	ug/L		11/04/11 05:30	11/04/11 16:13	1
Uranium	16		1.0	0.030	ug/L		11/04/11 05:30	11/04/11 16:13	1
Zinc	260		10	2.0	ug/L		11/04/11 05:30	11/04/11 16:13	1

Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22233-1

Project/Site: US 6 and BNSF

Method: 245.1 - Mercury (CVAA)

Client Sample ID: B-1 Lab Sample ID: 280-22233-1

Date Collected: 10/31/11 10:07 **Matrix: Water** 

Date Received: 10/31/11 16:30

Result Qualifier RL Dil Fac Analyte MDL Unit Prepared Analyzed 0.20 11/04/11 12:00 11/04/11 15:50 0.027 ug/L 0.17 J Mercury

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 245.1 - Mercury (CVAA) - Potentially Dissolved

Client Sample ID: B-1 Lab Sample ID: 280-22233-1 Date Collected: 10/31/11 10:07

**Matrix: Water** 

Date Received: 10/31/11 16:30

Result Qualifier RL Dil Fac Analyte MDL Unit Prepared Analyzed 11/07/11 14:49 0.20 0.027 ug/L 11/07/11 11:20 Mercury ND

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

# General Chemistry

Client Sample ID: B-1

Lab Sample ID: 280-22233-1

Pete Collected: 10/24/44 10:07

Date Collected: 10/31/11 10:07 Matrix: Water

Date Received: 10/31/11 16:30

Analyte	Result	Qualifier RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	0.020	0.0040	mg/L		11/01/11 09:20	1
Cr (III)	0.17	0.020	0.020	mg/L		11/09/11 15:39	1
Total Dissolved Solids	720	200	94	mg/L		11/04/11 10:30	1
Total Suspended Solids	12000	250	69	mg/L		11/02/11 17:38	1

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# **Surrogate Summary**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

<b>Lab Sample ID</b> 280-22233-1 280-22233-2				Percent Su
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(80-120)	(73-122)	(79-119)
280-22233-1	B-1	108	103	102
280-22233-2	TRIP BLANK	87	85	80
280-22305-G-2 MS	Matrix Spike	97	89	79
280-22305-G-2 MSD	Matrix Spike Duplicate	107	99	88
LCS 280-94686/31	Lab Control Sample	98	87	80
MB 280-94686/32	Method Blank	98	93	91
Surrogate Legend				

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

#### Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Su	rogate Reco	very (Accept	ance Limits
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(36-120)	(30-120)	(50-120)	(45-120)	(36-120)	(52-120)
280-22233-1	B-1	61	64	95	69	67	57
LCS 280-94202/2-A	Lab Control Sample	70	69	94	77	74	90
LCSD 280-94202/3-A	Lab Control Sample Dup	65	69	94	72	74	93
MB 280-94202/1-A	Method Blank	65	69	83	76	74	102

#### Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

TBP = 2,4,6-Tribromophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPH = Terphenyl-d14

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-94686/32

**Matrix: Water** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		1.0	0.16	ug/L			11/03/11 19:55	
Dichlorobromomethane	ND		1.0	0.17	ug/L			11/03/11 19:55	
Bromoform	ND		1.0	0.19	ug/L			11/03/11 19:55	
Bromomethane	ND		2.0	0.21	ug/L			11/03/11 19:55	
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/11 19:55	
Chlorobenzene	ND		1.0	0.17	ug/L			11/03/11 19:55	
Chlorodibromomethane	ND		1.0	0.17	ug/L			11/03/11 19:55	
Chloroethane	ND		2.0	0.41	ug/L			11/03/11 19:55	
2-Chloroethyl vinyl ether	ND		3.0	0.74	ug/L			11/03/11 19:55	
Chloroform	ND		1.0	0.16	ug/L			11/03/11 19:55	
Chloromethane	ND		2.0	0.30	ug/L			11/03/11 19:55	
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			11/03/11 19:55	
1,3-Dichlorobenzene	ND		1.0	0.16	ug/L			11/03/11 19:55	
1,2-Dichlorobenzene	ND		1.0	0.13	ug/L			11/03/11 19:55	
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			11/03/11 19:55	
1,1-Dichloroethane	ND		1.0	0.16	ug/L			11/03/11 19:55	
1,2-Dichloroethane	ND		1.0	0.13	ug/L			11/03/11 19:55	
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			11/03/11 19:55	
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			11/03/11 19:55	
1,1-Dichloroethene	ND		1.0	0.14	ug/L			11/03/11 19:55	
1,2-Dichloropropane	ND		1.0		ug/L			11/03/11 19:55	
cis-1,3-Dichloropropene	ND		1.0		ug/L			11/03/11 19:55	
trans-1,3-Dichloropropene	ND		3.0		ug/L			11/03/11 19:55	
Ethylbenzene	ND		1.0		ug/L			11/03/11 19:55	
Methylene Chloride	ND		5.0		ug/L			11/03/11 19:55	
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			11/03/11 19:55	
Tetrachloroethene	ND		1.0		ug/L			11/03/11 19:55	
Toluene	ND		1.0		ug/L			11/03/11 19:55	
1,1,1-Trichloroethane	ND		1.0		ug/L			11/03/11 19:55	
1,1,2-Trichloroethane	ND		1.0		ug/L			11/03/11 19:55	
Trichloroethene	ND		1.0		ug/L			11/03/11 19:55	
Trichlorofluoromethane	ND		2.0		ug/L			11/03/11 19:55	
Vinyl chloride	ND		1.0		ug/L			11/03/11 19:55	
Xylenes, Total	ND		2.0		ug/L ug/L			11/03/11 19:55	
Acetone	ND ND		2.0		-			11/03/11 19:55	
Acrolein	ND ND		100		ug/L			11/03/11 19:55	
					ug/L				
Acrylonitrile	ND		100		ug/L			11/03/11 19:55	
2-Butanone (MEK)	ND		20		ug/L			11/03/11 19:55	
Carbon disulfide	ND		5.0		ug/L			11/03/11 19:55	
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			11/03/11 19:55	
Ethylene Dibromide	ND		5.0		ug/L			11/03/11 19:55	
1,2-Dichloroethene, Total	ND		5.0		ug/L			11/03/11 19:55	
1,3-Dichloropropene, Total	ND		5.0		ug/L			11/03/11 19:55	
1,4-Dioxane	ND		250	71	-			11/03/11 19:55	
Hexane	ND		5.0		ug/L			11/03/11 19:55	
2-Hexanone	ND		20		ug/L			11/03/11 19:55	
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			11/03/11 19:55	
Methyl tert-butyl ether	ND		20	0.25	ug/L			11/03/11 19:55	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

# Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-94686/32

**Matrix: Water** 

Analysis Batch: 94686

Client S	ample I	D: I	Vieth	od	Blar	١k
	Pre	р Ту	ype:	Tot	tal/N	Α

	MB MB							
Analyte	Result Qualifie	er RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND ND	5.0	0.17	ug/L			11/03/11 19:55	1
1,2,3-Trichloropropane	ND	5.0	0.27	ug/L			11/03/11 19:55	1
Dibromomethane	ND	5.0	0.17	ug/L			11/03/11 19:55	1
Vinyl acetate	ND	10	0.94	ug/L			11/03/11 19:55	1
m-Xylene & p-Xylene	ND	2.0	0.19	ug/L			11/03/11 19:55	1
o-Xylene	ND	1.0	0.19	ug/L			11/03/11 19:55	1
Total BTEX	ND	1.0	0.16	ug/L			11/03/11 19:55	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		11/03/11 19:55	1
1,2-Dichloroethane-d4 (Surr)	93		73 - 122		11/03/11 19:55	1
4-Bromofluorobenzene (Surr)	91		79 - 119		11/03/11 19:55	1

Lab Sample ID: LCS 280-94686/31

**Matrix: Water** 

Client Sample ID:	<b>Lab Control Sample</b>
	Prep Type: Total/NA

Analysis Batch: 94686						
	Spike		LCS	_		%Rec.
Analyte	Added			nit D	%Rec	Limits
Benzene	5.00	4.85	ug		97	37 <sub>-</sub> 151
Dichlorobromomethane	5.00	5.00	ug		100	35 - 155
Bromoform	5.00	4.86	uç	/L	97	45 - 169
Carbon tetrachloride	5.00	4.52	ug	/L	90	70 - 140
Chlorobenzene	5.00	4.96	นอู	/L	99	37 - 160
Chlorodibromomethane	5.00	4.99	ug	/L	100	53 - 149
Chloroethane	5.00	3.95	ug	/L	79	14 - 230
2-Chloroethyl vinyl ether	5.00	4.74	ug	/L	95	10 - 305
Chloroform	5.00	4.85	ug	/L	97	51 - 138
Chloromethane	5.00	3.62	uç	/L	72	10 - 273
1,4-Dichlorobenzene	5.00	4.67	ug	/L	93	18 - 190
1,3-Dichlorobenzene	5.00	4.70	ug	/L	94	59 - 156
1,2-Dichlorobenzene	5.00	4.53	ug	/L	91	18 - 190
1,1-Dichloroethane	5.00	4.69	นดู	/L	94	59 - 155
1,2-Dichloroethane	5.00	4.99	ug	/L	100	49 - 155
trans-1,2-Dichloroethene	5.00	4.67	ug	/L	93	54 - 156
1,1-Dichloroethene	5.00	4.67	นดู	/L	93	10 - 234
1,2-Dichloropropane	5.00	4.84	ug	/L	97	10 - 210
cis-1,3-Dichloropropene	5.00	5.01	ug	/L	100	10 - 227
trans-1,3-Dichloropropene	5.00	4.90	ug	/L	98	17 - 183
Ethylbenzene	5.00	4.69	ug	/L	94	37 - 162
Methylene Chloride	5.00	4.82	J ug	/L	96	10 - 221
1,1,2,2-Tetrachloroethane	5.00	4.87	ug	/L	97	46 - 157
Tetrachloroethene	5.00	4.67	ug	/L	93	64 - 148
Toluene	5.00	4.58	uç	/L	92	47 - 150
1,1,1-Trichloroethane	5.00	4.45	ug	/L	89	52 _ 162
1,1,2-Trichloroethane	5.00	4.83	ug	/L	97	52 _ 150
Trichloroethene	5.00	4.63	uç	/L	93	71 - 157
Trichlorofluoromethane	5.00	3.41	uç		68	17 - 181
Vinyl chloride	5.00	3.55	ug	/L	71	10 - 251
Xylenes, Total	15.0	13.9	ug		93	50 <sub>-</sub> 150

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

10

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

# Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-94686/31

**Matrix: Water Analysis Batch: 94686** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	20.0	18.4	J	ug/L		92	42 - 170	
1,3-Dichloropropene, Total	10.0	9.91		ug/L		99	17 - 183	
Hexane	4.88	6.49		ug/L		133	69 - 143	

LCS LCS Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 98 80 - 120 87 73 - 122 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) 80 79 - 119

Lab Sample ID: 280-22305-G-2 MS

Matrix: Water									Prep Ty	ype: Tota	al/NA
Analysis Batch: 94686											
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	ND		5.00	5.29		ug/L		106	37 _ 151		

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	ND		5.00	5.29		ug/L		106	37 - 151	
Dichlorobromomethane	ND		5.00	5.48		ug/L		110	35 - 155	
Bromoform	ND		5.00	5.28		ug/L		106	45 _ 169	
Carbon tetrachloride	ND		5.00	4.60		ug/L		92	70 - 140	
Chlorobenzene	ND		5.00	5.21		ug/L		104	37 _ 160	
Chlorodibromomethane	ND		5.00	5.48		ug/L		110	53 _ 149	
Chloroethane	ND		5.00	4.14		ug/L		83	14 - 230	
2-Chloroethyl vinyl ether	ND		5.00	ND	F	ug/L		0	10 _ 305	
Chloroform	ND		5.00	5.29		ug/L		106	51 - 138	
Chloromethane	ND		5.00	3.76		ug/L		75	10 _ 273	
1,4-Dichlorobenzene	ND		5.00	5.17		ug/L		103	18 _ 190	
1,3-Dichlorobenzene	ND		5.00	4.69		ug/L		94	59 - 156	
1,2-Dichlorobenzene	ND		5.00	5.02		ug/L		100	18 - 190	
1,1-Dichloroethane	ND		5.00	5.09		ug/L		102	59 - 155	
1,2-Dichloroethane	ND		5.00	5.49		ug/L		110	49 - 155	
trans-1,2-Dichloroethene	ND		5.00	4.79		ug/L		96	54 - 156	
1,1-Dichloroethene	ND		5.00	4.93		ug/L		99	10 - 234	
1,2-Dichloropropane	ND		5.00	5.27		ug/L		105	10 - 210	
cis-1,3-Dichloropropene	ND		5.00	5.27		ug/L		105	10 - 227	
trans-1,3-Dichloropropene	ND		5.00	5.26		ug/L		105	17 - 183	
Ethylbenzene	ND		5.00	4.81		ug/L		96	37 - 162	
Methylene Chloride	ND		5.00	4.79	J	ug/L		96	10 - 221	
1,1,2,2-Tetrachloroethane	ND		5.00	5.34		ug/L		107	46 - 157	
Tetrachloroethene	ND		5.00	4.68		ug/L		94	64 - 148	
Toluene	ND		5.00	4.84		ug/L		97	47 - 150	
1,1,1-Trichloroethane	ND		5.00	4.58		ug/L		92	52 - 162	
1,1,2-Trichloroethane	ND		5.00	5.39		ug/L		108	52 <sub>-</sub> 150	
Trichloroethene	ND		5.00	4.83		ug/L		97	71 _ 157	
Trichlorofluoromethane	ND		5.00	3.45		ug/L		69	17 - 181	
Vinyl chloride	ND		5.00	3.67		ug/L		73	10 - 251	
Xylenes, Total	ND		15.0	14.5		ug/L		97	50 - 150	
Acetone	ND		20.0	18.2	J	ug/L		91	42 - 170	
1,3-Dichloropropene, Total	ND		10.0	10.5		ug/L		105	17 - 183	
Hexane	ND		4.88	5.68		ug/L		116	69 - 143	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-22305-G-2 MS

**Matrix: Water** 

**Analysis Batch: 94686** 

Client Sample ID: Matrix Spike Prep Type: Total/NA

any one Dates in Cross

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	97		80 - 120
1,2-Dichloroethane-d4 (Surr)	89		73 - 122
4-Bromofluorobenzene (Surr)	79		79 - 119

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Lab Sample ID: 280-22305-G-2 MSD

Matrix: Water

**Analysis Batch: 94686** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		5.00	5.92		ug/L		118	37 - 151	11	30
Dichlorobromomethane	ND		5.00	6.18		ug/L		124	35 - 155	12	30
Bromoform	ND		5.00	5.92		ug/L		118	45 - 169	11	30
Carbon tetrachloride	ND		5.00	5.19		ug/L		104	70 - 140	12	30
Chlorobenzene	ND		5.00	5.87		ug/L		117	37 - 160	12	30
Chlorodibromomethane	ND		5.00	6.25		ug/L		125	53 - 149	13	30
Chloroethane	ND		5.00	4.80		ug/L		96	14 - 230	15	30
2-Chloroethyl vinyl ether	ND		5.00	ND	F	ug/L		0	10 - 305	NC	45
Chloroform	ND		5.00	5.96		ug/L		119	51 - 138	12	30
Chloromethane	ND		5.00	4.41		ug/L		88	10 - 273	16	30
1,4-Dichlorobenzene	ND		5.00	5.45		ug/L		109	18 - 190	5	30
1,3-Dichlorobenzene	ND		5.00	5.63		ug/L		113	59 <sub>-</sub> 156	18	30
1,2-Dichlorobenzene	ND		5.00	5.54		ug/L		111	18 - 190	10	30
1,1-Dichloroethane	ND		5.00	5.63		ug/L		113	59 - 155	10	30
1,2-Dichloroethane	ND		5.00	6.23		ug/L		125	49 - 155	13	30
trans-1,2-Dichloroethene	ND		5.00	5.52		ug/L		110	54 - 156	14	30
1,1-Dichloroethene	ND		5.00	5.53		ug/L		111	10 - 234	11	30
1,2-Dichloropropane	ND		5.00	6.05		ug/L		121	10 - 210	14	30
cis-1,3-Dichloropropene	ND		5.00	6.07		ug/L		121	10 - 227	14	30
trans-1,3-Dichloropropene	ND		5.00	5.97		ug/L		119	17 - 183	13	30
Ethylbenzene	ND		5.00	5.44		ug/L		109	37 - 162	12	30
Methylene Chloride	ND		5.00	5.47		ug/L		109	10 _ 221	13	30
1,1,2,2-Tetrachloroethane	ND		5.00	6.05		ug/L		121	46 - 157	12	30
Tetrachloroethene	ND		5.00	5.17		ug/L		103	64 - 148	10	30
Toluene	ND		5.00	5.46		ug/L		109	47 - 150	12	30
1,1,1-Trichloroethane	ND		5.00	5.14		ug/L		103	52 - 162	12	30
1,1,2-Trichloroethane	ND		5.00	5.99		ug/L		120	52 <sub>-</sub> 150	11	30
Trichloroethene	ND		5.00	5.41		ug/L		108	71 - 157	11	30
Trichlorofluoromethane	ND		5.00	3.97		ug/L		79	17 - 181	14	30
Vinyl chloride	ND		5.00	4.22		ug/L		84	10 - 251	14	30
Xylenes, Total	ND		15.0	15.8		ug/L		105	50 - 150	9	30
Acetone	ND		20.0	20.9		ug/L		104	42 - 170	14	20
1,3-Dichloropropene, Total	ND		10.0	12.0		ug/L		120	17 - 183	13	30
Hexane	ND		4.88	6.12		ug/L		125	69 - 143	7	20

<b>USD</b>	MSD
,,,,,	IVIOD

Surrogate	%Recovery Qualifier	Limits
Toluene-d8 (Surr)	107	80 - 120
1,2-Dichloroethane-d4 (Surr)	99	73 - 122
4-Bromofluorobenzene (Surr)	88	79 119

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-94202/1-A

**Matrix: Water** 

Client Sample ID: Method Blank Prep Type: Total/NA

Pren Batch: 94202

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10	0.28	ug/L		11/01/11 12:25	11/08/11 21:04	1
Benzidine	ND		150	50	ug/L		11/01/11 12:25	11/08/11 21:04	1
1,2,4-Trichlorobenzene	ND		10	0.28	ug/L		11/01/11 12:25	11/08/11 21:04	1
Hexachlorobenzene	ND		10	0.66	ug/L		11/01/11 12:25	11/08/11 21:04	1
Bis(2-chloroethyl)ether	ND		10	0.41	ug/L		11/01/11 12:25	11/08/11 21:04	1
2-Chloronaphthalene	ND		10	0.26	ug/L		11/01/11 12:25	11/08/11 21:04	1
2-Chlorophenol	ND		10	2.0	ug/L		11/01/11 12:25	11/08/11 21:04	1
2-Methylphenol	ND		10	0.98	ug/L		11/01/11 12:25	11/08/11 21:04	1
2,4,6-Trichlorophenol	ND		20	0.29	ug/L		11/01/11 12:25	11/08/11 21:04	1
3,3'-Dichlorobenzidine	ND		50	2.0	ug/L		11/01/11 12:25	11/08/11 21:04	1
Hexachloroethane	ND		10	2.1	ug/L		11/01/11 12:25	11/08/11 21:04	1
2,4-Dichlorophenol	ND		10	0.64	ug/L		11/01/11 12:25	11/08/11 21:04	1
2,4-Dimethylphenol	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
2,4-Dinitrotoluene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
2,6-Dinitrotoluene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Fluoranthene	ND		10	0.20	ug/L		11/01/11 12:25	11/08/11 21:04	1
4-Bromophenyl phenyl ether	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
2,2'-Oxybis(1-chloropropane)	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Hexachlorobutadiene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	
Hexachlorocyclopentadiene	ND		50		ug/L		11/01/11 12:25	11/08/11 21:04	1
Isophorone	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Naphthalene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	
Nitrobenzene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
2-Nitrophenol	ND		20		ug/L		11/01/11 12:25	11/08/11 21:04	1
2,4-Dinitrophenol	ND		60		ug/L		11/01/11 12:25	11/08/11 21:04	1
4-Nitrophenol	ND		50		ug/L		11/01/11 12:25	11/08/11 21:04	1
4,6-Dinitro-2-methylphenol	ND		60		ug/L		11/01/11 12:25	11/08/11 21:04	1
N-Nitrosodimethylamine	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	· · · · · · · · 1
N-Nitrosodi-n-propylamine	ND		10	0.35	J		11/01/11 12:25	11/08/11 21:04	1
N-Nitrosodiphenylamine	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Pentachlorophenol	ND		60		ug/L		11/01/11 12:25	11/08/11 21:04	· · · · · · · · 1
Phenol	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	. 1
Bis(2-ethylhexyl) phthalate	2.69	1	10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Butyl benzyl phthalate	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	· · · · · · · 1
Di-n-butyl phthalate	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Di-n-octyl phthalate	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Diethyl phthalate	ND		10		ug/L ug/L		11/01/11 12:25	11/08/11 21:04	
Dimethyl phthalate	ND		10		ug/L				
Benzo[a]anthracene	ND ND		10		ug/L ug/L		11/01/11 12:25 11/01/11 12:25	11/08/11 21:04 11/08/11 21:04	1 1
	ND				ug/L ug/L		11/01/11 12:25		
Benzo[a]pyrene			10					11/08/11 21:04	1
Benzo[b]fluoranthene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Benzo[k]fluoranthene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Anthracene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Acenaphthylene	ND		10		ug/L		11/01/11 12:25	11/08/11 21:04	1
Chrysene	ND		10	0.54	ug/L		11/01/11 12:25	11/08/11 21:04	1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-94202/1-A

**Matrix: Water** 

**Analysis Batch: 95595** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 94202

	IND	MID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		10	0.31	ug/L		11/01/11 12:25	11/08/11 21:04	1
Phenanthrene	ND		10	0.26	ug/L		11/01/11 12:25	11/08/11 21:04	1
Dibenz(a,h)anthracene	ND		10	0.51	ug/L		11/01/11 12:25	11/08/11 21:04	1
Indeno[1,2,3-cd]pyrene	ND		10	0.65	ug/L		11/01/11 12:25	11/08/11 21:04	1
Pyrene	ND		10	0.37	ug/L		11/01/11 12:25	11/08/11 21:04	1
3 & 4 Methylphenol	ND		10	0.80	ug/L		11/01/11 12:25	11/08/11 21:04	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		36 - 120	11/01/11 12:25	11/08/11 21:04	1
2-Fluorophenol	69		30 - 120	11/01/11 12:25	11/08/11 21:04	1
2,4,6-Tribromophenol	83		50 <sub>-</sub> 120	11/01/11 12:25	11/08/11 21:04	1
Nitrobenzene-d5	76		45 - 120	11/01/11 12:25	11/08/11 21:04	1
Phenol-d5	74		36 - 120	11/01/11 12:25	11/08/11 21:04	1
Terphenyl-d14	102		52 - 120	11/01/11 12:25	11/08/11 21:04	1

Lab Sample ID: LCS 280-94202/2-A

**Matrix: Water** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Analysis Batch: 95595							Prep Batch: 94202
	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Acenaphthene	80.0	61.8		ug/L		77	47 - 120
Benzidine	200	146	J	ug/L		73	10 - 218
1,2,4-Trichlorobenzene	80.0	50.5		ug/L		63	44 - 120
Hexachlorobenzene	80.0	70.4		ug/L		88	53 - 120
Bis(2-chloroethyl)ether	80.0	54.7		ug/L		68	35 _ 120
2-Chloronaphthalene	80.0	58.6		ug/L		73	60 - 118
2-Chlorophenol	80.0	57.5		ug/L		72	34 - 120
2-Methylphenol	80.0	54.3		ug/L		68	38 - 120
2,4,6-Trichlorophenol	80.0	67.4		ug/L		84	51 - 120
3,3'-Dichlorobenzidine	80.0	54.0		ug/L		68	18 - 120
Hexachloroethane	80.0	43.8		ug/L		55	40 - 113
2,4-Dichlorophenol	80.0	62.2		ug/L		78	46 - 120
2,4-Dimethylphenol	80.0	53.1		ug/L		66	44 - 119
2,4-Dinitrotoluene	80.0	74.9		ug/L		94	57 - 120
2,6-Dinitrotoluene	80.0	71.6		ug/L		90	56 - 120
Fluoranthene	80.0	74.6		ug/L		93	58 - 120
4-Bromophenyl phenyl ether	80.0	69.7		ug/L		87	53 - 120
4-Chlorophenyl phenyl ether	80.0	68.2		ug/L		85	51 - 120
2,2'-Oxybis(1-chloropropane)	80.0	59.0		ug/L		74	37 - 120
Bis(2-chloroethoxy)methane	80.0	60.3		ug/L		75	50 - 120
Hexachlorobutadiene	80.0	47.8		ug/L		60	27 - 116
Hexachlorocyclopentadiene	80.0	19.7	J	ug/L		25	10 - 120
Isophorone	80.0	64.7		ug/L		81	50 - 120
Naphthalene	80.0	55.2		ug/L		69	37 - 120
Nitrobenzene	80.0	61.1		ug/L		76	46 - 120
2-Nitrophenol	80.0	62.9		ug/L		79	47 - 120
2,4-Dinitrophenol	80.0	73.9		ug/L		92	20 - 121
4-Nitrophenol	80.0	73.1		ug/L		91	53 - 120
4,6-Dinitro-2-methylphenol	80.0	76.5		ug/L		96	40 - 120

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

# Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-94202/2-A

**Matrix: Water Analysis Batch: 95595**  **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 94202

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
N-Nitrosodimethylamine	80.0	58.7		ug/L		73	37 - 120
N-Nitrosodi-n-propylamine	80.0	63.7		ug/L		80	50 _ 120
N-Nitrosodiphenylamine	68.3	53.4		ug/L		78	46 - 203
Pentachlorophenol	80.0	65.0		ug/L		81	46 - 120
Phenol	80.0	60.1		ug/L		75	37 _ 112
Bis(2-ethylhexyl) phthalate	80.0	71.9		ug/L		90	56 - 120
Butyl benzyl phthalate	80.0	72.3		ug/L		90	53 _ 120
Di-n-butyl phthalate	80.0	75.6		ug/L		94	57 _ 118
Di-n-octyl phthalate	80.0	74.9		ug/L		94	56 - 120
Diethyl phthalate	80.0	71.6		ug/L		90	59 - 114
Dimethyl phthalate	80.0	71.2		ug/L		89	58 - 112
Benzo[a]anthracene	80.0	69.9		ug/L		87	54 - 120
Benzo[a]pyrene	80.0	58.3		ug/L		73	39 _ 120
Benzo[b]fluoranthene	80.0	67.9		ug/L		85	51 - 120
Benzo[k]fluoranthene	80.0	61.6		ug/L		77	49 - 120
Anthracene	80.0	70.2		ug/L		88	52 - 120
Acenaphthylene	80.0	65.5		ug/L		82	33 - 120
Chrysene	80.0	70.8		ug/L		89	51 - 120
Benzo[g,h,i]perylene	80.0	72.8		ug/L		91	48 - 120
Fluorene	80.0	66.7		ug/L		83	59 - 120
Phenanthrene	80.0	70.5		ug/L		88	54 - 120
Dibenz(a,h)anthracene	80.0	69.0		ug/L		86	45 <sub>-</sub> 120
Indeno[1,2,3-cd]pyrene	80.0	73.1		ug/L		91	50 - 120
Pyrene	80.0	69.2		ug/L		86	55 <sub>-</sub> 115

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	70		36 - 120
2-Fluorophenol	69		30 - 120
2,4,6-Tribromophenol	94		50 - 120
Nitrobenzene-d5	77		45 - 120
Phenol-d5	74		36 - 120
Terphenyl-d14	90		52 - 120

Lab Sample ID: LCSD 280-94202/3-A

**Matrix: Water** 

Analysis Batch: 95595

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 94202

LCSD LCSD %Rec. Spike RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Acenaphthene 80.0 58.1 73 47 - 120 6 30 ug/L Benzidine 200 149 J ug/L 75 10 - 218 3 50 1,2,4-Trichlorobenzene 80.0 45.1 ug/L 56 44 - 120 11 35 80.0 68.2 85 53 - 120 30 Hexachlorobenzene ug/L 80.0 51.1 ug/L 35 - 120 30 Bis(2-chloroethyl)ether 64 2-Chloronaphthalene 80.0 54.7 68 60 - 118 30 ug/L 2-Chlorophenol 80.0 56.1 70 34 - 120 30 ug/L 38 - 120 53.7 67 2-Methylphenol 80.0 ug/L 35 2,4,6-Trichlorophenol 80.0 67.5 ug/L 84 51 - 120 30 3,3'-Dichlorobenzidine 80.0 54.8 ug/L 69 18 - 120 50 Hexachloroethane 80.0 40.1 ug/L 50 40 - 113 52

TestAmerica Denver

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-94202/3-A **Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Total/NA Analysis Batch: 95595** Prep Batch: 94202

Analysis Batch: 95595	Spike LCSD LC						%Rec.	94202	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
2,4-Dichlorophenol	80.0	59.0	-	ug/L		74	46 - 120	5	30
2,4-Dimethylphenol	80.0	49.9		ug/L		62	44 - 119	6	35
2,4-Dinitrotoluene	80.0	76.4		ug/L		95	57 - 120	2	35
2,6-Dinitrotoluene	80.0	74.7		ug/L		93	56 - 120	4	30
Fluoranthene	80.0	76.5		ug/L		96	58 - 120	2	30
4-Bromophenyl phenyl ether	80.0	68.0		ug/L		85	53 - 120	2	34
4-Chlorophenyl phenyl ether	80.0	65.6		ug/L		82	51 - 120	4	30
2,2'-Oxybis(1-chloropropane)	80.0	56.4		ug/L		71	37 - 120	4	30
Bis(2-chloroethoxy)methane	80.0	55.8		ug/L		70	50 - 120	8	30
Hexachlorobutadiene	80.0	41.5		ug/L		52	27 - 116	14	41
Hexachlorocyclopentadiene	80.0	12.6		ug/L		16	10 - 120	44	82
Isophorone	80.0	59.5		ug/L		74	50 <sub>-</sub> 120	8	30
Naphthalene	80.0	48.9		ug/L		61	37 - 120	12	30
Nitrobenzene	80.0	58.0		ug/L		73	46 - 120	5	30
2-Nitrophenol	80.0	60.9		ug/L		76	47 - 120	3	30
2,4-Dinitrophenol	80.0	75.6		ug/L		94	20 - 121	2	61
4-Nitrophenol	80.0	76.8		ug/L		96	53 - 120	5	42
4,6-Dinitro-2-methylphenol	80.0	77.7		ug/L		97	40 - 120	2	55
N-Nitrosodimethylamine	80.0	59.4		ug/L		74	37 - 120	1	30
N-Nitrosodi-n-propylamine	80.0	61.2		ug/L		77	50 - 120	4	30
N-Nitrosodiphenylamine	68.3	53.5		ug/L		78	46 - 203	0	50
Pentachlorophenol	80.0	68.5		ug/L		86	46 - 120	5	30
Phenol	80.0	60.2		ug/L		75	37 _ 112	0	30
Bis(2-ethylhexyl) phthalate	80.0	73.7		ug/L		92	56 <sub>-</sub> 120	2	30
Butyl benzyl phthalate	80.0	75.4		ug/L		94	53 - 120	4	30
Di-n-butyl phthalate	80.0	77.0		ug/L		96	57 - 118	2	30
Di-n-octyl phthalate	80.0	77.4		ug/L		97	56 <sub>-</sub> 120	3	30
Diethyl phthalate	80.0	75.1		ug/L		94	59 - 114	5	30
Dimethyl phthalate	80.0	73.6		ug/L		92	58 - 112	3	30
Benzo[a]anthracene	80.0	73.7		ug/L		92	54 - 120	5	30
Benzo[a]pyrene	80.0	58.3		ug/L		73	39 - 120	0	73
Benzo[b]fluoranthene	80.0	71.1		ug/L		89	51 - 120	5	90
Benzo[k]fluoranthene	80.0	63.1		ug/L		79	49 - 120	2	50
Anthracene	80.0	71.9		ug/L		90	52 - 120	2	30
Acenaphthylene	80.0	62.1		ug/L		78	33 - 120	5	30
Chrysene	80.0	73.5		ug/L		92	51 - 120	4	30
Benzo[g,h,i]perylene	80.0	73.9		ug/L		92	48 - 120	2	64
Fluorene	80.0	66.3		ug/L		83	59 - 120	1	30
Phenanthrene	80.0	71.7		ug/L		90	54 - 120	2	30
Dibenz(a,h)anthracene	80.0	70.4		ug/L		88	45 - 120	2	78
Indeno[1,2,3-cd]pyrene	80.0	74.6		ug/L		93	50 - 120	2	73
Pyrene	80.0	71.1		ug/L		89	55 <sub>-</sub> 115	3	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	65		36 - 120
2-Fluorophenol	69		30 - 120
2,4,6-Tribromophenol	94		50 - 120
Nitrobenzene-d5	72		45 - 120
Phenol-d5	74		36 - 120

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-94202/3-A

**Matrix: Water** 

**Analysis Batch: 95595** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 94202

Prep Batch: 93845

Prep Batch: 93845

Prep Batch: 93845

Prep Batch: 93845

Client Sample ID: B-1

Client Sample ID: B-1

Prep Batch: 93845

LCSD LCSD

Surrogate %Recovery Qualifier Limits Terphenyl-d14 52 - 120 93

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-93845/1-A

**Matrix: Water** 

**Analysis Batch: 95053** 

MB MB

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 100 22 ug/L 11/04/11 14:00 11/06/11 16:35 Iron

Lab Sample ID: MB 280-93845/1-A

**Matrix: Water** 

**Analysis Batch: 95238** 

мв мв

Analyte Result Qualifier RL MDL Unit Dil Fac Prepared Analyzed Aluminum ND 100 18 ug/L 11/04/11 14:00 11/07/11 16:06

Lab Sample ID: LCS 280-93845/2-A

**Matrix: Water** 

**Analysis Batch: 95053** 

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Iron 1000 954 ug/L 95 89 - 115

Lab Sample ID: LCS 280-93845/2-A

**Matrix: Water** 

**Analysis Batch: 95238** 

Spike LCS LCS %Rec. Added Result Qualifier Unit %Rec Limits Analyte D 2000 1990 87 - 111 Aluminum ug/L 100

Lab Sample ID: 280-22233-1 MS

**Matrix: Water** 

**Analysis Batch: 95053** 

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Analyte Unit %Rec Limits D Iron 4600 1000 5440 4 ug/L 88 89 - 115

Lab Sample ID: 280-22233-1 MS

**Matrix: Water** 

**Analysis Batch: 95238** 

Prep Batch: 93845 MS MS Spike %Rec. Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Aluminum 5700 2000 8070 ug/L 118 87 \_ 111

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Aluminum

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

5700

Lab Sample ID: 280-22233-1 MSD Client Sample ID: B-1 **Matrix: Water Prep Type: Total Recoverable Analysis Batch: 95053** Prep Batch: 93845

Spike MSD MSD Sample Sample RPD Added Result Qualifier Result Qualifier Unit D %Rec Limits RPD Limit Analyte 1000 Iron 4600 6560 4 ug/L 200 89 - 115 19

Lab Sample ID: 280-22233-1 MSD Client Sample ID: B-1 **Matrix: Water Prep Type: Total Recoverable Analysis Batch: 95238** Prep Batch: 93845 Sample Sample Spike MSD MSD RPD Result Qualifier Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit

2000

Lab Sample ID: MB 280-94381/1-C Client Sample ID: Method Blank **Matrix: Water Prep Type: Potentially Dissolved** 

Analysis Batch: 95241 Prep Batch: 94501 мв мв

9710 F

ug/L

201

87 - 111

20

10

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 100 11/02/11 05:30 11/07/11 23:22 Aluminum 18 ug/L ND 100 11/02/11 05:30 11/07/11 23:22 Iron 22 ug/L

Lab Sample ID: LCS 280-94381/2-C Client Sample ID: Lab Control Sample **Matrix: Water Prep Type: Potentially Dissolved** 

**Analysis Batch: 95241** Prep Batch: 94501

LCS LCS Spike Unit Analyte hahhA Result Qualifier D %Rec I imits Aluminum 2000 2030 ug/L 102 87 \_ 111 1000 1030 103 89 - 115 ug/L Iron

Lab Sample ID: 280-22255-E-2-L MS Client Sample ID: Matrix Spike **Matrix: Water Prep Type: Potentially Dissolved Analysis Batch: 95241** Prep Batch: 94501

Sample Sample Spike MS MS %Rec.

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits 2000 Aluminum 5200 7360 109 87 \_ 111 ug/L 7300 1000 8280 4 ug/L 97 89 - 115

Lab Sample ID: 280-22255-E-2-M MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water Prep Type: Potentially Dissolved** 

Analysis Batch: 95241 Prep Batch: 94501

Spike MSD MSD Sample Sample %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Aluminum 5200 2000 7330 ug/L 107 87 - 111 20 7300 1000 8200 4 89 89 - 115 Iron ug/L 20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-93846/1-A Client Sample ID: Method Blank **Matrix: Water Prep Type: Total Recoverable** 

**Analysis Batch: 95235** Prep Batch: 93846

мв мв RLMDL Unit Analyte Result Qualifier Prepared Dil Fac Analyzed Antimony ND 2.0 0.16 ug/L 11/06/11 10:00 11/07/11 15:59 11/07/11 15:59 Arsenic NΠ 5.0 0.50 ug/L 11/06/11 10:00 Barium ND 1.0 0.38 ug/L 11/06/11 10:00 11/07/11 15:59

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-93846/1-A

**Matrix: Water** 

**Analysis Batch: 95235** 

Client Sample ID: Method Blank **Prep Type: Total Recoverable** 

Prep Batch: 93846

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		1.0	0.15	ug/L		11/06/11 10:00	11/07/11 15:59	1
Cadmium	0.0480	J	1.0	0.040	ug/L		11/06/11 10:00	11/07/11 15:59	1
Chromium	ND		3.0	0.88	ug/L		11/06/11 10:00	11/07/11 15:59	1
Copper	ND		2.0	0.20	ug/L		11/06/11 10:00	11/07/11 15:59	1
Lead	ND		1.0	0.10	ug/L		11/06/11 10:00	11/07/11 15:59	1
Manganese	ND		2.0	0.51	ug/L		11/06/11 10:00	11/07/11 15:59	1
Molybdenum	0.0490	J	2.0	0.040	ug/L		11/06/11 10:00	11/07/11 15:59	1
Nickel	ND		2.0	0.28	ug/L		11/06/11 10:00	11/07/11 15:59	1
Selenium	ND		5.0	1.0	ug/L		11/06/11 10:00	11/07/11 15:59	1
Silver	ND		1.0	0.020	ug/L		11/06/11 10:00	11/07/11 15:59	1
Thallium	ND		1.0	0.066	ug/L		11/06/11 10:00	11/07/11 15:59	1
Uranium	ND		1.0	0.030	ug/L		11/06/11 10:00	11/07/11 15:59	1
Zinc	2.32	J	10	2.0	ug/L		11/06/11 10:00	11/07/11 15:59	1

MR MR

Lab Sample ID: LCS 280-93846/2-A

Matrix: Water

**Client Sample ID: Lab Control Sample** Prep Type: Total Recoverable

Matrix. Water				Frep Type. Total Recoverable				
Analysis Batch: 95235							Prep Batch: 9	93846
	Spike	LCS	LCS			%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	40.0	43.8		ug/L		109	85 - 115	
Arsenic	40.0	39.8		ug/L		100	89 - 111	
Barium	40.0	44.3		ug/L		111	89 - 115	
Beryllium	40.0	39.4		ug/L		98	85 - 115	
Cadmium	40.0	43.1		ug/L		108	89 - 111	
Chromium	40.0	41.0		ug/L		102	86 - 115	
Copper	40.0	38.2		ug/L		96	90 - 115	
Lead	40.0	43.3		ug/L		108	88 _ 115	
Manganese	40.0	41.9		ug/L		105	87 - 115	
Molybdenum	40.0	43.2		ug/L		108	89 - 112	
Nickel	40.0	42.6		ug/L		106	86 - 115	
Selenium	40.0	43.0		ug/L		107	85 - 114	
Silver	40.0	42.3		ug/L		106	90 - 114	
Thallium	40.0	42.1		ug/L		105	86 - 115	
Uranium	40.0	40.8		ug/L		102	85 - 115	
Zinc	40.0	41.2		ug/L		103	88 - 115	

Lab Sample ID: 280-22233-1 MS

**Matrix: Water** 

Analysis Batch: 95235

	Clie	nt Sa	ımple	ID: B-1	
٠.	Tyne:	Total	Recov	orable	

Prep Batch: 93846

/ indigoto Batom CC2CC										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.25	J	40.0	1.96	JF	ug/L		4	85 - 115	
Arsenic	55		40.0	98.6		ug/L		108	79 - 120	
Barium	1800		40.0	2040	4	ug/L		527	89 - 115	
Beryllium	17		40.0	61.9		ug/L		112	85 _ 115	
Cadmium	3.4	В	40.0	48.5	F	ug/L		113	89 - 111	
Chromium	170		40.0	233	4	ug/L		157	86 - 115	
Lead	250		40.0	323	4	ug/L		184	88 - 115	
Manganese	3400		40.0	3570	4	ug/L		464	87 <sub>-</sub> 115	
Molybdenum	3.1	В	40.0	18.8	F	ug/L		39	89 - 112	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-22233-1 MS

**Matrix: Water** 

**Analysis Batch: 95235** 

Client Sample ID: B-1
Prep Type: Total Recoverable

Prep Batch: 93846

10

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nickel	130		40.0	186	F	ug/L		141	86 - 115	
Selenium	7.5		40.0	37.2	F	ug/L		74	85 - 114	
Silver	0.73	J	40.0	47.1		ug/L		116	20 - 120	
Thallium	3.1		40.0	44.0		ug/L		102	86 - 115	
Uranium	58		40.0	108	F	ug/L		124	85 - 115	
Zinc	1000	В	40.0	1180	4	ug/L		343	88 - 115	

Lab Sample ID: 280-22233-1 MS Client Sample ID: B-1 **Prep Type: Total Recoverable** 

**Matrix: Water** 

Analyte Copper

Analysis Batch: 95235

								Prep	Batch:	93846
Sample	Sample	Spike	MS	MS				%Rec.		
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
280		40.0	361	4	ua/L		190	90 - 115		

Lab Sample ID: 280-22233-1 MSD Client Sample ID: B-1 **Matrix: Water** 

				Prep Type: Total Re	
35				Prep Bat	ch: 93846
	Sample Sample	Spike	MSD MSD	%Rec.	RPD

Analysis Batch: 95235									Prep	Batch:	93846
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.25	J	40.0	1.61	JF	ug/L		3	85 - 115	20	20
Arsenic	55		40.0	104	F	ug/L		121	79 - 120	5	20
Barium	1800		40.0	2230	4	ug/L		1012	89 - 115	9	20
Beryllium	17		40.0	61.6		ug/L		111	85 - 115	0	20
Cadmium	3.4	В	40.0	47.2		ug/L		109	89 _ 111	3	20
Chromium	170		40.0	272	4	ug/L		255	86 - 115	15	20
Lead	250		40.0	373	4	ug/L		308	88 - 115	14	20
Manganese	3400		40.0	3730	4	ug/L		846	87 - 115	4	20
Molybdenum	3.1	В	40.0	17.3	F	ug/L		36	89 - 112	8	20
Nickel	130		40.0	212	F	ug/L		206	86 - 115	13	20
Selenium	7.5		40.0	35.0	F	ug/L		69	85 - 114	6	20
Silver	0.73	J	40.0	47.5		ug/L		117	20 - 120	1	20
Thallium	3.1		40.0	43.0		ug/L		100	86 - 115	2	20
Uranium	58		40.0	115	F	ug/L		142	85 - 115	7	20
Zinc	1000	В	40.0	1350	4	ug/L		782	88 - 115	14	20

Lab Sample ID: 280-22233-1 MSD

мв мв

**Matrix: Water** 

**Analysis Batch: 95235** 

CII	ent Sample ID: B-1
Prep Type:	Total Recoverable
	Date - Date - La 00040

Prep Batch: 93846

ı		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
l	Copper	280		40.0	411	4	ug/L		315	90 - 115	13	20

Lab Sample ID: MB 280-93801/1-B

**Matrix: Water** 

Analysis Batch: 95046

Client Sample ID: Method Blank
<b>Prep Type: Potentially Dissolved</b>
Prep Batch: 93819

Analyte Result Qualifier MDL Unit Prepared Analyzed Dil Fac Antimony ND 2.0 0.16 ug/L 11/04/11 05:30 11/04/11 15:40 ND 11/04/11 15:40 Arsenic 5.0 0.50 ug/L 11/04/11 05:30 Barium ND 1.0 0.38 ug/L 11/04/11 05:30 11/04/11 15:40 11/04/11 05:30 11/04/11 15:40 Beryllium ND 1.0 0.15 ug/L

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

# Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-93801/1-B

**Matrix: Water** 

**Analysis Batch: 95046** 

Client Sample ID: Method Blank **Prep Type: Potentially Dissolved** 

Prep Batch: 93819

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0790	J	1.0	0.040	ug/L		11/04/11 05:30	11/04/11 15:40	1
Chromium	ND		3.0	0.88	ug/L		11/04/11 05:30	11/04/11 15:40	1
Copper	ND		2.0	0.20	ug/L		11/04/11 05:30	11/04/11 15:40	1
Lead	ND		1.0	0.10	ug/L		11/04/11 05:30	11/04/11 15:40	1
Manganese	ND		2.0	0.51	ug/L		11/04/11 05:30	11/04/11 15:40	1
Molybdenum	0.0980	J	2.0	0.040	ug/L		11/04/11 05:30	11/04/11 15:40	1
Nickel	ND		2.0	0.28	ug/L		11/04/11 05:30	11/04/11 15:40	1
Selenium	ND		5.0	1.0	ug/L		11/04/11 05:30	11/04/11 15:40	1
Silver	ND		1.0	0.020	ug/L		11/04/11 05:30	11/04/11 15:40	1
Thallium	ND		1.0	0.066	ug/L		11/04/11 05:30	11/04/11 15:40	1
Uranium	ND		1.0	0.030	ug/L		11/04/11 05:30	11/04/11 15:40	1
Zinc	ND		10	2.0	ug/L		11/04/11 05:30	11/04/11 15:40	1

Lab Sample ID: LCS 280-93801/2-B

**Matrix: Water** 

Analysis Batch: 95046

**Client Sample ID: Lab Control Sample Prep Type: Potentially Dissolved** 

Prep Batch: 93819

Spike LCS LCS Added Result Qualifier Limits Analyte Unit D %Rec Antimony 40.0 39.5 ug/L 99 85 - 115 Arsenic 40.0 41.7 ug/L 104 89 - 111 40.0 43.7 Barium ug/L 109 89 - 115 Beryllium 40.0 40.9 102 85 - 115 ug/L Cadmium 40.0 40.6 ug/L 101 89 - 111 Chromium 40.0 40.2 ug/L 101 86 - 115 Copper 40.0 40.3 101 90 - 115 ug/L Lead 40.0 41.4 103 88 - 115 ug/L Manganese 40.0 40.1 100 87 - 115 ug/L Molybdenum 40.0 42.2 106 89 - 112 ug/L Nickel 40.0 40.6 86 - 115 ug/L 102 Selenium 40.0 41.5 ug/L 104 85 - 114 Silver 40.0 39.8 ug/L 100 90 - 114 Thallium 40.0 41.2 ug/L 103 86 - 115 Uranium 40.0 41.2 ug/L 103 85 - 115 Zinc 40.0 44.4 ug/L 111 88 - 115

Lab Sample ID: 280-22255-F-1-C MS

**Matrix: Water** 

Analysis Batch: 95046

Client Sample ID: Matrix Spike **Prep Type: Potentially Dissolved** Prep Batch: 93819

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	ND		40.0	42.7		ug/L		107	85 _ 115	
Arsenic	7.7		40.0	50.6		ug/L		107	79 - 120	
Barium	570		40.0	626	4	ug/L		141	89 _ 115	
Beryllium	2.4		40.0	45.9		ug/L		109	85 <sub>-</sub> 115	
Cadmium	1.6	В	40.0	44.1		ug/L		106	89 - 111	
Chromium	26		40.0	69.8		ug/L		109	86 _ 115	
Copper	41		40.0	82.1		ug/L		102	90 - 115	
Lead	11		40.0	52.1		ug/L		104	88 _ 115	
Manganese	3000		40.0	3170	4	ug/L		404	87 <sub>-</sub> 115	
Molybdenum	4.6	В	40.0	47.0		ug/L		106	89 - 112	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-22255-F-1-C MS **Matrix: Water** 

Analysis Batch: 95046

Client Sample ID: Matrix Spike **Prep Type: Potentially Dissolved** 

Prep Batch: 93819

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nickel	29		40.0	67.8		ug/L		97	86 - 115	
Selenium	3.9	J	40.0	45.6		ug/L		104	85 - 114	
Silver	ND		40.0	39.4		ug/L		98	20 - 120	
Thallium	ND		40.0	40.6		ug/L		101	86 - 115	
Uranium	31		40.0	74.7		ug/L		109	85 - 115	
Zinc	120		40.0	162	F	ug/L		116	88 - 115	

Lab Sample ID: 280-22255-F-1-D MSD

**Matrix: Water** 

**Client Sample ID: Matrix Spike Duplicate** 

**Prep Type: Potentially Dissolved** 

10

Analysis Batch: 95046									Prep	Batch:	93819
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	ND		40.0	42.4		ug/L		106	85 - 115	1	20
Arsenic	7.7		40.0	45.9		ug/L		96	79 - 120	10	20
Barium	570		40.0	613	4	ug/L		108	89 - 115	2	20
Beryllium	2.4		40.0	43.8		ug/L		104	85 - 115	5	20
Cadmium	1.6	В	40.0	42.1		ug/L		101	89 - 111	4	20
Chromium	26		40.0	65.1		ug/L		97	86 - 115	7	20
Copper	41		40.0	80.3		ug/L		97	90 - 115	2	20
Lead	11		40.0	50.8		ug/L		101	88 - 115	2	20
Manganese	3000		40.0	3040	4	ug/L		82	87 - 115	4	20
Molybdenum	4.6	В	40.0	48.0		ug/L		108	89 - 112	2	20
Nickel	29		40.0	66.9		ug/L		95	86 - 115	1	20
Selenium	3.9	J	40.0	45.1		ug/L		103	85 - 114	1	20
Silver	ND		40.0	38.7		ug/L		97	20 - 120	2	20
Thallium	ND		40.0	40.0		ug/L		100	86 - 115	1	20
Uranium	31		40.0	71.5		ug/L		101	85 - 115	4	20
Zinc	120		40.0	158		ug/L		105	88 - 115	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-94413/1-A

**Matrix: Water** 

Analysis Batch: 95136

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 94413

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND -	0.20	0.027 ug/l		11/04/11 12:00	11/04/11 15:44	

LCS LCS

Lab Sample ID: LCS 280-94413/2-A

**Matrix: Water** 

Analysis Batch: 95136

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 94413

%Rec.

Limits

Spike Added Analyte Result Qualifier Unit %Rec 5.00 90 - 110 Mercury 4.93 ug/L 99

мв мв

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 280-22255-E-2-F	MS		Client Sample ID: Matrix Spike
Matrix: Water			Prep Type: Total/NA
Analysis Batch: 95136			Prep Batch: 94413
I and the second		<b>4</b>	 A/ =

Sample Sample Spike MS %Rec. MS Result Qualifier Analyte Result Qualifier babbA Unit %Rec Limits D 5.00 Mercury 0.27 5.02 ug/L 95 80 - 120

Lab Sample ID: 280-22255-E-2-G MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 95136** Prep Batch: 94413 Sample Sample MSD Spike MSD RPD Result Qualifier Result Qualifier Added Limit Analyte Unit %Rec Limits RPD Mercury 0.27 5.00 4.98 ug/L 94 80 - 120

Lab Sample ID: MB 280-94084/1-B

Matrix: Water

Analysis Batch: 95234

MB MB

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved
Prep Batch: 94416

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Factory

 Mercury
 ND
 0.20
 0.20
 ug/L
 11/07/11 11:20
 11/07/11 14:44
 1

Lab Sample ID: LCS 280-94084/2-B

Matrix: Water

Analysis Batch: 95234

Spike

LCS LCS

Result Qualifier Unit D %Rec Limits

AnalyteAddedResultQualifierUnitD%RecLimitsMercury5.004.81ug/Lug/L9690 - 110

Lab Sample ID: 280-22233-1 MS

Matrix: Water

Analysis Batch: 95234

Sample Sample Spike MS MS

Client Sample ID: B-1

Prep Type: Potentially Dissolved

Prep Batch: 94416

%Rec.

SampleSampleSpikeMS%Rec.AnalyteResultQualifierAddedResultQualifierUnitD%RecLimitsMercuryND5.004.57ug/L9180 - 120

Lab Sample ID: 280-22233-1 MSD

Matrix: Water

Analysis Batch: 95234

Sample Sample Spike MSD MSD

Client Sample ID: B-1

Prep Type: Potentially Dissolved

Prep Batch: 94416

RPD

RPD

Result Qualifier Added Result Qualifier Unit Analyte D %Rec Limits RPD Limit 5.00 Mercury ND 4 94 ug/L 99 80 - 120 8 10

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 280-94138/5

Matrix: Water

Client Sample ID: Method Blank
Prep Type: Total/NA

Analysis Batch: 94138

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			11/01/11 09:20	1

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Matrix Spike

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 280-94138/3 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 94138** 

Spike LCS LCS babbA Result Qualifier Limits Analyte Unit D %Rec 0.100 85 - 115 Chromium, hexavalent 0.0998 mg/L 100

Lab Sample ID: LCSD 280-94138/4

**Matrix: Water** 

**Analysis Batch: 94138** 

LCSD LCSD Spike %Rec. RPD Result Qualifier Analyte Added Unit D %Rec Limits RPD Limit Chromium, hexavalent 0.100 0.102 mg/L 102 85 - 115 20

Lab Sample ID: 280-22234-C-1 MS

**Matrix: Water** 

**Analysis Batch: 94138** 

Spike MS MS %Rec. Sample Sample Result Qualifier Added Result Qualifier Unit %Rec Limits 0.0070 0.100 0.119 Chromium, hexavalent mg/L 112

Lab Sample ID: 280-22234-C-1 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 94138** 

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Added Result Qualifier Unit %Rec Limits Limit 0.0070 J 0.100 Chromium, hexavalent 0 116 mg/L 110 75 125 20

Lab Sample ID: 280-22234-C-1 DU **Client Sample ID: Duplicate** Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 94138** 

Sample Sample DII DII Result Qualifier Result Qualifier RPD Analyte Unit D Limit Chromium, hexavalent 0.0070 J 0.0113 J mg/L 20

Method: 7196A - Chromium, Trivalent (Colorimetric)

Lab Sample ID: MB 280-95520/1 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 95520

мв мв RLMDL Unit Dil Fac Analyte Result Qualifier D Prepared Analyzed Cr (III) ND 0.020 0.020 mg/L 11/09/11 15:39

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-94779/1 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 94779** 

мв мв Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Total Dissolved Solids ND 10 4.7 mg/L 11/04/11 10:30

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

**Client Sample ID: Duplicate** 

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

10

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 280-94779/2 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 94779** 

Spike LCS LCS Added Result Qualifier Limits Analyte Unit D %Rec 500 86 - 110 **Total Dissolved Solids** 481 mg/L 96

Lab Sample ID: LCSD 280-94779/3

**Matrix: Water** 

**Analysis Batch: 94779** 

LCSD LCSD Spike %Rec. RPD Result Qualifier Analyte Added Unit D %Rec Limits RPD Limit **Total Dissolved Solids** 500 483 mg/L 97 86 - 110

Lab Sample ID: 280-22205-B-1 DU

**Matrix: Water** 

**Analysis Batch: 94779** 

DU DU Sample Sample RPD Result Qualifier Result Qualifier Unit RPD Limit Total Dissolved Solids 64.0 68 mg/L

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-94508/1

**Matrix: Water** 

**Analysis Batch: 94508** 

MB MB

Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed ND 4.0 11/02/11 17:38 Total Suspended Solids 1.1 ma/L

Lab Sample ID: LCS 280-94508/2

**Matrix: Water** 

**Analysis Batch: 94508** 

Spike LCS LCS %Rec. Result Qualifier babbA Unit D Limits Analyte %Rec Total Suspended Solids 100 105 86 - 114 105 mg/L

Lab Sample ID: LCSD 280-94508/3 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 94508** 

LCSD LCSD Spike %Rec. RPD Added Result Qualifier Analyte Unit D %Rec Limits RPD Limit **Total Suspended Solids** 100 94.0 mg/L 94 86 - 114 20

Lab Sample ID: 280-22189-A-1 DU

**Matrix: Water** 

Analysis Batch: 94508

Sample Sample DU DU RPD Analyte Result Qualifier Result Qualifier Unit D **RPD** Limit Total Suspended Solids 1.2 J 1.60 J mg/L

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**Client Sample ID: Duplicate** 

Prep Type: Total/NA

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### **GC/MS VOA**

#### Analysis Batch: 94686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	624	
280-22233-2	TRIP BLANK	Total/NA	Water	624	
280-22305-G-2 MS	Matrix Spike	Total/NA	Water	624	
280-22305-G-2 MSD	Matrix Spike Duplicate	Total/NA	Water	624	
LCS 280-94686/31	Lab Control Sample	Total/NA	Water	624	
MB 280-94686/32	Method Blank	Total/NA	Water	624	

#### **GC/MS Semi VOA**

#### Prep Batch: 94202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	625	
LCS 280-94202/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 280-94202/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 280-94202/1-A	Method Blank	Total/NA	Water	625	

#### Analysis Batch: 95595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	625	94202
LCS 280-94202/2-A	Lab Control Sample	Total/NA	Water	625	94202
LCSD 280-94202/3-A	Lab Control Sample Dup	Total/NA	Water	625	94202
MB 280-94202/1-A	Method Blank	Total/NA	Water	625	94202

#### **Metals**

#### Prep Batch: 93819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Potentially Dissolved	Water	200.8	
280-22255-F-1-C MS	Matrix Spike	Potentially Dissolved	Water	200.8	
280-22255-F-1-D MSD	Matrix Spike Duplicate	Potentially Dissolved	Water	200.8	
LCS 280-93801/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	
MB 280-93801/1-B	Method Blank	Potentially Dissolved	Water	200.8	

#### Prep Batch: 93845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total Recoverable	Water	200.7	
280-22233-1 MS	B-1	Total Recoverable	Water	200.7	
280-22233-1 MSD	B-1	Total Recoverable	Water	200.7	
LCS 280-93845/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 280-93845/1-A	Method Blank	Total Recoverable	Water	200.7	

#### Prep Batch: 93846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total Recoverable	Water	200.8	
280-22233-1 MS	B-1	Total Recoverable	Water	200.8	
280-22233-1 MSD	B-1	Total Recoverable	Water	200.8	
LCS 280-93846/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
MB 280-93846/1-A	Method Blank	Total Recoverable	Water	200.8	

#### Prep Batch: 94413

_					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	245.1	

3

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11

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Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22233-1

Project/Site: US 6 and BNSF

#### **Metals (Continued)**

#### Prep Batch: 94413 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22255-E-2-F MS	Matrix Spike	Total/NA	Water	245.1	
280-22255-E-2-G MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
LCS 280-94413/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 280-94413/1-A	Method Blank	Total/NA	Water	245.1	

#### Prep Batch: 94416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Potentially Dissolved	Water	245.1	
280-22233-1 MS	B-1	Potentially Dissolved	Water	245.1	
280-22233-1 MSD	B-1	Potentially Dissolved	Water	245.1	
LCS 280-94084/2-B	Lab Control Sample	Potentially Dissolved	Water	245.1	
MB 280-94084/1-B	Method Blank	Potentially Dissolved	Water	245.1	

#### Prep Batch: 94501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
280-22233-1	B-1	Potentially Dissolved	Water	200.7	
280-22255-E-2-L MS	Matrix Spike	Potentially Dissolved	Water	200.7	
280-22255-E-2-M MSD	Matrix Spike Duplicate	Potentially Dissolved	Water	200.7	
LCS 280-94381/2-C	Lab Control Sample	Potentially Dissolved	Water	200.7	
MB 280-94381/1-C	Method Blank	Potentially Dissolved	Water	200.7	

#### Analysis Batch: 95046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Potentially Dissolved	Water	200.8	93819
280-22255-F-1-C MS	Matrix Spike	Potentially Dissolved	Water	200.8	93819
280-22255-F-1-D MSD	Matrix Spike Duplicate	Potentially Dissolved	Water	200.8	93819
LCS 280-93801/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	93819
MB 280-93801/1-B	Method Blank	Potentially Dissolved	Water	200.8	93819

### Analysis Batch: 95053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total Recoverable	Water	200.7 Rev 4.4	93845
280-22233-1 M	S B-1	Total Recoverable	Water	200.7 Rev 4.4	93845
280-22233-1 M	SD B-1	Total Recoverable	Water	200.7 Rev 4.4	93845
LCS 280-93845	2-A Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	93845
MB 280-93845/	1-A Method Blank	Total Recoverable	Water	200.7 Rev 4.4	93845

#### **Analysis Batch: 95136**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	245.1	94413
280-22255-E-2-F MS	Matrix Spike	Total/NA	Water	245.1	94413
280-22255-E-2-G MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	94413
LCS 280-94413/2-A	Lab Control Sample	Total/NA	Water	245.1	94413
MB 280-94413/1-A	Method Blank	Total/NA	Water	245.1	94413

#### Analysis Batch: 95234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Potentially Dissolved	Water	245.1	94416
280-22233-1 MS	B-1	Potentially Dissolved	Water	245.1	94416
280-22233-1 MSD	B-1	Potentially Dissolved	Water	245.1	94416
LCS 280-94084/2-B	Lab Control Sample	Potentially Dissolved	Water	245.1	94416
MB 280-94084/1-B	Method Blank	Potentially Dissolved	Water	245.1	94416

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Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

#### **Metals (Continued)**

#### Analysis Batch: 95235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total Recoverable	Water	200.8	93846
280-22233-1	B-1	Total Recoverable	Water	200.8	93846
280-22233-1 MS	B-1	Total Recoverable	Water	200.8	93846
280-22233-1 MS	B-1	Total Recoverable	Water	200.8	93846
280-22233-1 MSD	B-1	Total Recoverable	Water	200.8	93846
280-22233-1 MSD	B-1	Total Recoverable	Water	200.8	93846
LCS 280-93846/2-A	Lab Control Sample	Total Recoverable	Water	200.8	93846
MB 280-93846/1-A	Method Blank	Total Recoverable	Water	200.8	93846

#### **Analysis Batch: 95238**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total Recoverable	Water	200.7 Rev 4.4	93845
280-22233-1 MS	B-1	Total Recoverable	Water	200.7 Rev 4.4	93845
280-22233-1 MSD	B-1	Total Recoverable	Water	200.7 Rev 4.4	93845
LCS 280-93845/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	93845
MB 280-93845/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	93845

#### Analysis Batch: 95241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Potentially Dissolved	Water	200.7 Rev 4.4	94501
280-22255-E-2-L MS	Matrix Spike	Potentially Dissolved	Water	200.7 Rev 4.4	94501
280-22255-E-2-M MSD	Matrix Spike Duplicate	Potentially Dissolved	Water	200.7 Rev 4.4	94501
LCS 280-94381/2-C	Lab Control Sample	Potentially Dissolved	Water	200.7 Rev 4.4	94501
MB 280-94381/1-C	Method Blank	Potentially Dissolved	Water	200.7 Rev 4.4	94501

#### **General Chemistry**

#### **Analysis Batch: 94138**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	7196A	
280-22234-C-1 DU	Duplicate	Total/NA	Water	7196A	
280-22234-C-1 MS	Matrix Spike	Total/NA	Water	7196A	
280-22234-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	7196A	
LCS 280-94138/3	Lab Control Sample	Total/NA	Water	7196A	
LCSD 280-94138/4	Lab Control Sample Dup	Total/NA	Water	7196A	
MB 280-94138/5	Method Blank	Total/NA	Water	7196A	

#### **Analysis Batch: 94508**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22189-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
280-22233-1	B-1	Total/NA	Water	SM 2540D	
LCS 280-94508/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-94508/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 280-94508/1	Method Blank	Total/NA	Water	SM 2540D	

#### **Analysis Batch: 94779**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22205-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	
280-22233-1	B-1	Total/NA	Water	SM 2540C	
LCS 280-94779/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-94779/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
MB 280-94779/1	Method Blank	Total/NA	Water	SM 2540C	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22233-1

# **General Chemistry (Continued)**

#### Analysis Batch: 95520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22233-1	B-1	Total/NA	Water	7196A	
MB 280-95520/1	Method Blank	Total/NA	Water	7196A	

#### **Lab Chronicle**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Client Sample ID: B-1

TestAmerica Job ID: 280-22233-1

Lab Sample ID: 280-22233-1

Lab Sample ID: 280-22233-2

**Matrix: Water** 

Matrix: Water

Date Collected: 10/31/11 10:07 Date Received: 10/31/11 16:30

	Batch	Batch		Dil	Init	ial	Fin	al	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amo	unt	Amo	unt	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	20	mL	20	mL	94686	11/03/11 23:03	GPM	TAL DEN
Total/NA	Prep	625			1052.8	mL	1000	uL	94202	11/01/11 12:25	ACF	TAL DEN
Total/NA	Analysis	625		1					95595	11/08/11 22:00	MGH	TAL DEN
Potentially Dissolved	Prep	200.8			50	mL	50	mL	93819	11/04/11 05:30	CLI	TAL DEN
Potentially Dissolved	Analysis	200.8		1					95046	11/04/11 16:13	LT	TAL DEN
Total Recoverable	Prep	200.7			50	mL	50	mL	93845	11/04/11 14:00	JM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1					95053	11/06/11 17:16	JKH	TAL DEN
Total/NA	Prep	245.1			30	mL	30	mL	94413	11/04/11 12:00	BLR	TAL DEN
Total/NA	Analysis	245.1		1					95136	11/04/11 15:50	BLR	TAL DEN
Potentially Dissolved	Prep	245.1			30	mL	30	mL	94416	11/07/11 11:20	BLR	TAL DEN
Potentially Dissolved	Analysis	245.1		1					95234	11/07/11 14:49	BLR	TAL DEN
Total Recoverable	Prep	200.8			50	mL	50	mL	93846	11/06/11 10:00	JM	TAL DEN
Total Recoverable	Analysis	200.8		1					95235	11/07/11 16:31	LT	TAL DEN
Total Recoverable	Analysis	200.8		1					95235	11/07/11 18:03	LT	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1					95238	11/07/11 16:37	JKH	TAL DEN
Potentially Dissolved	Prep	200.7			50	mL	50	mL	94501	11/02/11 05:30	CLI	TAL DEN
Potentially Dissolved	Analysis	200.7 Rev 4.4		1					95241	11/07/11 23:39	JKH	TAL DEN
Total/NA	Analysis	7196A		1					94138	11/01/11 09:20	JAD	TAL DEN
Total/NA	Analysis	SM 2540D		1	4	mL	250	mL	94508	11/02/11 17:38	PAG	TAL DEN
Total/NA	Analysis	SM 2540C		1	5	mL	100	mL	94779	11/04/11 10:30	BJD	TAL DEN
Total/NA	Analysis	7196A		1	1.0	mL	1.0	mL	95520	11/09/11 15:39	JC	TAL DEN

**Client Sample ID: TRIP BLANK** 

Date Collected: 10/31/11 10:07

Date Received: 10/31/11 16:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	20 mL	20 mL	94686	11/03/11 23:27	GPM	TAL DEN

#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Denver

Wisconsin

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
estAmerica Denver	Alabama	State Program	4	40730
estAmerica Denver	Alaska	Alaska UST	10	UST-30
estAmerica Denver	Arizona	State Program	9	AZ0713
estAmerica Denver	Arkansas	State Program	6	88-0687
estAmerica Denver	California	State Program	9	2513
estAmerica Denver	Colorado	State Program	8	N/A
estAmerica Denver	Connecticut	State Program	1	PH-0686
estAmerica Denver	Florida	NELAC	4	E87667
estAmerica Denver	Georgia	State Program	4	N/A
estAmerica Denver	Idaho	State Program	10	CO00026
estAmerica Denver	Illinois	NELAC	5	200017
estAmerica Denver	Iowa	State Program	7	370
estAmerica Denver	Kansas	NELAC	7	E-10166
estAmerica Denver	Louisiana	NELAC	6	30785
estAmerica Denver	Maine	State Program	1	CO0002
estAmerica Denver	Maryland	State Program	3	268
estAmerica Denver	Minnesota	NELAC	5	8-999-405
estAmerica Denver	Nevada	State Program	9	CO0026
estAmerica Denver	New Hampshire	NELAC	1	205310
estAmerica Denver	New Jersey	NELAC	2	CO004
estAmerica Denver	New Mexico	State Program	6	N/A
estAmerica Denver	New York	NELAC	2	11964
estAmerica Denver	North Carolina	North Carolina DENR	4	358
estAmerica Denver	North Dakota	State Program	8	R-034
estAmerica Denver	Oklahoma	State Program	6	8614
estAmerica Denver	Oregon	NELAC	10	CO200001
estAmerica Denver	Pennsylvania	NELAC	3	68-00664
estAmerica Denver	South Carolina	State Program	4	72002
estAmerica Denver	Tennessee	State Program	4	TN02944
estAmerica Denver	Texas	NELAC	6	T104704183-08-TX
estAmerica Denver	USDA	USDA		P330-08-00036
estAmerica Denver	Utah	NELAC	8	QUAN5
estAmerica Denver	Washington	State Program	10	C1284
estAmerica Denver	West Virginia	West Virginia DEP	3	354

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

State Program

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DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

		Sampler ID		,		<b>\ +</b> \(\)	5		ζ	
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Comments										

# **Login Sample Receipt Checklist**

Client: Pinyon Env Eng Resources, Inc.

Job Number: 280-22233-1

Login Number: 22233 List Source: TestAmerica Denver

List Number: 1

Creator: Cofoid, Stephen T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	TB NOT LISTED
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-22635-1 Client Project/Site: US 6 and BNSF

### For:

Pinyon Env Eng Resources, Inc. 9100 West Jewell Avenue Suite 200 Lakewood, Colorado 80232

Attn: Mr. Brian R. Partington

Michelle A. Johnson

Authorized for release by: 11/29/2011 12:52:48 PM

Michelle Johnston Project Manager I

michelle.johnston@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### **Qualifiers**

### **GC/MS VOA**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

#### **GC/MS Semi VOA**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Metals**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

### **General Chemistry**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

RL Reporting Limit

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

Job ID: 280-22635-1

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

Client: Pinyon Env. Eng. Resources, Inc.
Project: US 6 & BNSF
Report Number: 280-22635-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

The sample was received on 11/10/2011; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.4 C.

The chain-of-custody did not indicate a sample collection time for sample B-6 (280-22635-1). The sample collection time was logged as 2005, per the sample container labels. The client was notified on November 10, 2011.

No other anomalies were encountered during sample receipt.

### **VOLATILE ORGANIC COMPOUNDS (GC-MS)**

Sample B-6 (280-22635-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA Method 624. The sample was analyzed on 11/22/2011.

The LCS associated with analytical batch 280-97497 exhibited a surrogate recovery below the QC control limits for 4-Bromoflurorbenzene. As the associated LCS compound recoveries were within QC control limits, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the VOC analysis.

All other quality control parameters were within the acceptance limits.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample B-6 (280-22635-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA Method 625. The sample was prepared on 11/10/2011 and analyzed on 11/15/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 280-95599/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The method required MS/MSD analyses could not be performed for prep batch 280-95599, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analyses data.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Job ID: 280-22635-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

#### **TOTAL RECOVERABLE METALS (ICP)**

Sample B-6 (280-22635-1) was analyzed for total recoverable metals (ICP) in accordance with EPA Method 200.7. The sample was prepared on 11/14/2011 and analyzed on 11/16/2011.

The MS/MSD associated with prep batch 280-96029 was performed on sample B-6 (280-22635-1). The MS/MSD spike compound recoveries and relative percent difference (RPD) data could not be reliably calculated for Aluminum and Iron because the sample concentrations were greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Aluminum was recovered outside the QC control limits, biased high, in the Initial Calibration Verification (ICV) standard associated with the Method Blank and LCS for prep batch 280-96029. This is an indicator that data may be biased high. As the associated Method Blank and LCS compound recoveries were within QC control limits, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL RECOVERABLE METALS (ICP/MS)**

Sample B-6 (280-22635-1) was analyzed for total recoverable metals in accordance with EPA Method 200.8. The sample was prepared on 11/14/2011 and analyzed on 11/15/2011.

Copper was detected in method blank MB 280-95999/1-A at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The MS/MSD associated with prep batch 280-95999 was performed on sample B-6 (280-22635-1). The MS/MSD exhibited spike compound recoveries outside the control limits for Antimony, Copper, Molybdenum and Selenium. In addition, the MS/MSD spike compound recoveries and relative percent difference (RPD) data could not be reliably calculated for Barium, Manganese and Zinc because the sample concentrations were greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The second MS/MSD associated with prep batch 280-95999 was performed on a sample from another client and/or job. The MS/MSD spike compound recoveries and relative percent difference (RPD) data could not be reliably calculated for Manganese because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

### POTENTIALLY DISSOLVED METALS (ICP)

Sample B-6 (280-22635-1) was analyzed for Metals (ICP) in accordance with EPA 200.7. The sample was prepared on 11/14/2011 and analyzed on 11/16/2011.

The MS/MSD associated with prep batch 280-95937 was performed on sample B-6 (280-22635-1). The MS/MSD spike compound recoveries and relative percent difference (RPD) data could not be reliably calculated for Iron because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Aluminum was recovered outside the QC control limits, biased high, in the Initial Calibration Verification (ICV) standard associated with

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

#### TestAmerica Job ID: 280-22635-1

### Job ID: 280-22635-1 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

the Method Blank and LCS for prep batch 280-95937. This is an indicator that data may be biased high. As the associated Method Blank and LCS compound recoveries were within QC control limits, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the metals (ICP) analysis.

All other quality control parameters were within the acceptance limits.

#### POTENTIALLY DISSOLVED METALS (ICP/MS)

Sample B-6 (280-22635-1) was analyzed for potentially dissolved metals in accordance with EPA Method 200.8. The sample was prepared on 11/14/2011 and 11/28/2011 and analyzed on 11/15/2011 and 11/28/2011.

Cadmium was detected in method blank MB 280-95562/1-B at a level that was less than one half the reporting limit; therefore, corrective action was deemed unnecessary. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The MS/MSD associated with prep batch 280-95930 was performed on a sample from another client and/or job. The MS/MSD exhibited a spike compound recovery outside the control limits for Selenium. In addition, the MS/MSD spike compound recoveries and relative percent difference (RPD) data could not be reliably calculated for Uranium because the sample concentration was greater than four times the spike amounts. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The method required MS/MSD analyses could not be performed for prep batch 280-97606, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analyses data.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL MERCURY (CVAA)**

Sample B-6 (280-22635-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The sample was prepared and analyzed on 11/14/2011.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

### POTENTIALLY DISSOLVED MERCURY (CVAA)

Sample B-6 (280-22635-1) was analyzed for mercury in accordance with EPA Method 245.1. The sample was prepared and analyzed on 11/17/2011.

The method required MS/MSD analyses could not be performed for prep batch 280-96683, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analyses data.

No other difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

#### **TOTAL DISSOLVED SOLIDS**

Sample B-6 (280-22635-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 11/15/2011.

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Job ID: 280-22635-1 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

Due to matrix interference, a reduced aliquot size was used for the analysis sample B-6 (280-22635-1). The reporting limit and method detection limit have been elevated accordingly.

No other difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

#### **TOTAL SUSPENDED SOLIDS**

Sample B-6 (280-22635-1) was analyzed for total suspended solids in accordance with SM20 2540D. The sample was analyzed on 11/14/2011.

Due to matrix interference, a reduced aliquot size was used for the analysis sample B-6 (280-22635-1). The reporting limit and method detection limit have been elevated accordingly.

The Total Suspended Solids sample duplicate analysis data associated with analytical batch 280-96214 exhibited RPD data outside the QC limits. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

#### **HEXAVALENT CHROMIUM**

Sample B-6 (280-22635-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The sample was analyzed on 11/10/2011.

No difficulties were encountered during the hex chrome analysis.

All quality control parameters were within the acceptance limits.

#### TRIVALENT CHROMIUM

Sample B-6 (280-22635-1) was analyzed for trivalent chromium in accordance with SW-846 7196A\_CR3. The sample was analyzed on 11/18/2011.

No difficulties were encountered during the trivalent chromium analysis.

All quality control parameters were within the acceptance limits.

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# **Detection Summary**

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

Lab Sample ID: 280-22635-1

TestAmerica Job ID: 280-22635-1

Client Sample ID: B-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chloroform	0.21	J	1.0	0.16	ug/L		624	Total/NA
Xylenes, Total	0.48	J	2.0	0.19	ug/L	1	624	Total/NA
Acetone	2.5	J	20	1.9	ug/L	1	624	Total/NA
m-Xylene & p-Xylene	0.24	J	2.0	0.19	ug/L	1	624	Total/NA
o-Xylene	0.24	J	1.0	0.19	ug/L	1	624	Total/NA
Total BTEX	0.48	J	1.0	0.16	ug/L	1	624	Total/NA
Naphthalene	0.36	J	9.5	0.28	ug/L	1	625	Total/NA
Bis(2-ethylhexyl) phthalate	2.5	JB	9.5	0.53		1	625	Total/NA
Diethyl phthalate	0.69	J	9.5	0.36	ug/L	1	625	Total/NA
Aluminum	130000		100	18	ug/L	1	200.7 Rev 4.4	Total Recovera
Iron	200000		100	22	ug/L	1	200.7 Rev 4.4	Total Recovera
Aluminum	3700		100	18	ug/L	1	200.7 Rev 4.4	Potentially Dis
Iron	7400		100	22	ug/L	1	200.7 Rev 4.4	Potentially Dis
Antimony	0.22	J	2.0	0.16		1	200.8	Total Recovera
Arsenic	58		5.0	0.50		1	200.8	Total Recovera
Barium	2100		1.0	0.38	ug/L	1	200.8	Total Recovera
Beryllium	9.5		1.0	0.15		1	200.8	Total Recovera
Cadmium	1.6		1.0	0.040		1	200.8	Total Recovera
Chromium	93		3.0	0.88		1	200.8	Total Recovera
Copper	120	В	2.0	0.20		1	200.8	Total Recovera
Lead	100		1.0	0.10	•	1	200.8	Total Recovera
Manganese	1300		2.0	0.51	<del>.</del>	1	200.8	Total Recovera
Molybdenum	6.2		2.0	0.040		1	200.8	Total Recovera
Nickel	62		2.0	0.28		1	200.8	Total Recovera
Selenium	31		5.0		ug/L		200.8	Total Recovera
Silver	0.45	J	1.0	0.020		1	200.8	Total Recovera
Thallium	1.4		1.0	0.066		1	200.8	Total Recovera
Uranium	48		1.0	0.030			200.8	Total Recovera
Zinc	420		10		ug/L	1	200.8	Total Recovera
Antimony	0.43	.I	2.0	0.16		1	200.8	Potentially Dis
Arsenic	12		5.0	0.50			200.8	Potentially Dis
Barium	510		1.0			1	200.8	Potentially Dis
Beryllium	4.3		1.0	0.15	-	1	200.8	Potentially Dis
Cadmium	0.97	I R	1.0	0.040			200.8	Potentially Dis
Chromium	11	0.5	3.0	0.88		1	200.8	Potentially Dis
	36		2.0	0.20		1	200.8	Potentially Dis
Copper				0.20	-		200.8	Potentially Dis
Lead Managanasa	27		1.0			1		
Manganese	900		2.0	0.51		1	200.8	Potentially Dis
Molybdenum Nickel	3.6		2.0	0.040		1 1	200.8	Potentially Dis
	16		2.0	0.28			200.8	Potentially Dis
Selenium	6.3		5.0		ug/L	1	200.8	Potentially Dis
Uranium	30		1.0	0.030		1	200.8	Potentially Dis
Zinc	160		10		ug/L	1	200.8	Potentially Dis
Mercury	0.65		0.20	0.027	-	1	245.1	Total/NA
Chromium, hexavalent	0.0061	J 	0.020	0.0040		1	7196A	Total/NA
Cr (III)	0.087		0.020	0.020		1	7196A	Total/NA
Total Dissolved Solids	930		330		mg/L	1	SM 2540C	Total/NA
Total Suspended Solids	9400		250	69	mg/L	1	SM 2540D	Total/NA

# **Method Summary**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method	Method Description	Protocol	Laboratory
524	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL DEN
325	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL DEN
00.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
8.00	Metals (ICP/MS)	EPA	TAL DEN
15.1	Mercury (CVAA)	EPA	TAL DEN
196A	Chromium, Hexavalent	SW846	TAL DEN
196A	Chromium, Trivalent (Colorimetric)	SW846	TAL DEN
M 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
M 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN

#### **Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TestAmerica Job ID: 280-22635-1

# **Sample Summary**

Water

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

B-6

280-22635-1

TestAmerica Job ID: 280-22635-1

11/09/11 20:05 11/10/11 08:00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received

1

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Client: Pinyon Env Eng Resources, Inc.

TestAmerica Job ID: 280-22635-1 Project/Site: US 6 and BNSF

# Method: 624 - Volatile Organic Compounds (GC/MS)

Client Sample ID: B-6

Date Collected: 11/09/11 20:05 Date Received: 11/10/11 08:00

Lab Sample	ID: 280-22635-1
	Matrix: Water

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND ND	1.0	0.16	ug/L			11/22/11 20:22	
Dichlorobromomethane	ND	1.0	0.17	ug/L			11/22/11 20:22	
Bromoform	ND	1.0	0.19	ug/L			11/22/11 20:22	
Bromomethane	ND	2.0	0.21	ug/L			11/22/11 20:22	
Carbon tetrachloride	ND	1.0	0.19	ug/L			11/22/11 20:22	
Chlorobenzene	ND	1.0	0.17	ug/L			11/22/11 20:22	
Chlorodibromomethane	ND	1.0	0.17	ug/L			11/22/11 20:22	
Chloroethane	ND	2.0	0.41	ug/L			11/22/11 20:22	
2-Chloroethyl vinyl ether	ND	3.0	0.74	ug/L			11/22/11 20:22	
Chloroform	0.21 J	1.0	0.16	ug/L			11/22/11 20:22	
Chloromethane	ND	2.0	0.30	ug/L			11/22/11 20:22	
1,4-Dichlorobenzene	ND	1.0		ug/L			11/22/11 20:22	
1,3-Dichlorobenzene	ND	1.0	0.16				11/22/11 20:22	
1,2-Dichlorobenzene	ND	1.0		ug/L			11/22/11 20:22	
Dichlorodifluoromethane	ND	2.0		ug/L			11/22/11 20:22	
1,1-Dichloroethane	ND	1.0		ug/L			11/22/11 20:22	
1,2-Dichloroethane	ND	1.0		ug/L			11/22/11 20:22	
cis-1,2-Dichloroethene	ND	1.0		ug/L ug/L			11/22/11 20:22	
trans-1,2-Dichloroethene	ND ND	1.0		ug/L			11/22/11 20:22	
1,1-Dichloroethene	ND	1.0		ug/L			11/22/11 20:22	
1,2-Dichloropropane	ND	1.0		ug/L			11/22/11 20:22	
cis-1,3-Dichloropropene	ND	1.0		ug/L			11/22/11 20:22	
trans-1,3-Dichloropropene	ND	3.0		ug/L			11/22/11 20:22	
Ethylbenzene	ND	1.0		ug/L			11/22/11 20:22	
Methylene Chloride	ND	5.0		ug/L			11/22/11 20:22	
1,1,2,2-Tetrachloroethane	ND	1.0	0.20				11/22/11 20:22	
Tetrachloroethene	ND	1.0		ug/L			11/22/11 20:22	
Toluene	ND	1.0	0.17				11/22/11 20:22	
1,1,1-Trichloroethane	ND	1.0	0.16	ug/L			11/22/11 20:22	
1,1,2-Trichloroethane	ND	1.0	0.32	ug/L			11/22/11 20:22	
Trichloroethene	ND	1.0	0.16	ug/L			11/22/11 20:22	
Trichlorofluoromethane	ND	2.0	0.29	ug/L			11/22/11 20:22	
Vinyl chloride	ND	1.0	0.17	ug/L			11/22/11 20:22	
Xylenes, Total	0.48 J	2.0	0.19	ug/L			11/22/11 20:22	
Acetone	2.5 J	20	1.9	ug/L			11/22/11 20:22	
Acrolein	ND	100	2.8	ug/L			11/22/11 20:22	
Acrylonitrile	ND	100	1.4	ug/L			11/22/11 20:22	
2-Butanone (MEK)	ND	20	1.8	ug/L			11/22/11 20:22	
Carbon disulfide	ND	5.0	0.45	ug/L			11/22/11 20:22	
1,2-Dibromo-3-Chloropropane	ND	10	0.81	ug/L			11/22/11 20:22	
Ethylene Dibromide	ND	5.0		ug/L			11/22/11 20:22	
1,2-Dichloroethene, Total	ND	5.0		ug/L			11/22/11 20:22	
1,3-Dichloropropene, Total	ND	5.0		ug/L			11/22/11 20:22	
1,4-Dioxane	ND	250		ug/L			11/22/11 20:22	
Hexane	ND	5.0		ug/L			11/22/11 20:22	
2-Hexanone	ND	20		ug/L			11/22/11 20:22	
4-Methyl-2-pentanone (MIBK)	ND	20		ug/L			11/22/11 20:22	
Methyl tert-butyl ether	ND	20		ug/L			11/22/11 20:22	
Styrene	ND	5.0		ug/L ug/L			11/22/11 20:22	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B-6

Date Collected: 11/09/11 20:05 Date Received: 11/10/11 08:00

Lab Sample ID: 280-22635-1

Matrix:	water

Analyzed	Dil Fac	
/22/11 20:22		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.17	ug/L			11/22/11 20:22	1
1,2,3-Trichloropropane	ND		5.0	0.27	ug/L			11/22/11 20:22	1
Dibromomethane	ND		5.0	0.17	ug/L			11/22/11 20:22	1
Vinyl acetate	ND		10	0.94	ug/L			11/22/11 20:22	1
m-Xylene & p-Xylene	0.24	J	2.0	0.19	ug/L			11/22/11 20:22	1
o-Xylene	0.24	J	1.0	0.19	ug/L			11/22/11 20:22	1
Total BTEX	0.48	J	1.0	0.16	ug/L			11/22/11 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepar	red Analyzed	Dil Fac
Toluene-d8 (Surr)	115		80 - 120		11/22/11 20:2	2 1
1,2-Dichloroethane-d4 (Surr)	94		73 - 122		11/22/11 20:2	2 1
4-Bromofluorobenzene (Surr)	105		79 - 119		11/22/11 20:2	2 1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Method: 625 - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: B-6

Date Collected: 11/09/11 20:05 Date Received: 11/10/11 08:00

Lab Sample ID: 280-22635-1

**Matrix: Water** 

Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.5	0.27	ug/L		11/10/11 11:30	11/15/11 08:20	1
Benzidine	ND		140	47	•		11/10/11 11:30	11/15/11 08:20	1
1,2,4-Trichlorobenzene	ND		9.5	0.27	ug/L		11/10/11 11:30	11/15/11 08:20	1
Hexachlorobenzene	ND		9.5	0.63	ug/L		11/10/11 11:30	11/15/11 08:20	1
Bis(2-chloroethyl)ether	ND		9.5	0.39	ug/L		11/10/11 11:30	11/15/11 08:20	1
2-Chloronaphthalene	ND		9.5	0.25	ug/L		11/10/11 11:30	11/15/11 08:20	1
2-Chlorophenol	ND		9.5	1.9	ug/L		11/10/11 11:30	11/15/11 08:20	1
2-Methylphenol	ND		9.5	0.93	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,4,6-Trichlorophenol	ND		19	0.28	ug/L		11/10/11 11:30	11/15/11 08:20	1
3,3'-Dichlorobenzidine	ND		47	1.9	ug/L		11/10/11 11:30	11/15/11 08:20	1
Hexachloroethane	ND		9.5	2.0	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,4-Dichlorophenol	ND		9.5	0.61	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,4-Dimethylphenol	ND		9.5	0.55	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,4-Dinitrotoluene	ND		9.5	1.6	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,6-Dinitrotoluene	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
1,2-Diphenylhydrazine(as	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Azobenzene)					Ū				
Fluoranthene	ND		9.5	0.19	ug/L		11/10/11 11:30	11/15/11 08:20	1
4-Bromophenyl phenyl ether	ND		9.5	0.41	ug/L		11/10/11 11:30	11/15/11 08:20	1
4-Chlorophenyl phenyl ether	ND		9.5	1.6	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,2'-Oxybis(1-chloropropane)	ND		9.5	0.27	ug/L		11/10/11 11:30	11/15/11 08:20	1
Bis(2-chloroethoxy)methane	ND		9.5	0.92	ug/L		11/10/11 11:30	11/15/11 08:20	1
Hexachlorobutadiene	ND		9.5	3.1	ug/L		11/10/11 11:30	11/15/11 08:20	1
Hexachlorocyclopentadiene	ND		47	1.5	ug/L		11/10/11 11:30	11/15/11 08:20	1
Isophorone	ND		9.5	0.20	ug/L		11/10/11 11:30	11/15/11 08:20	1
Naphthalene	0.36	J	9.5	0.28	ug/L		11/10/11 11:30	11/15/11 08:20	1
Nitrobenzene	ND		9.5	0.77	ug/L		11/10/11 11:30	11/15/11 08:20	1
2-Nitrophenol	ND		19	0.37	ug/L		11/10/11 11:30	11/15/11 08:20	1
2,4-Dinitrophenol	ND		57	9.5	ug/L		11/10/11 11:30	11/15/11 08:20	1
4-Nitrophenol	ND		47	1.2	ug/L		11/10/11 11:30	11/15/11 08:20	1
4,6-Dinitro-2-methylphenol	ND		57	3.8	ug/L		11/10/11 11:30	11/15/11 08:20	1
N-Nitrosodimethylamine	ND		9.5	0.28	ug/L		11/10/11 11:30	11/15/11 08:20	1
N-Nitrosodi-n-propylamine	ND		9.5	0.33	ug/L		11/10/11 11:30	11/15/11 08:20	1
N-Nitrosodiphenylamine	ND		9.5	0.42	ug/L		11/10/11 11:30	11/15/11 08:20	1
Pentachlorophenol	ND		57		ug/L		11/10/11 11:30	11/15/11 08:20	1
Phenol	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Bis(2-ethylhexyl) phthalate	2.5	JB	9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Butyl benzyl phthalate	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Di-n-butyl phthalate	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Di-n-octyl phthalate	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Diethyl phthalate	0.69		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	· · · · · · · · · · · · · · · · ·
Dimethyl phthalate	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Benzo[a]anthracene	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Benzo[a]pyrene	ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	· · 1
Benzo[b]fluoranthene	ND ND		9.5		ug/L		11/10/11 11:30	11/15/11 08:20	1
Benzo[k]fluoranthene	ND ND		9.5 9.5		ug/L ug/L		11/10/11 11:30	11/15/11 08:20	1
Anthracene								11/15/11 08:20	
	ND ND		9.5 9.5		ug/L ug/L		11/10/11 11:30 11/10/11 11:30	11/15/11 08:20	1
Acenaphthylene Chrysene	ND ND		9.0	0.47	ug/L		11/10/11 11.30	11/13/11 00.20	

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B-6 Lab Sample ID: 280-22635-1

Date Collected: 11/09/11 20:05 Matrix: Water Date Received: 11/10/11 08:00

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Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		9.5	0.47	ug/L		11/10/11 11:30	11/15/11 08:20	1
Fluorene	ND		9.5	0.29	ug/L		11/10/11 11:30	11/15/11 08:20	1
Phenanthrene	ND		9.5	0.25	ug/L		11/10/11 11:30	11/15/11 08:20	1
Dibenz(a,h)anthracene	ND		9.5	0.48	ug/L		11/10/11 11:30	11/15/11 08:20	1
Indeno[1,2,3-cd]pyrene	ND		9.5	0.62	ug/L		11/10/11 11:30	11/15/11 08:20	1
Pyrene	ND		9.5	0.35	ug/L		11/10/11 11:30	11/15/11 08:20	1
3 & 4 Methylphenol	ND		9.5	0.76	ug/L		11/10/11 11:30	11/15/11 08:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		36 - 120				11/10/11 11:30	11/15/11 08:20	1
2-Fluorophenol	90		30 - 120				11/10/11 11:30	11/15/11 08:20	1
2,4,6-Tribromophenol	101		50 - 120				11/10/11 11:30	11/15/11 08:20	1
Nitrobenzene-d5	88		45 - 120				11/10/11 11:30	11/15/11 08:20	1
Phenol-d5	92		36 - 120				11/10/11 11:30	11/15/11 08:20	1
Terphenyl-d14	66		52 - 120				11/10/11 11:30	11/15/11 08:20	1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

Lab Sample ID: 280-22635-1

### Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: B-6

Date Collected: 11/09/11 20:05

Matrix: Water

Date Received: 11/10/11 08:00

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

 Aluminum
 130000
 100
 18 ug/L
 11/14/11 14:00
 11/16/11 04:31

 Iron
 200000
 100
 22 ug/L
 11/14/11 14:00
 11/16/11 04:31

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

Lab Sample ID: 280-22635-1

Matrix: Water

Client Sample ID: B-6

Method: 200.7 Rev 4.4 - Metals (ICP) - Potentially Dissolved

Date Collected: 11/09/11 20:05 Date Received: 11/10/11 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3700		100	18	ug/L		11/14/11 14:00	11/16/11 03:06	1
Iron	7400		100	22	ug/L		11/14/11 14:00	11/16/11 03:06	1

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

# Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: B-6 Lab Sample ID: 280-22635-1 Date Collected: 11/09/11 20:05 **Matrix: Water** 

Date Received: 11/10/11 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.22	J	2.0	0.16	ug/L		11/14/11 14:00	11/15/11 00:30	1
Arsenic	58		5.0	0.50	ug/L		11/14/11 14:00	11/15/11 00:30	1
Barium	2100		1.0	0.38	ug/L		11/14/11 14:00	11/15/11 00:30	1
Beryllium	9.5		1.0	0.15	ug/L		11/14/11 14:00	11/15/11 00:30	1
Cadmium	1.6		1.0	0.040	ug/L		11/14/11 14:00	11/15/11 00:30	1
Chromium	93		3.0	0.88	ug/L		11/14/11 14:00	11/15/11 00:30	1
Copper	120	В	2.0	0.20	ug/L		11/14/11 14:00	11/15/11 00:30	1
Lead	100		1.0	0.10	ug/L		11/14/11 14:00	11/15/11 00:30	1
Manganese	1300		2.0	0.51	ug/L		11/14/11 14:00	11/15/11 00:30	1
Molybdenum	6.2		2.0	0.040	ug/L		11/14/11 14:00	11/15/11 00:30	1
Nickel	62		2.0	0.28	ug/L		11/14/11 14:00	11/15/11 00:30	1
Selenium	31		5.0	1.0	ug/L		11/14/11 14:00	11/15/11 00:30	1
Silver	0.45	J	1.0	0.020	ug/L		11/14/11 14:00	11/15/11 00:30	1
Thallium	1.4		1.0	0.066	ug/L		11/14/11 14:00	11/15/11 00:30	1
Uranium	48		1.0	0.030	ug/L		11/14/11 14:00	11/15/11 00:30	1
Zinc	420		10	2.0	ug/L		11/14/11 14:00	11/15/11 00:30	1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: B-6 Lab Sample ID: 280-22635-1 Date Collected: 11/09/11 20:05 **Matrix: Water** 

Date Received: 11/10/11 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.43	J	2.0	0.16	ug/L		11/14/11 06:30	11/15/11 17:06	1
Arsenic	12		5.0	0.50	ug/L		11/14/11 06:30	11/15/11 17:06	1
Barium	510		1.0	0.38	ug/L		11/14/11 06:30	11/15/11 17:06	1
Beryllium	4.3		1.0	0.15	ug/L		11/14/11 06:30	11/15/11 17:06	1
Cadmium	0.97	JB	1.0	0.040	ug/L		11/14/11 06:30	11/15/11 17:06	1
Chromium	11		3.0	0.88	ug/L		11/14/11 06:30	11/15/11 17:06	1
Copper	36		2.0	0.20	ug/L		11/14/11 06:30	11/15/11 17:06	1
Lead	27		1.0	0.10	ug/L		11/14/11 06:30	11/15/11 17:06	1
Manganese	900		2.0	0.51	ug/L		11/14/11 06:30	11/15/11 17:06	1
Molybdenum	3.6		2.0	0.040	ug/L		11/28/11 08:30	11/28/11 20:35	1
Nickel	16		2.0	0.28	ug/L		11/14/11 06:30	11/15/11 17:06	1
Selenium	6.3		5.0	1.0	ug/L		11/14/11 06:30	11/15/11 17:06	1
Silver	ND		1.0	0.020	ug/L		11/14/11 06:30	11/15/11 17:06	1
Thallium	ND		1.0	0.066	ug/L		11/14/11 06:30	11/15/11 17:06	1
Uranium	30		1.0	0.030	ug/L		11/14/11 06:30	11/15/11 17:06	1
Zinc	160		10	2.0	ug/L		11/14/11 06:30	11/15/11 17:06	1

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: B-6

Lab Sample ID: 280-22635-1 Date Collected: 11/09/11 20:05

**Matrix: Water** 

Date Received: 11/10/11 08:00

Result Qualifier RL Dil Fac Analyte MDL Unit Prepared Analyzed 0.20 11/14/11 18:58 0.027 ug/L 11/14/11 12:45 Mercury 0.65

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

Method: 245.1 - Mercury (CVAA) - Potentially Dissolved

Client Sample ID: B-6 Lab Sample ID: 280-22635-1

Date Collected: 11/09/11 20:05 Matrix: Water

Date Received: 11/10/11 08:00

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 ND
 0.20
 0.027
 ug/L
 11/17/11 10:30
 11/17/11 19:44
 1

**5** 

7

8

4.0

11

13

14

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### **General Chemistry**

Client Sample ID: B-6

Lab Sample ID: 280-22635-1

**Matrix: Water** 

Date Collected: 11/09/11 20:05 Date Received: 11/10/11 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.0061	J	0.020	0.0040	mg/L			11/10/11 11:04	1
Cr (III)	0.087		0.020	0.020	mg/L			11/18/11 07:49	1
Total Dissolved Solids	930		330	160	mg/L			11/15/11 09:43	1
Total Suspended Solids	9400		250	69	mg/L			11/14/11 13:37	1

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# **Surrogate Summary**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

### Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				Percent Su
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(80-120)	(73-122)	(79-119)
280-22635-1	B-6	115	94	105
280-22635-1 MS	B-6	118	93	96
280-22635-1 MSD	B-6	113	88	92
LCS 280-97497/21	Lab Control Sample	97	75	78 X
MB 280-97497/22	Method Blank	103	80	92

#### **Surrogate Legend**

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

### Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

_				Percent Sui	rogate Reco	very (Accepta	ance Limits
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(36-120)	(30-120)	(50-120)	(45-120)	(36-120)	(52-120)
280-22635-1	B-6	81	90	101	88	92	66
LCS 280-95599/2-A	Lab Control Sample	79	75	92	86	81	86
LCSD 280-95599/3-A	Lab Control Sample Dup	83	82	96	89	84	89
MB 280-95599/1-A	Method Blank	84	86	94	98	91	107

### Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

TBP = 2,4,6-Tribromophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPH = Terphenyl-d14

RL

1.0

1.0

MDL Unit

0.16 ug/L

0.17 ug/L

D

Prepared

TestAmerica Job ID: 280-22635-1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

# Method: 624 - Volatile Organic Compounds (GC/MS)

MB MB

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

Result Qualifier

Lab Sample ID: MB 280-97497/22

**Matrix: Water** 

Analyte

Benzene

Acrylonitrile

1,4-Dioxane

2-Hexanone

Hexane

Styrene

2-Butanone (MEK)

Ethylene Dibromide

1,2-Dichloroethene, Total

1,3-Dichloropropene, Total

4-Methyl-2-pentanone (MIBK)

Methyl tert-butyl ether

1,2-Dibromo-3-Chloropropane

Carbon disulfide

Analysis Batch: 97497

Dichlorobromomethane

Client Sample ID: Method Blank

Analyzed

11/22/11 19:59

11/22/11 19:59

Prep Type: Total/NA

Dil Fac

Dichioropromornethane	ND	1.0	O.17 ug/L	11/22/11 19.59	
Bromoform	ND	1.0	0.19 ug/L	11/22/11 19:59	1
Bromomethane	ND	2.0	0.21 ug/L	11/22/11 19:59	1
Carbon tetrachloride	ND	1.0	0.19 ug/L	11/22/11 19:59	1
Chlorobenzene	ND	1.0	0.17 ug/L	11/22/11 19:59	1
Chlorodibromomethane	ND	1.0	0.17 ug/L	11/22/11 19:59	1
Chloroethane	ND	2.0	0.41 ug/L	11/22/11 19:59	1
2-Chloroethyl vinyl ether	ND	3.0	0.74 ug/L	11/22/11 19:59	1
Chloroform	ND	1.0	0.16 ug/L	11/22/11 19:59	1
Chloromethane	ND	2.0	0.30 ug/L	11/22/11 19:59	1
1,4-Dichlorobenzene	ND	1.0	0.16 ug/L	11/22/11 19:59	1
1,3-Dichlorobenzene	ND	1.0	0.16 ug/L	11/22/11 19:59	1
1,2-Dichlorobenzene	ND	1.0	0.13 ug/L	11/22/11 19:59	1
Dichlorodifluoromethane	ND	2.0	0.31 ug/L	11/22/11 19:59	1
1,1-Dichloroethane	ND	1.0	0.16 ug/L	11/22/11 19:59	1
1,2-Dichloroethane	ND	1.0	0.13 ug/L	11/22/11 19:59	1
cis-1,2-Dichloroethene	ND	1.0	0.15 ug/L	11/22/11 19:59	1
trans-1,2-Dichloroethene	ND	1.0	0.15 ug/L	11/22/11 19:59	1
1,1-Dichloroethene	ND	1.0	0.14 ug/L	11/22/11 19:59	1
1,2-Dichloropropane	ND	1.0	0.13 ug/L	11/22/11 19:59	1
cis-1,3-Dichloropropene	ND	1.0	0.16 ug/L	11/22/11 19:59	1
trans-1,3-Dichloropropene	ND	3.0	0.19 ug/L	11/22/11 19:59	1
Ethylbenzene	ND	1.0	0.16 ug/L	11/22/11 19:59	1
Methylene Chloride	ND	5.0	0.32 ug/L	11/22/11 19:59	1
1,1,2,2-Tetrachloroethane	ND	1.0	0.20 ug/L	11/22/11 19:59	1
Tetrachloroethene	ND	1.0	0.20 ug/L	11/22/11 19:59	1
Toluene	ND	1.0	0.17 ug/L	11/22/11 19:59	1
1,1,1-Trichloroethane	ND	1.0	0.16 ug/L	11/22/11 19:59	1
1,1,2-Trichloroethane	ND	1.0	0.32 ug/L	11/22/11 19:59	1
Trichloroethene	ND	1.0	0.16 ug/L	11/22/11 19:59	1
Trichlorofluoromethane	ND	2.0	0.29 ug/L	11/22/11 19:59	1
Vinyl chloride	ND	1.0	0.17 ug/L	11/22/11 19:59	1
Xylenes, Total	ND	2.0	0.19 ug/L	11/22/11 19:59	1
Acetone	ND	20	1.9 ug/L	11/22/11 19:59	1
Acrolein	ND	100	2.8 ug/L	11/22/11 19:59	1
A 1 90.91 .		400	4.4	44/00/44 40 50	- 4

TestAmerica Denver

11/22/11 19:59

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11/22/11 19:59

11/22/11 19:59

11/22/11 19:59

100

20

5.0

10

5.0

5.0

5.0

250

5.0

20

20

20

5.0

1.4 ug/L

1.8 ug/L

0.45 ug/L

0.81 ug/L

0.18 ug/L

0.15 ug/L

0.16 ug/L

71 ug/L

0.42 ug/L

1.4 ug/L

0.49 ug/L

0.25 ug/L

0.17 ug/L

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-97497/22

**Matrix: Water** 

**Analysis Batch: 97497** 

Client Samp	ole ID:	Meth	od Bla	ank
	Prep 1	Гуре:	Total	ΝA

	MB MB							
Analyte	Result Qualifier	RL	MDL (	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND ND	5.0	0.17 ι	ug/L			11/22/11 19:59	1
1,2,3-Trichloropropane	ND	5.0	0.27 ι	ug/L			11/22/11 19:59	1
Dibromomethane	ND	5.0	0.17 ι	ug/L			11/22/11 19:59	1
Vinyl acetate	ND	10	0.94 ι	ug/L			11/22/11 19:59	1
m-Xylene & p-Xylene	ND	2.0	0.19 ι	ug/L			11/22/11 19:59	1
o-Xylene	ND	1.0	0.19 ι	ug/L			11/22/11 19:59	1
Total BTEX	ND	1.0	0.16 ι	ug/L			11/22/11 19:59	1

MB MB Surrogate Qualifier Limits Dil Fac %Recovery Prepared Analyzed Toluene-d8 (Surr) 103 80 - 120 11/22/11 19:59 1,2-Dichloroethane-d4 (Surr) 80 73 - 122 11/22/11 19:59 4-Bromofluorobenzene (Surr) 92 79 - 119 11/22/11 19:59

LCS LCS

Lab Sample ID: LCS 280-97497/21

**Matrix: Water** 

Xylenes, Total

**Analysis Batch: 97497** 

Client Sample I	D: Lab Control Sample
	Prep Type: Total/NA

%Rec.

1

Analyte Added Result Qualifier Unit D %Rec Limits Benzene 5.00 5.63 ug/L 113 37 - 151 Dichlorobromomethane 5.00 5.39 108 ug/L 35 - 155Bromoform 5.00 5.47 109 45 - 169 ug/L Carbon tetrachloride 5.00 89 70 - 140 4.45 ug/L

Spike

Chlorobenzene 5.00 5.32 106 37 - 160 ug/L Chlorodibromomethane 5.00 5.77 53 \_ 149 ug/L 115 Chloroethane 5.00 3.97 ug/L 79 14 - 230 2-Chloroethyl vinyl ether 5.00 3.76 ug/L 75 10 - 305 Chloroform 5.00 5.18 ug/L 104 51 - 138 Chloromethane 5.00 3.43 69 10 - 273 ug/L 1,4-Dichlorobenzene 5.00 5.31 ug/L 106 18 - 190 1,3-Dichlorobenzene 5.00 4.72 ug/L 94 59 - 156 18 - 190 1,2-Dichlorobenzene 5.00 4.88 ug/L 98 1,1-Dichloroethane 5.00 4.94 59 - 155 ug/L 99 1,2-Dichloroethane 5.00 4.63 ug/L 93 49 - 155 trans-1,2-Dichloroethene 5.00 5.02 ug/L 100 54 - 156

1,1-Dichloroethene 5.00 5 22 104 10 - 234 ug/L 1,2-Dichloropropane 5.00 5.19 104 10 - 210 ug/L cis-1,3-Dichloropropene 5.00 5.46 109 10 - 227 ug/L trans-1,3-Dichloropropene 5.00 5.38 108 17 - 183 ug/L Ethylbenzene 5.00 5.09 102 37 - 162 ug/L Methylene Chloride 5.00 5.85 ug/L 117 10 - 221 1,1,2,2-Tetrachloroethane 5.00 4.66 ug/L 93 46 - 157

Tetrachloroethene	5.00	5.37	ug/L	107	64 - 148
Toluene	5.00	5.12	ug/L	102	47 - 150
1,1,1-Trichloroethane	5.00	4.48	ug/L	90	52 - 162
1,1,2-Trichloroethane	5.00	5.12	ug/L	102	52 - 150
Trichloroethene	5.00	5.00	ug/L	100	71 - 157
Trichlorofluoromethane	5.00	3.16	ug/L	63	17 - 181
Vinyl chloride	5.00	3.55	ug/L	71	10 - 251

15.0

TestAmerica Denver

98

50 - 150

14.8

ug/L

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-97497/21

**Matrix: Water** 

**Analysis Batch: 97497** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	20.0	19.9	J	ug/L		99	42 - 170	
1,3-Dichloropropene, Total	10.0	10.8		ug/L		108	17 - 183	
Hexane	4.88	4.23	J	ug/L		87	69 - 143	

LCS LCS Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 97 80 - 120 75 73 - 122 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) 78 X 79 - 119

Lab Sample ID: 280-22635-1 MS

**Matrix: Water** 

Client Sample ID	. D-0
Prep Type: Tota	ıl/NA

Analysis Batch: 97497									
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	ND		5.00	5.70		ug/L		114	37 _ 151
Dichlorobromomethane	ND		5.00	5.38		ug/L		108	35 - 155
Bromoform	ND		5.00	5.78		ug/L		116	45 - 169
Carbon tetrachloride	ND		5.00	4.63		ug/L		93	70 - 140
Chlorobenzene	ND		5.00	5.48		ug/L		110	37 _ 160
Chlorodibromomethane	ND		5.00	5.90		ug/L		118	53 - 149
Chloroethane	ND		5.00	4.11		ug/L		82	14 - 230
2-Chloroethyl vinyl ether	ND		5.00	1.33	J	ug/L		27	10 - 305
Chloroform	0.21	J	5.00	5.56		ug/L		107	51 - 138
Chloromethane	ND		5.00	3.83		ug/L		77	10 - 273
1,4-Dichlorobenzene	ND		5.00	5.02		ug/L		100	18 - 190
1,3-Dichlorobenzene	ND		5.00	5.29		ug/L		106	59 - 156
1,2-Dichlorobenzene	ND		5.00	5.15		ug/L		103	18 - 190
1,1-Dichloroethane	ND		5.00	5.09		ug/L		102	59 - 155
1,2-Dichloroethane	ND		5.00	4.81		ug/L		96	49 _ 155
trans-1,2-Dichloroethene	ND		5.00	5.11		ug/L		102	54 - 156
1,1-Dichloroethene	ND		5.00	5.45		ug/L		109	10 _ 234
1,2-Dichloropropane	ND		5.00	5.31		ug/L		106	10 - 210
cis-1,3-Dichloropropene	ND		5.00	5.54		ug/L		111	10 - 227
trans-1,3-Dichloropropene	ND		5.00	5.49		ug/L		110	17 _ 183
Ethylbenzene	ND		5.00	5.33		ug/L		107	37 _ 162
Methylene Chloride	ND		5.00	5.56		ug/L		111	10 _ 221
1,1,2,2-Tetrachloroethane	ND		5.00	5.14		ug/L		103	46 _ 157
Tetrachloroethene	ND		5.00	5.60		ug/L		112	64 - 148
Toluene	ND		5.00	5.31		ug/L		106	47 _ 150
1,1,1-Trichloroethane	ND		5.00	4.63		ug/L		93	52 _ 162
1,1,2-Trichloroethane	ND		5.00	5.62		ug/L		112	52 _ 150
Trichloroethene	ND		5.00	5.04		ug/L		101	71 _ 157
Trichlorofluoromethane	ND		5.00	3.58		ug/L		72	17 - 181
Vinyl chloride	ND		5.00	3.95		ug/L		79	10 _ 251
Xylenes, Total	0.48	J	15.0	15.6		ug/L		101	50 - 150
Acetone	2.5	J	20.0	20.2		ug/L		88	42 - 170
1,3-Dichloropropene, Total	ND		10.0	11.0		ug/L		110	17 - 183
Hexane	ND		4.88	4.64		ug/L		95	69 - 143

### Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-22635-1 MS

**Matrix: Water** 

**Analysis Batch: 97497** 

Client Sample ID: B-6 **Prep Type: Total/NA** 

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	118		80 - 120
1,2-Dichloroethane-d4 (Surr)	93		73 - 122
4-Bromofluorobenzene (Surr)	96		79 - 119

Lab Sample ID: 280-22635-1 MSD

**Matrix: Water** 

Client Sample ID: B-6 Prep Type: Total/NA

Analysis Batch: 97497			<b>.</b>						~-		
	•	Sample	Spike		MSD		_	0/5	%Rec.		RPD
Analyte Benzene	ND	Qualifier		5.96	Qualifier	Unit	D	<b>%Rec</b> 119	37 <sub>-</sub> 151	RPD 4	Limit 30
						ug/L					
Dichlorobromomethane	ND		5.00	5.66		ug/L		113	35 - 155	5	30
Bromoform	ND		5.00	5.78		ug/L		116	45 - 169	0	30
Carbon tetrachloride	ND		5.00	4.71		ug/L		94	70 - 140	2	30
Chlorobenzene	ND		5.00	5.68		ug/L		114	37 - 160	4	30
Chlorodibromomethane	ND		5.00	6.05		ug/L		121	53 - 149	3	30
Chloroethane	ND		5.00	4.71		ug/L		94	14 - 230	14	30
2-Chloroethyl vinyl ether	ND		5.00	1.28	J	ug/L		26	10 - 305	4	45
Chloroform	0.21	J	5.00	5.74		ug/L		111	51 - 138	3	30
Chloromethane	ND		5.00	4.06		ug/L		81	10 - 273	6	30
1,4-Dichlorobenzene	ND		5.00	5.26		ug/L		105	18 - 190	5	30
1,3-Dichlorobenzene	ND		5.00	5.33		ug/L		107	59 - 156	1	30
1,2-Dichlorobenzene	ND		5.00	5.32		ug/L		106	18 - 190	3	30
1,1-Dichloroethane	ND		5.00	5.31		ug/L		106	59 - 155	4	30
1,2-Dichloroethane	ND		5.00	4.86		ug/L		97	49 - 155	1	30
trans-1,2-Dichloroethene	ND		5.00	5.32		ug/L		106	54 - 156	4	30
1,1-Dichloroethene	ND		5.00	5.82		ug/L		116	10 - 234	7	30
1,2-Dichloropropane	ND		5.00	5.49		ug/L		110	10 - 210	3	30
cis-1,3-Dichloropropene	ND		5.00	5.73		ug/L		115	10 - 227	3	30
trans-1,3-Dichloropropene	ND		5.00	5.64		ug/L		113	17 - 183	3	30
Ethylbenzene	ND		5.00	5.38		ug/L		108	37 - 162	1	30
Methylene Chloride	ND		5.00	5.75		ug/L		115	10 - 221	3	30
1,1,2,2-Tetrachloroethane	ND		5.00	5.27		ug/L		105	46 - 157	2	30
Tetrachloroethene	ND		5.00	5.71		ug/L		114	64 - 148	2	30
Toluene	ND		5.00	5.47		ug/L		109	47 - 150	3	30
1,1,1-Trichloroethane	ND		5.00	4.75		ug/L		95	52 - 162	2	30
1,1,2-Trichloroethane	ND		5.00	5.51		ug/L		110	52 - 150	2	30
Trichloroethene	ND		5.00	5.19		ug/L		104	71 - 157	3	30
Trichlorofluoromethane	ND		5.00	3.81		ug/L		76	17 - 181	6	30
Vinyl chloride	ND		5.00	4.18		ug/L		84	10 _ 251	5	30
Xylenes, Total	0.48	J	15.0	16.0		ug/L		104	50 - 150	3	30
Acetone	2.5	J	20.0	20.5		ug/L		90	42 - 170	2	20
1,3-Dichloropropene, Total	ND		10.0	11.4		ug/L		114	17 - 183	3	30
Hexane	ND		4.88	4.94	J	ug/L		101	69 - 143	6	20

ISD	MSD
	IVIOD

Surrogate	7₀Recovery	Qualifier	LIIIIII
Toluene-d8 (Surr)	113		80 - 120
1,2-Dichloroethane-d4 (Surr)	88		73 - 122
4-Bromofluorobenzene (Surr)	92		79 - 119

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 625 - Semivolatile Organic Compounds (GC/MS)

MB MB

Lab Sample ID: MB 280-95599/1-	A
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**Matrix: Water** 

Anthracene

Chrysene

Acenaphthylene

Benzo[g,h,i]perylene

**Analysis Batch: 96362** 

<b>Client Sample ID: Method Blank</b>
Prep Type: Total/NA
Pren Batch: 95599

	MB	MB							
Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10	0.28	ug/L		11/10/11 09:15	11/15/11 01:40	1
Benzidine	ND		150	50	ug/L		11/10/11 09:15	11/15/11 01:40	1
1,2,4-Trichlorobenzene	ND		10	0.28	ug/L		11/10/11 09:15	11/15/11 01:40	1
Hexachlorobenzene	ND		10	0.66	ug/L		11/10/11 09:15	11/15/11 01:40	1
Bis(2-chloroethyl)ether	ND		10	0.41	ug/L		11/10/11 09:15	11/15/11 01:40	1
2-Chloronaphthalene	ND		10	0.26	ug/L		11/10/11 09:15	11/15/11 01:40	1
2-Chlorophenol	ND		10	2.0	ug/L		11/10/11 09:15	11/15/11 01:40	1
2-Methylphenol	ND		10	0.98	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,4,6-Trichlorophenol	ND		20	0.29	ug/L		11/10/11 09:15	11/15/11 01:40	1
3,3'-Dichlorobenzidine	ND		50	2.0	ug/L		11/10/11 09:15	11/15/11 01:40	1
Hexachloroethane	ND		10	2.1	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,4-Dichlorophenol	ND		10	0.64	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,4-Dimethylphenol	ND		10	0.58	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,4-Dinitrotoluene	ND		10	1.7	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/10/11 09:15	11/15/11 01:40	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	0.23	ug/L		11/10/11 09:15	11/15/11 01:40	1
Fluoranthene	ND		10	0.20	ug/L		11/10/11 09:15	11/15/11 01:40	1
4-Bromophenyl phenyl ether	ND		10	0.43	ug/L		11/10/11 09:15	11/15/11 01:40	1
4-Chlorophenyl phenyl ether	ND		10	1.7	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,2'-Oxybis(1-chloropropane)	ND		10	0.28	ug/L		11/10/11 09:15	11/15/11 01:40	1
Bis(2-chloroethoxy)methane	ND		10	0.97	ug/L		11/10/11 09:15	11/15/11 01:40	1
Hexachlorobutadiene	ND		10	3.3	ug/L		11/10/11 09:15	11/15/11 01:40	1
Hexachlorocyclopentadiene	ND		50	1.5	ug/L		11/10/11 09:15	11/15/11 01:40	1
Isophorone	ND		10	0.21	ug/L		11/10/11 09:15	11/15/11 01:40	1
Naphthalene	ND		10	0.29	ug/L		11/10/11 09:15	11/15/11 01:40	1
Nitrobenzene	ND		10	0.81	ug/L		11/10/11 09:15	11/15/11 01:40	1
2-Nitrophenol	ND		20	0.39	ug/L		11/10/11 09:15	11/15/11 01:40	1
2,4-Dinitrophenol	ND		60	10	ug/L		11/10/11 09:15	11/15/11 01:40	1
4-Nitrophenol	ND		50	1.2	ug/L		11/10/11 09:15	11/15/11 01:40	1
4,6-Dinitro-2-methylphenol	ND		60	4.0	ug/L		11/10/11 09:15	11/15/11 01:40	1
N-Nitrosodimethylamine	ND		10	0.29	ug/L		11/10/11 09:15	11/15/11 01:40	1
N-Nitrosodi-n-propylamine	ND		10	0.35	ug/L		11/10/11 09:15	11/15/11 01:40	1
N-Nitrosodiphenylamine	ND		10	0.44	ug/L		11/10/11 09:15	11/15/11 01:40	1
Pentachlorophenol	ND		60	20	ug/L		11/10/11 09:15	11/15/11 01:40	1
Phenol	ND		10	2.0	ug/L		11/10/11 09:15	11/15/11 01:40	1
Bis(2-ethylhexyl) phthalate	2.59	J	10	0.56	ug/L		11/10/11 09:15	11/15/11 01:40	1
Butyl benzyl phthalate	ND		10	1.0	ug/L		11/10/11 09:15	11/15/11 01:40	1
Di-n-butyl phthalate	ND		10	1.2	ug/L		11/10/11 09:15	11/15/11 01:40	1
Di-n-octyl phthalate	ND		10		ug/L		11/10/11 09:15	11/15/11 01:40	1
Diethyl phthalate	ND		10		ug/L		11/10/11 09:15	11/15/11 01:40	1
Dimethyl phthalate	ND		10		ug/L		11/10/11 09:15	11/15/11 01:40	1
Benzo[a]anthracene	ND		10	0.35	ug/L		11/10/11 09:15	11/15/11 01:40	1
Benzo[a]pyrene	ND		10		ug/L		11/10/11 09:15	11/15/11 01:40	1
Benzo[b]fluoranthene	ND		10		ug/L		11/10/11 09:15	11/15/11 01:40	1
Benzo[k]fluoranthene	ND		10		ug/L		11/10/11 09:15	11/15/11 01:40	1

11/15/11 01:40

11/15/11 01:40

11/15/11 01:40

11/15/11 01:40

11/10/11 09:15

11/10/11 09:15

11/10/11 09:15

11/10/11 09:15

10

10

10

10

0.42 ug/L

0.49 ug/L

0.54 ug/L

0.50 ug/L

ND

ND

ND

ND

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-95599/1-A

**Matrix: Water** 

Analysis Batch: 96362

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 95599

	111.5 111.5							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND ND	10	0.31	ug/L		11/10/11 09:15	11/15/11 01:40	1
Phenanthrene	ND	10	0.26	ug/L		11/10/11 09:15	11/15/11 01:40	1
Dibenz(a,h)anthracene	ND	10	0.51	ug/L		11/10/11 09:15	11/15/11 01:40	1
Indeno[1,2,3-cd]pyrene	ND	10	0.65	ug/L		11/10/11 09:15	11/15/11 01:40	1
Pyrene	ND	10	0.37	ug/L		11/10/11 09:15	11/15/11 01:40	1
3 & 4 Methylphenol	ND	10	0.80	ug/L		11/10/11 09:15	11/15/11 01:40	1

MB MB

MB MB

Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84	36 - 120	11/10/11 09:15	11/15/11 01:40	1
2-Fluorophenol	86	30 - 120	11/10/11 09:15	11/15/11 01:40	1
2,4,6-Tribromophenol	94	50 - 120	11/10/11 09:15	11/15/11 01:40	1
Nitrobenzene-d5	98	45 - 120	11/10/11 09:15	11/15/11 01:40	1
Phenol-d5	91	36 - 120	11/10/11 09:15	11/15/11 01:40	1
Terphenyl-d14	107	52 - 120	11/10/11 09:15	11/15/11 01:40	1

Lab Sample ID: LCS 280-95599/2-A

**Matrix: Water** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Analysis Batch: 96362							Prep Batch: 95599
	Spike		LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Acenaphthene	80.0	64.1		ug/L		80	47 _ 120
Benzidine	200	149	J	ug/L		74	10 - 218
1,2,4-Trichlorobenzene	80.0	61.4		ug/L		77	44 - 120
Hexachlorobenzene	80.0	66.0		ug/L		82	53 - 120
Bis(2-chloroethyl)ether	80.0	57.2		ug/L		71	35 - 120
2-Chloronaphthalene	80.0	62.2		ug/L		78	60 - 118
2-Chlorophenol	80.0	61.2		ug/L		76	34 - 120
2-Methylphenol	80.0	54.2		ug/L		68	38 - 120
2,4,6-Trichlorophenol	80.0	72.0		ug/L		90	51 - 120
3,3'-Dichlorobenzidine	80.0	54.7		ug/L		68	18 - 120
Hexachloroethane	80.0	51.0		ug/L		64	40 - 113
2,4-Dichlorophenol	80.0	68.6		ug/L		86	46 - 120
2,4-Dimethylphenol	80.0	50.1		ug/L		63	44 - 119
2,4-Dinitrotoluene	80.0	69.7		ug/L		87	57 <sub>-</sub> 120
2,6-Dinitrotoluene	80.0	67.7		ug/L		85	56 - 120
Fluoranthene	80.0	69.0		ug/L		86	58 - 120
4-Bromophenyl phenyl ether	80.0	65.4		ug/L		82	53 _ 120
4-Chlorophenyl phenyl ether	80.0	67.9		ug/L		85	51 - 120
2,2'-Oxybis(1-chloropropane)	80.0	61.6		ug/L		77	37 _ 120
Bis(2-chloroethoxy)methane	80.0	63.4		ug/L		79	50 _ 120
Hexachlorobutadiene	80.0	60.5		ug/L		76	27 - 116
Hexachlorocyclopentadiene	80.0	20.2	J	ug/L		25	10 - 120
Isophorone	80.0	69.7		ug/L		87	50 - 120
Naphthalene	80.0	60.3		ug/L		75	37 - 120
Nitrobenzene	80.0	67.6		ug/L		85	46 - 120
2-Nitrophenol	80.0	68.0		ug/L		85	47 - 120
2,4-Dinitrophenol	80.0	68.7		ug/L		86	20 - 121
4-Nitrophenol	80.0	79.5		ug/L		99	53 - 120
4,6-Dinitro-2-methylphenol	80.0	70.0		ug/L		88	40 - 120

Client: Pinyon Env Eng Resources, Inc.

Lab Sample ID: LCS 280-95599/2-A

Project/Site: US 6 and BNSF

Analysis Batch: 96362

**Matrix: Water** 

### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

Prep Batch: 95599

	Spike	LCS	LCS				%Rec.
Analyte	Added Result C	Qualifier	lifier Unit		%Rec	Limits	
N-Nitrosodimethylamine	80.0	64.3		ug/L		80	37 - 120
N-Nitrosodi-n-propylamine	80.0	69.4		ug/L		87	50 _ 120
N-Nitrosodiphenylamine	68.3	51.5		ug/L		75	46 - 203
Pentachlorophenol	80.0	63.4		ug/L		79	46 - 120
Phenol	80.0	65.0		ug/L		81	37 _ 112
Bis(2-ethylhexyl) phthalate	80.0	65.8		ug/L		82	56 - 120
Butyl benzyl phthalate	80.0	68.4		ug/L		86	53 - 120
Di-n-butyl phthalate	80.0	70.0		ug/L		87	57 _ 118
Di-n-octyl phthalate	80.0	67.2		ug/L		84	56 - 120
Diethyl phthalate	80.0	70.2		ug/L		88	59 _ 114
Dimethyl phthalate	80.0	69.0		ug/L		86	58 - 112
Benzo[a]anthracene	80.0	65.4		ug/L		82	54 - 120
Benzo[a]pyrene	80.0	54.3		ug/L		68	39 - 120
Benzo[b]fluoranthene	80.0	58.7		ug/L		73	51 - 120
Benzo[k]fluoranthene	80.0	63.1		ug/L		79	49 - 120
Anthracene	80.0	64.9		ug/L		81	52 - 120
Acenaphthylene	80.0	65.4		ug/L		82	33 - 120
Chrysene	80.0	65.3		ug/L		82	51 - 120
Benzo[g,h,i]perylene	80.0	65.3		ug/L		82	48 - 120
Fluorene	80.0	65.5		ug/L		82	59 - 120
Phenanthrene	80.0	66.7		ug/L		83	54 - 120
Dibenz(a,h)anthracene	80.0	64.3		ug/L		80	45 _ 120
Indeno[1,2,3-cd]pyrene	80.0	66.2		ug/L		83	50 - 120
Pyrene	80.0	64.9		ug/L		81	55 <sub>-</sub> 115

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	79		36 - 120
2-Fluorophenol	75		30 - 120
2,4,6-Tribromophenol	92		50 - 120
Nitrobenzene-d5	86		45 - 120
Phenol-d5	81		36 - 120
Terphenyl-d14	86		52 - 120

Lab Sample ID: LCSD 280-95599/3-A

**Matrix: Water** 

**Analysis Batch: 96362** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 95599

						i icp	Daton.	00000
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
80.0	66.7		ug/L		83	47 - 120	4	30
200	153		ug/L		77	10 - 218	3	50
80.0	60.6		ug/L		76	44 - 120	1	35
80.0	67.7		ug/L		85	53 - 120	3	30
80.0	58.3		ug/L		73	35 - 120	2	30
80.0	64.9		ug/L		81	60 - 118	4	30
80.0	64.5		ug/L		81	34 - 120	5	30
80.0	58.6		ug/L		73	38 - 120	8	35
80.0	71.7		ug/L		90	51 - 120	1	30
80.0	58.1		ug/L		73	18 - 120	6	50
80.0	51.4		ug/L		64	40 - 113	1	52
	80.0 200 80.0 80.0 80.0 80.0 80.0 80.0 8	Added         Result           80.0         66.7           200         153           80.0         60.6           80.0         67.7           80.0         58.3           80.0         64.9           80.0         64.5           80.0         58.6           80.0         71.7           80.0         58.1	Added         Result         Qualifier           80.0         66.7         06.7           200         153         06.6           80.0         60.6         06.7           80.0         58.3         06.6           80.0         64.9         06.6           80.0         64.5         06.6           80.0         58.6         06.0           80.0         71.7         06.0           80.0         58.1         06.0	Added         Result         Qualifier         Unit           80.0         66.7         ug/L           200         153         ug/L           80.0         60.6         ug/L           80.0         67.7         ug/L           80.0         58.3         ug/L           80.0         64.9         ug/L           80.0         64.5         ug/L           80.0         58.6         ug/L           80.0         71.7         ug/L           80.0         58.1         ug/L	Added         Result         Qualifier         Unit         D           80.0         66.7         ug/L         ug/L           200         153         ug/L         ug/L           80.0         60.6         ug/L         ug/L           80.0         67.7         ug/L         ug/L           80.0         58.3         ug/L         ug/L           80.0         64.9         ug/L         ug/L           80.0         58.6         ug/L           80.0         71.7         ug/L           80.0         58.1         ug/L	Added         Result         Qualifier         Unit         D         %Rec           80.0         66.7         ug/L         83           200         153         ug/L         77           80.0         60.6         ug/L         76           80.0         67.7         ug/L         85           80.0         58.3         ug/L         73           80.0         64.9         ug/L         81           80.0         64.5         ug/L         81           80.0         58.6         ug/L         73           80.0         71.7         ug/L         90           80.0         58.1         ug/L         73	Spike         LCSD         LCSD         WRec.         Limits           80.0         66.7         ug/L         83         47 - 120           200         153         ug/L         77         10 - 218           80.0         60.6         ug/L         76         44 - 120           80.0         67.7         ug/L         85         53 - 120           80.0         58.3         ug/L         73         35 - 120           80.0         64.9         ug/L         81         60 - 118           80.0         64.5         ug/L         81         34 - 120           80.0         58.6         ug/L         73         38 - 120           80.0         71.7         ug/L         90         51 - 120           80.0         58.1         ug/L         73         18 - 120	Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           80.0         66.7         ug/L         83         47 - 120         4           200         153         ug/L         77         10 - 218         3           80.0         60.6         ug/L         76         44 - 120         1           80.0         67.7         ug/L         85         53 - 120         3           80.0         58.3         ug/L         73         35 - 120         2           80.0         64.9         ug/L         81         60 - 118         4           80.0         64.5         ug/L         81         34 - 120         5           80.0         58.6         ug/L         73         38 - 120         8           80.0         71.7         ug/L         90         51 - 120         1           80.0         58.1         ug/L         73         18 - 120         6

TestAmerica Denver

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-95599/3-A **Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Total/NA** 

Analysis Batch: 96362						Batch:	95599
•	Spike	LCSD LCSD			%Rec.		RPD
Analyte	Added	Result Quali	fier Unit	D %Rec	Limits	RPD	Limit
2,4-Dichlorophenol	80.0	67.9	ug/L	85	46 - 120	1	30
2,4-Dimethylphenol	80.0	51.8	ug/L	65	44 - 119	3	35
2,4-Dinitrotoluene	80.0	69.6	ug/L	87	57 - 120	0	35
2,6-Dinitrotoluene	80.0	69.9	ug/L	87	56 - 120	3	30
Fluoranthene	80.0	71.0	ug/L	89	58 - 120	3	30
4-Bromophenyl phenyl ether	80.0	65.5	ug/L	82	53 - 120	0	34
4-Chlorophenyl phenyl ether	80.0	69.5	ug/L	87	51 - 120	2	30
2,2'-Oxybis(1-chloropropane)	80.0	64.3	ug/L	80	37 - 120	4	30
Bis(2-chloroethoxy)methane	80.0	65.3	ug/L	82	50 - 120	3	30
Hexachlorobutadiene	80.0	60.1	ug/L	75	27 _ 116	1	41
Hexachlorocyclopentadiene	80.0	21.4 J	ug/L	27	10 - 120	6	82
Isophorone	80.0	69.6	ug/L	87	50 - 120	0	30
Naphthalene	80.0	60.9	ug/L	76	37 - 120	1	30
Nitrobenzene	80.0	71.2	ug/L	89	46 - 120	5	30
2-Nitrophenol	80.0	65.9	ug/L	82	47 - 120	3	30
2,4-Dinitrophenol	80.0	68.5	ug/L	86	20 - 121	0	61
4-Nitrophenol	80.0	80.7	ug/L	101	53 _ 120	1	42
4,6-Dinitro-2-methylphenol	80.0	71.5	ug/L	89	40 - 120	2	55
N-Nitrosodimethylamine	80.0	68.1	ug/L	85	37 - 120	6	30
N-Nitrosodi-n-propylamine	80.0	74.0	ug/L	92	50 - 120	6	30
N-Nitrosodiphenylamine	68.3	52.6	ug/L	77	46 - 203	2	50
Pentachlorophenol	80.0	65.5	ug/L	82	46 - 120	3	30
Phenol	80.0	67.6	ug/L	85	37 - 112	4	30
Bis(2-ethylhexyl) phthalate	80.0	67.6	ug/L	84	56 - 120	3	30
Butyl benzyl phthalate	80.0	72.0	ug/L	90	53 - 120	5	30
Di-n-butyl phthalate	80.0	71.1	ug/L	89	57 - 118	2	30
Di-n-octyl phthalate	80.0	70.0	ug/L	87	56 - 120	4	30
Diethyl phthalate	80.0	71.8	ug/L	90	59 - 114	2	30
Dimethyl phthalate	80.0	71.5	ug/L	89	58 - 112	4	30
Benzo[a]anthracene	80.0	68.6	ug/L	86	54 - 120	5	30
Benzo[a]pyrene	80.0	57.4	ug/L	72	39 - 120	6	73
Benzo[b]fluoranthene	80.0	63.5	ug/L	79	51 - 120	8	90
Benzo[k]fluoranthene	80.0	65.8	ug/L	82	49 - 120	4	50
Anthracene	80.0	67.1	ug/L	84	52 <sub>-</sub> 120	3	30
Acenaphthylene	80.0	68.2	ug/L	85	33 - 120	4	30
Chrysene	80.0	66.4	ug/L	83	51 - 120	2	30
Benzo[g,h,i]perylene	80.0	69.8	ug/L ug/L	87	48 - 120	7	64
Fluorene	80.0	69.6	ug/L ug/L	87	59 <sub>-</sub> 120	6	30
Phenanthrene	80.0	68.6	ug/L ug/L	86	54 <sub>-</sub> 120	3	30
Dibenz(a,h)anthracene	80.0	68.4	ug/L ug/L	85	45 <sub>-</sub> 120	6	78
						2	
Indeno[1,2,3-cd]pyrene Pyrene	80.0 80.0	67.7 66.4	ug/L ug/L	85 83	50 - 120 55 - 115	2	73 30

LCSD	LCSD
LUJD	LUJD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	83		36 - 120
2-Fluorophenol	82		30 - 120
2,4,6-Tribromophenol	96		50 - 120
Nitrobenzene-d5	89		45 - 120
Phenol-d5	84		36 - 120

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-95599/3-A

**Matrix: Water** 

**Analysis Batch: 96362** 

LCSD LCSD

Surrogate Limits %Recovery Qualifier Terphenyl-d14 52 - 120 89

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

**Prep Type: Total Recoverable** 

Prep Batch: 96029

Client Sample ID: B-6

Client Sample ID: B-6

Prep Batch: 96029

Prep Batch: 95599

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-96029/1-A

**Matrix: Water** 

Analyte

Analysis Batch: 96491

Prep Batch: 96029 MB MB Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

Aluminum ND 100 11/14/11 14:00 11/16/11 04:27 18 ug/L ND 100 11/16/11 04:27 Iron 22 ug/L 11/14/11 14:00

Lab Sample ID: LCS 280-96029/2-A

**Matrix: Water** 

**Analysis Batch: 96491** 

		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	%F	Rec	Limits	
Aluminum		2000	2100	۸	ug/L		105	87 _ 111	
Iron		1000	982		ug/L		98	89 - 115	

Lab Sample ID: 280-22635-1 MS

**Matrix: Water** 

Analysis Batch: 96491							Pr			ep Batch: 96029		
	Sample	Sample	Spike	MS	MS				%Rec.			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Aluminum	130000		2000	201000	4	ug/L		3359	87 _ 111			
Iron	200000		1000	216000	4	ug/L		1581	89 - 115			

Lab Sample ID: 280-22635-1 MSD

**Matrix: Water** 

**Prep Type: Total Recoverable Analysis Batch: 96491** 

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	130000		2000	202000	4	ug/L		3398	87 _ 111	0	20
Iron	200000		1000	216000	4	ug/L		1647	89 - 115	0	20

Lab Sample ID: MB 280-95389/1-B

**Matrix: Water** 

**Analysis Batch: 96488** 

Client Sample ID: Method Blank **Prep Type: Potentially Dissolved** Prep Batch: 95937 MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	٨	100	18	ug/L		11/14/11 14:00	11/16/11 02:56	1
Iron	ND		100	22	ug/L		11/14/11 14:00	11/16/11 02:56	1

Lab Sample ID: LCS 280-95389/2-B

Analysis Batch: 96488

**Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Potentially Dissolved** Prep Batch: 95937

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	2000	2040	۸	ug/L		102	87 - 111	

10

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-95389/2-B Client Sample ID: Lab Control Sample **Matrix: Water Prep Type: Potentially Dissolved** 

**Analysis Batch: 96488** 

Prep Batch: 95937 LCS LCS Spike Added Result Qualifier Unit D Limits Analyte %Rec Iron 1000 951 95 89 - 115 ug/L

Lab Sample ID: 280-22635-1 MS Client Sample ID: B-6

**Matrix: Water Prep Type: Potentially Dissolved Analysis Batch: 96488** Prep Batch: 95937

Sample Sample Spike MS MS Result Qualifier Added Result Qualifier Analyte Unit D %Rec Limits

2000 5640 Aluminum 3700 ug/L 99 87 \_ 111 7400 1000 Iron 8310 4 ug/L 87 89 - 115

Lab Sample ID: 280-22635-1 MSD Client Sample ID: B-6 **Prep Type: Potentially Dissolved Matrix: Water** 

**Analysis Batch: 96488** Prep Batch: 95937

MSD MSD Sample Sample Spike %Rec. Analyte Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Result Aluminum 3700 2000 105 20 5750 ug/L 87 111 2 Iron 7400 1000 8410 4 ug/L 97 89 - 115 20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-95999/1-A Client Sample ID: Method Blank

**Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 96344 Prep Batch: 95999

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.16	ug/L		11/14/11 14:00	11/15/11 00:24	1
Arsenic	ND		5.0	0.50	ug/L		11/14/11 14:00	11/15/11 00:24	1
Barium	ND		1.0	0.38	ug/L		11/14/11 14:00	11/15/11 00:24	1
Beryllium	ND		1.0	0.15	ug/L		11/14/11 14:00	11/15/11 00:24	1
Cadmium	ND		1.0	0.040	ug/L		11/14/11 14:00	11/15/11 00:24	1
Chromium	ND		3.0	0.88	ug/L		11/14/11 14:00	11/15/11 00:24	1
Copper	0.435	J	2.0	0.20	ug/L		11/14/11 14:00	11/15/11 00:24	1
Lead	ND		1.0	0.10	ug/L		11/14/11 14:00	11/15/11 00:24	1
Manganese	ND		2.0	0.51	ug/L		11/14/11 14:00	11/15/11 00:24	1
Molybdenum	ND		2.0	0.040	ug/L		11/14/11 14:00	11/15/11 00:24	1
Nickel	ND		2.0	0.28	ug/L		11/14/11 14:00	11/15/11 00:24	1
Selenium	ND		5.0	1.0	ug/L		11/14/11 14:00	11/15/11 00:24	1
Silver	ND		1.0	0.020	ug/L		11/14/11 14:00	11/15/11 00:24	1
Thallium	ND		1.0	0.066	ug/L		11/14/11 14:00	11/15/11 00:24	1
Uranium	ND		1.0	0.030	ug/L		11/14/11 14:00	11/15/11 00:24	1
Zinc	ND		10	2.0	ug/L		11/14/11 14:00	11/15/11 00:24	1

Lab Sample ID: LCS 280-95999/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Water Prep Type: Total Recoverable Analysis Batch: 96344** Prep Batch: 95999

	<b>Зріке</b>	LCS	LUS			%Rec.		
Analyte	Added	Result	Qualifier l	Unit D	%Rec	Limits		
Antimony	40.0	41.6		ug/L	104	85 - 115		
Arsenic	40.0	42.5	ι	ug/L	106	89 - 111		
Barium	40.0	42.3	ι	ug/L	106	89 - 115		

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-95999/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Prep Batch: 95999 Analysis Batch: 96344

	Spike	LCS	LCS		%Rec.	
Analyte	Added	Result	Qualifier Unit	D %Rec	Limits	
Beryllium	40.0	42.8	ug/L		85 - 115	
Cadmium	40.0	42.3	ug/L	106	89 - 111	
Chromium	40.0	40.3	ug/L	101	86 - 115	
Copper	40.0	40.5	ug/L	101	90 - 115	
Lead	40.0	42.5	ug/L	106	88 _ 115	
Manganese	40.0	40.6	ug/L	101	87 - 115	
Molybdenum	40.0	41.9	ug/L	105	89 - 112	
Nickel	40.0	41.5	ug/L	104	86 - 115	
Selenium	40.0	43.8	ug/L	110	85 - 114	
Silver	40.0	41.6	ug/L	104	90 - 114	
Thallium	40.0	43.9	ug/L	110	86 - 115	
Uranium	40.0	44.3	ug/L	111	85 _ 115	
Zinc	40.0	43.0	ug/L	108	88 _ 115	

Lab Sample ID: 280-22635-1 MS

**Matrix: Water** 

Client Sample ID: B-6 **Prep Type: Total Recoverable** 

Analysis Batch: 96344									Prep Batch: 95999
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	0.22	J	40.0	6.03	F	ug/L		15	85 - 115
Arsenic	58		40.0	90.1		ug/L		79	79 - 120
Barium	2100		40.0	2130	4	ug/L		56	89 - 115
Beryllium	9.5		40.0	50.4		ug/L		102	85 <sub>-</sub> 115
Cadmium	1.6		40.0	41.8		ug/L		101	89 - 111
Chromium	93		40.0	128		ug/L		86	86 _ 115
Copper	120	В	40.0	157	F	ug/L		85	90 - 115
Lead	100		40.0	139		ug/L		95	88 _ 115
Manganese	1300		40.0	1330	4	ug/L		38	87 _ 115
Molybdenum	6.2		40.0	26.0	F	ug/L		49	89 - 112
Nickel	62		40.0	96.8		ug/L		88	86 - 115
Selenium	31		40.0	57.8	F	ug/L		67	85 - 114
Silver	0.45	J	40.0	37.9		ug/L		94	20 - 120
Thallium	1.4		40.0	39.2		ug/L		95	86 - 115
Uranium	48		40.0	88.9		ug/L		101	85 - 115
Zinc	420		40.0	467	4	ug/L		109	88 - 115

Lab Sample ID: 280-22635-1 MSD

**Matrix: Water** 

Analysis Batch: 96344

Client Sample ID: B-6
Prep Type: Total Recoverable
Prep Batch: 95999

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	0.22	J	40.0	5.68	F	ug/L		14	85 - 115	6	20
Arsenic	58		40.0	92.1		ug/L		84	79 - 120	2	20
Barium	2100		40.0	2150	4	ug/L		97	89 - 115	1	20
Beryllium	9.5		40.0	50.2		ug/L		102	85 <sub>-</sub> 115	0	20
Cadmium	1.6		40.0	42.2		ug/L		102	89 - 111	1	20
Chromium	93		40.0	131		ug/L		93	86 - 115	2	20
Copper	120	В	40.0	158	F	ug/L		88	90 - 115	1	20
Lead	100		40.0	137		ug/L		91	88 - 115	1	20
Manganese	1300		40.0	1350	4	ug/L		75	87 - 115	1	20

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

### Method: 200.8 - Metals (ICP/MS) (Continued)

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Lab Sample ID: 280-22635-1 MSD Client Sample ID: B-6 **Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 96344 Prep Batch: 95999 MSD MSD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Unit 40.0 26.7 F Molybdenum 6.2 89 - 112 ug/L 51 3 20 Nickel 62 40.0 98.5 ug/L 92 86 - 115 2 20 Selenium 31 40.0 58.9 F 69 85 - 114 20 ug/L Silver 0.45 40.0 38.3 ug/L 95 20 - 120 20 Thallium 40.0 38.7 ug/L 93 86 - 115 20 1.4 Uranium 48 40.0 87.9 ug/L 99 85 - 115 20

479 4

ug/L

40.0

Lab Sample ID: 280-22687-D-1-B MS

**Matrix: Water** 

Zinc

Analysis Batch: 96344

Client Sample ID: Matrix Spike **Prep Type: Total Recoverable** 

88 - 115

140

Prep Batch: 95999

20

Analysis Batch. 30344	Sample	Sample	Spike	MS	MS				%Rec.	. 5555
Analyte	•	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	
Antimony	1.9	J	40.0	40.2		ug/L		96	85 - 115	
Arsenic	6.9		40.0	50.2		ug/L		108	79 <sub>-</sub> 120	
Barium	58		40.0	100		ug/L		105	89 _ 115	
Beryllium	0.15	J	40.0	43.2		ug/L		108	85 <sub>-</sub> 115	
Cadmium	0.63	J	40.0	42.5		ug/L		105	89 _ 111	
Chromium	5.3		40.0	45.4		ug/L		100	86 - 115	
Copper	20	В	40.0	60.1		ug/L		100	90 _ 115	
Lead	30		40.0	71.6		ug/L		104	88 _ 115	
Manganese	280		40.0	332	4	ug/L		120	87 - 115	
Molybdenum	28		40.0	71.3		ug/L		108	89 _ 112	
Nickel	6.1		40.0	47.1		ug/L		102	86 - 115	
Selenium	ND		40.0	43.8		ug/L		110	85 _ 114	
Silver	0.12	J	40.0	40.1		ug/L		100	20 - 120	
Thallium	0.076	J	40.0	42.4		ug/L		106	86 _ 115	
Uranium	0.51	J	40.0	44.1		ug/L		109	85 - 115	
Zinc	130		40.0	179		ug/L		113	88 - 115	

Lab Sample ID: 280-22687-D-1-C MSD

**Matrix: Water** 

**Analysis Batch: 96344** 

Client Sample ID: Matrix Spike Duplicate **Prep Type: Total Recoverable** Prep Batch: 95999

Allalysis Datoll. 30044									пор	Dateii.	30333
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	1.9	J	40.0	41.1		ug/L		98	85 - 115	2	20
Arsenic	6.9		40.0	49.2		ug/L		106	79 - 120	2	20
Barium	58		40.0	102		ug/L		110	89 - 115	2	20
Beryllium	0.15	J	40.0	43.5		ug/L		108	85 - 115	1	20
Cadmium	0.63	J	40.0	42.7		ug/L		105	89 - 111	0	20
Chromium	5.3		40.0	45.2		ug/L		100	86 - 115	0	20
Copper	20	В	40.0	59.9		ug/L		99	90 - 115	0	20
Lead	30		40.0	73.2		ug/L		108	88 - 115	2	20
Manganese	280		40.0	332	4	ug/L		120	87 - 115	0	20
Molybdenum	28		40.0	71.4		ug/L		109	89 - 112	0	20
Nickel	6.1		40.0	46.9		ug/L		102	86 - 115	0	20
Selenium	ND		40.0	44.0		ug/L		110	85 - 114	0	20
Silver	0.12	J	40.0	40.1		ug/L		100	20 - 120	0	20
Thallium	0.076	J	40.0	43.3		ug/L		108	86 - 115	2	20
Uranium	0.51	J	40.0	44.9		ug/L		111	85 - 115	2	20
• Control of the cont											

TestAmerica Job ID: 280-22635-1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-22687-D-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water Prep Type: Total Recoverable Analysis Batch: 96344** Prep Batch: 95999 MSD MSD Sample Sample Spike Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D Zinc 40.0 130 178 110 88 - 115

ug/L

Lab Sample ID: MB 280-95562/1-B Client Sample ID: Method Blank **Matrix: Water Prep Type: Potentially Dissolved** 

**Analysis Batch: 96473** 

Prep Batch: 95930 мв мв MDL Unit Prepared Analyte Result Qualifier RLDil Fac Analyzed Antimony ND 2.0 0.16 ug/L 11/14/11 06:30 11/15/11 16:50 Arsenic ND 5.0 0.50 ug/L 11/14/11 06:30 11/15/11 16:50 Barium ND 1.0 0.38 ug/L 11/14/11 06:30 11/15/11 16:50 Beryllium ND 1.0 0.15 ug/L 11/14/11 06:30 11/15/11 16:50 Cadmium 0.0670 J 1.0 0.040 ug/L 11/14/11 06:30 11/15/11 16:50 Chromium ND 3.0 0.88 ug/L 11/14/11 06:30 11/15/11 16:50 ND 2.0 0.20 ug/L 11/15/11 16:50 Copper 11/14/11 06:30 ND Lead 1.0 0.10 ug/L 11/14/11 06:30 11/15/11 16:50 Manganese ND 2.0 0.51 ug/L 11/14/11 06:30 11/15/11 16:50 Nickel ND 2.0 0.28 ug/L 11/14/11 06:30 11/15/11 16:50 Selenium ND 11/14/11 06:30 11/15/11 16:50 5.0 1.0 ug/L Silver ND 1.0 0.020 ug/L 11/14/11 06:30 11/15/11 16:50 Thallium ND 1.0 0.066 ug/L 11/14/11 06:30 11/15/11 16:50 Uranium ND 1.0 0.030 ug/L 11/14/11 06:30 11/15/11 16:50 Zinc ND 10 11/14/11 06:30 11/15/11 16:50 2.0 ug/L

Lab Sample ID: LCS 280-95562/2-B Client Sample ID: Lab Control Sample **Prep Type: Potentially Dissolved Matrix: Water** Prep Batch: 95930

Analysis Batch: 96473

Analysis Batch: 96473								tcn: 95930
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	40.0	44.0		ug/L		110	85 - 115	
Arsenic	40.0	43.3		ug/L		108	89 - 111	
Barium	40.0	42.0		ug/L		105	89 - 115	
Beryllium	40.0	39.5		ug/L		99	85 - 115	
Cadmium	40.0	44.3		ug/L		111	89 - 111	
Chromium	40.0	41.8		ug/L		104	86 - 115	
Copper	40.0	41.8		ug/L		105	90 _ 115	
Lead	40.0	41.5		ug/L		104	88 - 115	
Manganese	40.0	41.1		ug/L		103	87 - 115	
Nickel	40.0	42.6		ug/L		106	86 _ 115	
Selenium	40.0	42.7		ug/L		107	85 _ 114	
Silver	40.0	42.0		ug/L		105	90 - 114	
Thallium	40.0	41.5		ug/L		104	86 _ 115	
Uranium	40.0	41.0		ug/L		102	85 - 115	
Zinc	40.0	43.5		ug/L		109	88 _ 115	
Zinc	40.0	43.5		ug/L		109	88 - 115	

Lab Sample ID: 280-22698-A-1-D MS

**Matrix: Water** 

Analysis Batch: 96473									Prep	Batch: 95930
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	ND		40.0	42.7		ug/L		107	85 - 115	

TestAmerica Denver

Client Sample ID: Matrix Spike

**Prep Type: Potentially Dissolved** 

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TestAmerica Job ID: 280-22635-1

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-22698-A-1-D MS Client Sample ID: Matrix Spike **Matrix: Water Prep Type: Potentially Dissolved Analysis Batch: 96473** Prep Batch: 95930

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	0.50	J	40.0	40.1		ug/L		99	79 - 120	
Barium	51		40.0	92.9		ug/L		105	89 - 115	
Beryllium	ND		40.0	41.0		ug/L		103	85 - 115	
Cadmium	ND		40.0	41.7		ug/L		104	89 - 111	
Chromium	ND		40.0	41.0		ug/L		103	86 - 115	
Copper	1.3	J	40.0	42.2		ug/L		102	90 - 115	
Lead	ND		40.0	41.7		ug/L		104	88 - 115	
Manganese	0.92	J	40.0	43.5		ug/L		107	87 - 115	
Nickel	0.68	J	40.0	41.0		ug/L		101	86 - 115	
Selenium	47		40.0	92.3		ug/L		113	85 - 114	
Silver	ND		40.0	40.5		ug/L		101	20 - 120	
Thallium	ND		40.0	41.6		ug/L		104	86 - 115	
Uranium	180		40.0	231	4	ug/L		117	85 _ 115	
Zinc	9.8	J	40.0	49.6		ug/L		100	88 - 115	

Lab Sample ID: 280-22698-A-1-E MSD

**Matrix: Water** 

Analysis Batch: 96473

Client Sample ID: Matrix Spike Duplicate **Prep Type: Potentially Dissolved** 

Prep Batch: 95930

Alialysis Datcil. 30473									FIED	Daten.	90900
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	ND		40.0	37.8		ug/L		95	85 - 115	12	20
Arsenic	0.50	J	40.0	41.9		ug/L		104	79 - 120	5	20
Barium	51		40.0	94.6		ug/L		109	89 - 115	2	20
Beryllium	ND		40.0	41.6		ug/L		104	85 - 115	1	20
Cadmium	ND		40.0	41.0		ug/L		102	89 _ 111	2	20
Chromium	ND		40.0	42.4		ug/L		106	86 - 115	3	20
Copper	1.3	J	40.0	42.2		ug/L		102	90 - 115	0	20
Lead	ND		40.0	42.2		ug/L		105	88 - 115	1	20
Manganese	0.92	J	40.0	42.7		ug/L		105	87 - 115	2	20
Nickel	0.68	J	40.0	41.7		ug/L		103	86 - 115	2	20
Selenium	47		40.0	93.6	F	ug/L		116	85 - 114	1	20
Silver	ND		40.0	40.3		ug/L		101	20 - 120	1	20
Thallium	ND		40.0	41.1		ug/L		103	86 - 115	1	20
Uranium	180		40.0	232	4	ug/L		119	85 - 115	0	20
Zinc	9.8	J	40.0	52.7		ug/L		107	88 - 115	6	20

Lab Sample ID: MB 280-95839/1-D

**Matrix: Water** 

**Analysis Batch: 97852** 

Client Sample ID: Method Blank **Prep Type: Potentially Dissolved** Prep Batch: 97606

Client Sample ID: Lab Control Sample

	WID 1								
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.0	0.040	ug/L		11/28/11 08:30	11/28/11 20:27	1

Lab Sample ID: LCS 280-95839/2-D

Matrix: Water					P	rep Type	e: Potentially Dissolved			
Analysis Batch: 97852					Prep Batch: 9760					
	Spike	LCS	LCS				%Rec.			
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Molybdenum	40.0	40.7		ug/L	_	102	89 - 112			

Project/Site: US 6 and BNSF

Client Sample ID: Matrix Spike

**Client Sample ID: Method Blank Prep Type: Potentially Dissolved** 

Method: 200.8 - Metals	s (ICP/MS)	(Continued)
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Lab Sample ID: LCSD 280-95839/4-C		Client Sample ID: Lab Control Sample Dup									
Matrix: Water				Pr	ер Туре	e: Potentia	<b>Ily Diss</b>	olved			
Analysis Batch: 97852							Prep	Batch:	97606		
	Spike	LCSD	LCSD				%Rec.		RPD		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Molybdenum	40.0	40.5		ug/L		101	89 - 112	0	20		

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: 280-22621-A-1-B MS

Lab Sample ID: MB 280-95839/1-C

**Matrix: Water** 

Lab Sample ID: MB 280-95698/1-A Matrix: Water Analysis Batch: 96304							Client Sa	mple ID: Metho Prep Type: T Prep Batch	otal/NA
,	MB	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.027	ug/L		11/14/11 12:45	11/14/11 18:31	1
Lab Sample ID: LCS 280-95698/2-A						C	lient Sample I	D: Lab Control	Sample

Matrix: Water							Prep T	ype: Tota	al/NA
Analysis Batch: 96304							Prep	Batch: 9	<b>569</b> 8
	Spil	e LCS	LCS				%Rec.		
Analyte	Adde	d Result	Qualifier	Unit	D	%Rec	Limits		
Mercury	5.0	5.00		ug/L	_	100	90 - 110		

Matrix: Water									Prep Type	e: Total/NA
Analysis Batch: 96304									Prep Ba	atch: 9 <mark>569</mark> 8
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	0.031	J	5.00	4.93		ug/L		98	80 - 120	

Lab Sample ID: 280-22621-A-1-		Client Sample ID: Matrix Spike Duplic									
Matrix: Water									Prep Ty	pe: To	tal/NA
Analysis Batch: 96304									Prep	Batch:	95698
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.031	J	5.00	4.61		ug/L		92	80 - 120	7	10

Analysis Batch: 96985								Prep Batch	: <b>96683</b>
_	MB	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.027	ug/L		11/17/11 10:30	11/17/11 19:32	1
_ _									

Lab Sample ID: LCS 280-95839/2-C	Client	Client Sample ID: Lab Control Sample				
Matrix: Water	Prep Type: Potentially Dissolved					
Analysis Batch: 96985		Prep Batch: 96683				
	Spike	LCS L	.cs			%Rec.
Analyte	Added	Result Q	Qualifier Un	it D	%Rec	Limits
Mercury	5.00	5.00	ug	/L	100	90 - 110

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 280-95839/5-B					Client Sample ID: Lab Control Sample Dup						
Matrix: Water						Pr	ер Туре	e: Potentia	Ily Diss	olved	
	Analysis Batch: 96985	Prep Batch: 9668						96683			
		Spike	LCSD	LCSD				%Rec.		RPD	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
	Mercury	5.00	5.07		ug/L		101	90 - 110		10	

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 280-95680/5	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA
Analysis Ratch: 95680	

Analyte	Result	Qualifier	RL	MDL	Unit	D		Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L		_		11/10/11 11:04	1

Lab Sample ID: LCS 280-95680/3	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
Analysis Detaly 05000	

**Analysis Batch: 95680** 

	Opike	L03	LUU				/ortec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium, hexavalent	0.100	0.108		mg/L		108	85 - 115	 

Lab Sample ID: LCSD 280-95680/4	Client Sample ID: Lab Control Sample Dup
Matrix: Water	Prep Type: Total/NA
A B	

**Analysis Batch: 95680** 

•	Spike	LCSD	LCSD			%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	RPD	Limit
Chromium, hexavalent	0.100	0.109		mg/L	109	85 - 115	1	20

L	_ab Sample ID: 280-22635-1 MS	Client Sample ID: B-6
N	Matrix: Water	Prep Type: Total/NA

Matrix: Water Analysis Batch: 95680

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium hexavalent	0.0061	J	0.100	0.109		ma/l	_	103	75 - 125	

Lab Sample ID: 280-22635-1 MSD	Client Sample ID: B-6
Matrix: Water	Prep Type: Total/NA
Available Databa 05000	

Analysis Batch: 95680

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium, hexavalent	0.0061	J	0.100	0.109		mg/L		103	75 - 125	1	20

Lab Sample ID: 280-22635-1 DU	Client Sample ID: B-6
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 95680

	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Chromium, hexavalent	0.0061	J	0.00608	J	mg/L		 0	20	

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

%Rec.

Limits

%Rec.

Limits

86 - 110

**Client Sample ID: Duplicate** 

Client Sample ID: Lab Control Sample Dup

86 - 110

Project/Site: US 6 and BNSF

Method: 7196A - Chromium, Trivalent (Colorimetric)

Lab Sample ID: MB 280-96878/1

**Matrix: Water** 

Cr (III)

**Analysis Batch: 96878** 

мв мв

Result Qualifier Analyte

ND

RL 0.020

MDL Unit 0.020 mg/L D

Prepared

Analyzed Dil Fac 11/18/11 07:49

Prep Type: Total/NA

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-96342/1

**Matrix: Water** 

**Analysis Batch: 96342** 

мв мв

Analyte Total Dissolved Solids ND

Result Qualifier

RL 10

Spike

Added

Spike

Added

500

500

MDL Unit 4.7 mg/L

LCS LCS

LCSD LCSD

Result

484

Qualifier

Qualifier

Result

486

D

Unit

mg/L

Unit

mg/L

Prepared

%Rec

%Rec

Analyzed 11/15/11 09:43

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

RPD

10

Dil Fac

Lab Sample ID: LCS 280-96342/2

**Matrix: Water** 

Analysis Batch: 96342

Analyte

Total Dissolved Solids

Lab Sample ID: LCSD 280-96342/3 **Matrix: Water** 

Total Dissolved Solids

**Analysis Batch: 96342** 

Lab Sample ID: 280-22623-A-1 DU **Matrix: Water** 

**Analysis Batch: 96342** 

Analyte Total Dissolved Solids 450

Result Qualifier

Method: SM 2540D - Solids, Total Suspended (TSS)

Sample Sample

MB MB Result Qualifier

ND

RL

4.0

Result Qualifier 450

DU DU

Unit mg/L

D

RPD Limit 0.9

Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Type: Total/NA

Prepared

Analyzed Dil Fac

11/14/11 13:37

Lab Sample ID: LCS 280-96214/2

Lab Sample ID: MB 280-96214/1

**Matrix: Water** 

Total Suspended Solids

**Matrix: Water** 

Analysis Batch: 96214

**Analysis Batch: 96214** 

Total Suspended Solids

Spike Added 100

LCS LCS Result Qualifier 102

MDL Unit

1.1 mg/L

> Unit mg/L

%Rec 102

Limits 86 - 114

**Client Sample ID: Lab Control Sample** 

%Rec.

RPD

Limit

RPD

10

20

## **QC Sample Results**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

## Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCSD 280-96214/3 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA Analysis Batch: 96214

-	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Total Suspended Solids	 100	92.0		mg/L	_	92	86 - 114	10	20

Lab Sample ID: 280-22677-A-8 DU **Client Sample ID: Duplicate Matrix: Water** Prep Type: Total/NA

Analysis Batch: 96214

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Total Suspended Solids	3.2	J	4.80		mg/L		 40	10

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Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

## **GC/MS VOA**

## Analysis Batch: 97497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total/NA	Water	624	
280-22635-1 MS	B-6	Total/NA	Water	624	
280-22635-1 MSD	B-6	Total/NA	Water	624	
LCS 280-97497/21	Lab Control Sample	Total/NA	Water	624	
MB 280-97497/22	Method Blank	Total/NA	Water	624	

#### GC/MS Semi VOA

## Prep Batch: 95599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Bato	ch
280-22635-1	B-6	Total/NA	Water	625	_
LCS 280-95599/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 280-95599/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 280-95599/1-A	Method Blank	Total/NA	Water	625	

## Analysis Batch: 96362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total/NA	Water	625	95599
LCS 280-95599/2-A	Lab Control Sample	Total/NA	Water	625	95599
LCSD 280-95599/3-A	Lab Control Sample Dup	Total/NA	Water	625	95599
MB 280-95599/1-A	Method Blank	Total/NA	Water	625	95599

#### **Metals**

## Prep Batch: 95698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22621-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	
280-22621-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
280-22635-1	B-6	Total/NA	Water	245.1	
LCS 280-95698/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 280-95698/1-A	Method Blank	Total/NA	Water	245.1	

## Prep Batch: 95930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	200.8	
280-22698-A-1-D MS	Matrix Spike	Potentially Dissolved	Water	200.8	
280-22698-A-1-E MSD	Matrix Spike Duplicate	Potentially Dissolved	Water	200.8	
LCS 280-95562/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	
MB 280-95562/1-B	Method Blank	Potentially Dissolved	Water	200.8	

#### Prep Batch: 95937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	200.7
280-22635-1 MS	B-6	Potentially Dissolved	Water	200.7
280-22635-1 MSD	B-6	Potentially Dissolved	Water	200.7
LCS 280-95389/2-B	Lab Control Sample	Potentially Dissolved	Water	200.7
MB 280-95389/1-B	Method Blank	Potentially Dissolved	Water	200.7

#### Prep Batch: 95999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total Recoverable	Water	200.8	
280-22635-1 MS	B-6	Total Recoverable	Water	200.8	

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

Metals (Continued)

## Prep Batch: 95999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1 MSD	B-6	Total Recoverable	Water	200.8	
280-22687-D-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
280-22687-D-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	
LCS 280-95999/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
MB 280-95999/1-A	Method Blank	Total Recoverable	Water	200.8	

## Prep Batch: 96029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total Recoverable	Water	200.7	
280-22635-1 MS	B-6	Total Recoverable	Water	200.7	
280-22635-1 MSD	B-6	Total Recoverable	Water	200.7	
LCS 280-96029/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 280-96029/1-A	Method Blank	Total Recoverable	Water	200.7	

#### Analysis Batch: 96304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22621-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	95698
280-22621-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	95698
280-22635-1	B-6	Total/NA	Water	245.1	95698
LCS 280-95698/2-A	Lab Control Sample	Total/NA	Water	245.1	95698
MB 280-95698/1-A	Method Blank	Total/NA	Water	245.1	95698

#### Analysis Batch: 96344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total Recoverable	Water	200.8	95999
280-22635-1 MS	B-6	Total Recoverable	Water	200.8	95999
280-22635-1 MSD	B-6	Total Recoverable	Water	200.8	95999
280-22687-D-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	95999
280-22687-D-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	95999
LCS 280-95999/2-A	Lab Control Sample	Total Recoverable	Water	200.8	95999
MB 280-95999/1-A	Method Blank	Total Recoverable	Water	200.8	95999

## Analysis Batch: 96473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	200.8	95930
280-22698-A-1-D MS	Matrix Spike	Potentially Dissolved	Water	200.8	95930
280-22698-A-1-E MSD	Matrix Spike Duplicate	Potentially Dissolved	Water	200.8	95930
LCS 280-95562/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	95930
MB 280-95562/1-B	Method Blank	Potentially Dissolved	Water	200.8	95930

## Analysis Batch: 96488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	200.7 Rev 4.4	95937
280-22635-1 MS	B-6	Potentially Dissolved	Water	200.7 Rev 4.4	95937
280-22635-1 MSD	B-6	Potentially Dissolved	Water	200.7 Rev 4.4	95937
LCS 280-95389/2-B	Lab Control Sample	Potentially Dissolved	Water	200.7 Rev 4.4	95937
MB 280-95389/1-B	Method Blank	Potentially Dissolved	Water	200.7 Rev 4.4	95937

#### Analysis Batch: 96491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total Recoverable	Water	200.7 Rev 4.4	96029
280-22635-1 MS	B-6	Total Recoverable	Water	200.7 Rev 4.4	96029

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

## **Metals (Continued)**

## **Analysis Batch: 96491 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1 MSD	B-6	Total Recoverable	Water	200.7 Rev 4.4	96029
LCS 280-96029/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	96029
MB 280-96029/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	96029

## Prep Batch: 96683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	245.1	
LCS 280-95839/2-C	Lab Control Sample	Potentially Dissolved	Water	245.1	
LCSD 280-95839/5-B	Lab Control Sample Dup	Potentially Dissolved	Water	245.1	
MB 280-95839/1-C	Method Blank	Potentially Dissolved	Water	245.1	

#### **Analysis Batch: 96985**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	245.1	96683
LCS 280-95839/2-C	Lab Control Sample	Potentially Dissolved	Water	245.1	96683
LCSD 280-95839/5-B	Lab Control Sample Dup	Potentially Dissolved	Water	245.1	96683
MB 280-95839/1-C	Method Blank	Potentially Dissolved	Water	245.1	96683

## Prep Batch: 97606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	200.8	
LCS 280-95839/2-D	Lab Control Sample	Potentially Dissolved	Water	200.8	
LCSD 280-95839/4-C	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	
MB 280-95839/1-D	Method Blank	Potentially Dissolved	Water	200.8	

## Analysis Batch: 97852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Potentially Dissolved	Water	200.8	97606
LCS 280-95839/2-D	Lab Control Sample	Potentially Dissolved	Water	200.8	97606
LCSD 280-95839/4-C	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	97606
MB 280-95839/1-D	Method Blank	Potentially Dissolved	Water	200.8	97606

## **General Chemistry**

#### Analysis Batch: 95680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total/NA	Water	7196A	<u> </u>
280-22635-1 DU	B-6	Total/NA	Water	7196A	
280-22635-1 MS	B-6	Total/NA	Water	7196A	
280-22635-1 MSD	B-6	Total/NA	Water	7196A	
LCS 280-95680/3	Lab Control Sample	Total/NA	Water	7196A	
LCSD 280-95680/4	Lab Control Sample Dup	Total/NA	Water	7196A	
MB 280-95680/5	Method Blank	Total/NA	Water	7196A	

#### Analysis Batch: 96214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total/NA	Water	SM 2540D	
280-22677-A-8 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 280-96214/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-96214/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 280-96214/1	Method Blank	Total/NA	Water	SM 2540D	

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Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

TestAmerica Job ID: 280-22635-1

## **General Chemistry (Continued)**

## Analysis Batch: 96342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22623-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
280-22635-1	B-6	Total/NA	Water	SM 2540C	
LCS 280-96342/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-96342/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
MB 280-96342/1	Method Blank	Total/NA	Water	SM 2540C	

## Analysis Batch: 96878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-22635-1	B-6	Total/NA	Water	7196A	
MB 280-96878/1	Method Blank	Total/NA	Water	7196A	

## **Lab Chronicle**

Client: Pinyon Env Eng Resources, Inc.

Project/Site: US 6 and BNSF

Client Sample ID: B-6

Date Collected: 11/09/11 20:05

Date Received: 11/10/11 08:00

TestAmerica Job ID: 280-22635-1

Lab Sample ID: 280-22635-1

Matrix: Water

	Batch	Batch		Dil	Init	ial	Fin	al	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amo	unt	Amo	unt	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	20	mL	20	mL	97497	11/22/11 20:22	TW	TAL DEN
Total/NA	Prep	625			1053.3	mL	1000	uL	95599	11/10/11 11:30	JCV	TAL DEN
Total/NA	Analysis	625		1					96362	11/15/11 08:20	MGH	TAL DEN
Total/NA	Prep	245.1			30	mL	30	mL	95698	11/14/11 12:45	BLR	TAL DEN
Total/NA	Analysis	245.1		1					96304	11/14/11 18:58	BLR	TAL DEN
Total Recoverable	Prep	200.8			50	mL	50	mL	95999	11/14/11 14:00	JM	TAL DEN
Total Recoverable	Analysis	200.8		1					96344	11/15/11 00:30	TEL	TAL DEN
Potentially Dissolved	Prep	200.8			50	mL	50	mL	95930	11/14/11 06:30	CLI	TAL DEN
Potentially Dissolved	Analysis	200.8		1					96473	11/15/11 17:06	LT	TAL DEN
Potentially Dissolved	Prep	200.7			50	mL	50	mL	95937	11/14/11 14:00	JM	TAL DEN
Potentially Dissolved	Analysis	200.7 Rev 4.4		1					96488	11/16/11 03:06	JKH	TAL DEN
Total Recoverable	Prep	200.7			50	mL	50	mL	96029	11/14/11 14:00	JM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1					96491	11/16/11 04:31	JKH	TAL DEN
Potentially Dissolved	Prep	245.1			30	mL	30	mL	96683	11/17/11 10:30	BLR	TAL DEN
Potentially Dissolved	Analysis	245.1		1					96985	11/17/11 19:44	BLR	TAL DEN
Potentially Dissolved	Prep	200.8			50	mL	50	mL	97606	11/28/11 08:30	JKH	TAL DEN
Potentially Dissolved	Analysis	200.8		1					97852	11/28/11 20:35	TEL	TAL DEN
Total/NA	Analysis	7196A		1					95680	11/10/11 11:04	JMT	TAL DEN
Total/NA	Analysis	SM 2540D		1	4	mL	250	mL	96214	11/14/11 13:37	PAG	TAL DEN
Total/NA	Analysis	SM 2540C		1	3	mL	100	mL	96342	11/15/11 09:43	BJD	TAL DEN
Total/NA	Analysis	7196A		1	1.0	mL	1.0	mL	96878	11/18/11 07:49	DG	TAL DEN

## Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TestAmerica Job ID: 280-22635-1

Client: Pinyon Env Eng Resources, Inc. Project/Site: US 6 and BNSF

TestAmerica Denver

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
estAmerica Denver	Alabama	State Program	4	40730
estAmerica Denver	Alaska	Alaska UST	10	UST-30
estAmerica Denver	Arizona	State Program	9	AZ0713
estAmerica Denver	Arkansas	State Program	6	88-0687
estAmerica Denver	California	State Program	9	2513
estAmerica Denver	Colorado	State Program	8	N/A
estAmerica Denver	Connecticut	State Program	1	PH-0686
estAmerica Denver	Florida	NELAC	4	E87667
estAmerica Denver	Georgia	State Program	4	N/A
estAmerica Denver	Idaho	State Program	10	CO00026
estAmerica Denver	Illinois	NELAC	5	200017
estAmerica Denver	Iowa	State Program	7	370
estAmerica Denver	Kansas	NELAC	7	E-10166
estAmerica Denver	Louisiana	NELAC	6	30785
estAmerica Denver	Maine	State Program	1	CO0002
estAmerica Denver	Maryland	State Program	3	268
estAmerica Denver	Minnesota	NELAC	5	8-999-405
estAmerica Denver	Nevada	State Program	9	CO0026
estAmerica Denver	New Hampshire	NELAC	1	205310
estAmerica Denver	New Jersey	NELAC	2	CO004
estAmerica Denver	New Mexico	State Program	6	N/A
estAmerica Denver	New York	NELAC	2	11964
estAmerica Denver	North Carolina	North Carolina DENR	4	358
estAmerica Denver	North Dakota	State Program	8	R-034
estAmerica Denver	Oklahoma	State Program	6	8614
estAmerica Denver	Oregon	NELAC	10	CO200001
estAmerica Denver	Pennsylvania	NELAC	3	68-00664
estAmerica Denver	South Carolina	State Program	4	72002
estAmerica Denver	Tennessee	State Program	4	TN02944
estAmerica Denver	Texas	NELAC	6	T104704183-08-TX
estAmerica Denver	USDA	USDA		P330-08-00036
estAmerica Denver	Utah	NELAC	8	QUAN5
estAmerica Denver	Washington	State Program	10	C1284
estAmerica Denver	West Virginia	West Virginia DEP	3	354

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Wisconsin

State Program

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999615430

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

	Chain of Custody Number	070047	Page of		Special Instructions/	Conditions of Receipt						-			-	(A fee may be assessed if samples are retained longer than 1 month)		Date, Time 11/10/11 08CC	Date Time	Date Time	
TestAmerica	Date	1 0 1 1	28007143	Analysis (Attach list if more space is needed)	\$\frac{1}{2}	N 23 A 11/ N 55/( N 73	1 - 1 55] 1   7 57		2							Months		C)			
Sampler ID CAR Temperature on Receipt CAR II/In/u		artheter	a code)/raxwumber	-	N chulk Junster	Containers &	read	PN OH > VH > ZH								oosal o Client 🔲 Disposal By Lab 🔲 Archive For	QC Requirements (Spo	1. Received By	e 2. Rećeived By	e 3. Received By	
Sampler IDTemperature on Re	Drinking Water C	wrest Brien Fortmatter	202   303-920	Site	Carrier/Waybill Number	Matrix	snoə:	NIA NIA	<u> </u>							Sample Disposal Son B Unknown	Dave   Other	Date		Date Time	
Chain of Custody Record	AL-4124-280 (0508) Slent	you town on the town Resorted	15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	State Zip Code	Project Name and Location (State)	Contract/Purchase Order/Quote No.		ers for each sample may be combined on one line)	11-11							Possible Hazard Identification	Time Required	d By	2. Relinquished By	3. Relinquished By	Comments

## **Login Sample Receipt Checklist**

Client: Pinyon Env Eng Resources, Inc. Job Number: 280-22635-1

Login Number: 22635 List Source: TestAmerica Denver

List Number: 1

Creator: Cofoid, Stephen T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	NO SAMPLE TIME ON COC
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

5

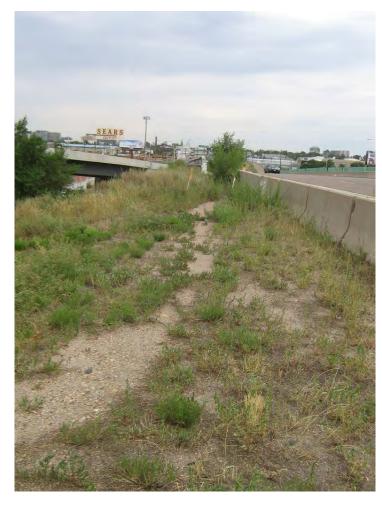
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10

13

15



1. North Side of Bridge, Looking East



2. Pedestrian Walkway on the North Side of Bridge

3. Looking at the West Side of Bridge



4. Transient Belongings Under Bridge



5. Underside of Bridge on the South Side



6. Caulking on Bridge Pier at the South End





January 23, 2013

Marvinetta Hartwig Hartwig & Associates, Inc. 188 Inverness Drive West, Suite 675 Englewood, CO 80112

Subject: Hazardous Material Site Investigation
U.S. Highway 6 Bridges at Interstate 25 and BNSF Railroad, Denver, Colorado
RMC Consultants Project E12-023-154

Dear Ms. Hartwig:

RMC Consultants, Inc. (RMC) is pleased to provide Hartwig & Associates, Inc. (Hartwig) with this letter report to present the observations and results from a Hazardous Material Site Investigation (SI) performed in December 2012 in accordance with RMC's December 2012 Work Plan. The SI was conducted as a supplemental study in connection with the preconstruction and redevelopment of the U.S. Highway 6 (6<sup>th</sup> Avenue) and I-25 Bridge and 6<sup>th</sup> Avenue and Burlington Northern Santa Fe (BNSF) Railroad Bridge in the City and County of Denver. All work was performed within the Colorado Department of Transportation (CDOT) right-of-way (see Figure 1).

#### **Limited Subsurface Investigation**

The SI field work took place on December 20, and 26, 2012, and included the installation of four boreholes/temporary monitor wells adjacent to the planned bridge construction activity. The drilling of the borings was supervised and logged by an RMC professional geologist. Drilling work was performed by Site Services Inc., of Golden, Colorado. RMC personnel logged the borings to record the lithology encountered and any evidence of petroleum hydrocarbon impact, evidence of chemical impacts, and the depth to groundwater. Borehole logs are included in Attachment 1.

RMC personnel supervised the installation and completion of the temporary groundwater monitoring well in each of the borings, which were selected based on their location adjacent to the planned bridge construction activity. Soils collected during borehole advancement were examined for evidence of staining or odor, and were screened using a photoionization detector (PID) to assess the presence of volatile organic compounds. No evidence of petroleum hydrocarbon or chemical impacts was observed in any of the soil borings.

Soil samples were collected from three intervals in each of the boreholes: 0 to 2 feet, an intermediate depth, and at the vadose zone and groundwater interface. Samples were placed into laboratory provided glass sample jars and submitted to TestAmerica's Laboratory in Arvada, Colorado, for the analysis of volatile organic compounds (VOCs) by Method SW 8260B, total concentrations of eight Resource Conservation and Recovery Act (RCRA) Metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW 6010B/SW 7471A, and polychlorinated biphenyles (PCBs) by

12295 W. 48<sup>th</sup> Avenue, Unit A Wheat Ridge, CO 80033 303.980.4101 (t), 303.980.4107 (f) www.rmc-consultants.com Ms. Marvinetta Hartwig January 23, 2013 Page 2 of 9

Method SW 8082, and herbicides and pesticides by Methods 8151A/8081A. An additional soil sample was collected from the uppermost interval (0 to 2 feet) in each borehole and was submitted to TestAmerica for asbestos analysis by polarized light microscopy (PLM) Method 600/R-93-116. The sample jars were labeled with the date, time, analytical parameters, and were placed into coolers and stored on ice. The soil samples were transported to TestAmerica's laboratory following chain-of-custody protocols. The asbestos samples were submitted to TestAmerica but analyzed by EMLab P&K in Costa Mesa, California.

Following completion of the borehole to a depth of at least 10 feet into the water table, temporary monitoring wells were constructed through the hollow-stem augers. The wells were constructed using 2-inch diameter schedule 40 polyvinyl chloride (PVC) 0.010-inch factory slotted screen and 2-inch diameter schedule 40 PVC blank pipe casing. Fifteen feet of well screen was used in each well. The annular space around the screen was filled with 10-20 Colorado Silica Sand. The sand pack was placed from the bottom of the well to a level two feet above the top of the well screen. The remaining annular space in the wells around the blank PVC pipe casing was filled with 3/8-diameter bentonite chips. Bentonite was placed from the sand pack up to the ground surface. Wells were quickly developed and sampled immediately thereafter. Groundwater sampling logs are included in Attachment 1. The locations of each of the boreholes/temporary wells were located with a Trimble GeoExplorer GPS. The wells were abandoned per the requirements of the State Engineer's Office immediately following collection of groundwater samples. A notice of intent was filed with the Colorado State Engineer's Office. Well Abandonment Reports were also filed with the Colorado State Engineer's Office. All drill cuttings (8 55-gallon drums), purge water, and decontamination water (3 55-gallon drums) investigative derived waste (IDW) was removed from the site as required by CDOT and temporarily staged at RMC's office until analytical results can be used to characterize the waste for disposal. Soil IDW will be transported and disposed of at the Front Range Landfill in Erie, Colorado. Water IDW will be transported and disposed of at the Affiliated Wastewater Treatment facility in Denver, Colorado.

#### **Groundwater Sampling**

Groundwater samples were collected from the four temporary monitoring wells on December 20 and 26, 2012. Prior to groundwater sampling, the depth to groundwater was measured using a water level indicator in each of the monitoring wells relative to the ground surface. The depth to groundwater ranged from 13 feet below ground surface (bgs) (NE-02) to 40 feet bgs (NW-02). Field parameters including temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential were measured in each of the wells. A summary of monitoring well field parameters is included in Table 1 and groundwater sampling logs are included in Attachment 1. In accordance with the Work Plan, the monitoring wells were minimally developed (i.e., purged with a submersible pump for approximately 30 minutes prior to sampling). Groundwater flow is expected to be west-northwest directed toward and parallel to the flow in the South Platte River.

The groundwater samples were collected using submersible pump at a reduced flow rate. The samples were placed into laboratory provided containers and were shipped on ice to TestAmerica's Laboratory in Arvada, Colorado, for the analysis following chain-of-custody protocols. The groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs) by Method SW 8260B, total and dissolved concentrations of eight Resource Conservation and Recovery Act (RCRA) Metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW 6010B/SW 7470A, and Semi-volatile Organic Compounds (SVOCs) by Method SW 8270C, Oil and Grease by Methods 1664A, pH, Total Suspended Solids (TSS), and Gross Alpha and Gross Beta by Method 900.0.

#### Soil Analytical Results (Bridge F-16-EJ)

The laboratory analytical results for the soil samples collected at bridge F-16-EJ indicated that four VOC concentrations were detected above the laboratory reporting limit (RL) in three soil samples. Acetone was reported at a concentration of 78 micrograms/kilogram ( $\mu g/kg$ ) in NW-02 at 25 feet bgs and at 36  $\mu g/kg$  in SE-01 at 34 feet bgs. Methylcyclohexane was reported at a concentration of 12  $\mu g/kg$  in NW-02 at 25 feet bgs and at 11  $\mu g/kg$  in NW02 at 37 feet bgs. Analytical results for 2-butanone (methyl ethyl ketone [MEK]), carbon disulfide, methyl acetate, and cyclohexane results are qualified with a "J" indicating that they are an estimated concentration, detected above the method detection limits (MDL), but less than the laboratory reporting limits (RL). Acetone and bromoform (common laboratory contaminants) were detected in three samples and in the associated method blank and are qualified with a "B". The VOC sample results qualified with a "B" have been reviewed and further qualified as non-detect. All VOCs detected are below the state regulatory limits for these compounds in soils.

The VOC detections for the F-16-EJ bridge are shown on Table 2 and are compared to the Colorado Soil Evaluation Values (CSEV) established by the Colorado Department of Public Health and Environment (CDPHE) as soil cleanup standards (July 2011) as part of the Voluntary Cleanup Program. The most stringent soil cleanup standards are the residential soil standards which are based on toxicology data and potential routes of exposure.

The soil samples were also submitted for analysis of eight RCRA metals. The results indicated that arsenic was detected at concentrations that exceed the residential soil standard in all six of the soil samples submitted from the F-16-EJ bridge boreholes. These arsenic concentrations are within the range of naturally occurring arsenic in the soils as detailed in Risk Management Guidance for Evaluating Arsenic Concentrations in Soil - Second Edition (CDPHE, 2011). The highest arsenic concentration was 6.1 mg/kg in boring NW-02 at 37 feet bgs. The laboratory reported that concentrations of barium were detected in all six soil samples, but none of the concentrations exceed the residential soil standard of 15,000 mg/kg. The barium results ranged from 50 mg/kg (SE-01 at 0 feet) to 400 mg/kg (SE-01 at 24 feet). Cadmium concentrations were reported above the MDL, but below the laboratory reporting limit in five of the six soil samples, and are qualified with a "J" as an estimated value. The laboratory reported that cadmium was detected above the MDL in sample NW-02 at 0 – 2 feet bgs, however, all of the cadmium results are well below the CSEV residential soil standard of 70 mg/kg. Chromium and lead were detected in all six soil samples at concentrations ranging from 11 to 17 mg/kg and 11 to 220 mg/kg, respectively, which are below their respective CSEV residential soil standards of 120,000 and 400, respectively. Selenium concentrations were reported above the MDL, but below the laboratory reporting limit in two of the six soil samples, and are qualified with a "J" as an estimated value. The remaining four selenium values were not detected above the MDL. All of the selenium results are below the CSEV residential soil standard of 390 mg/kg. Mercury concentrations were reported above the MDL, but below the laboratory reporting limit in three of the six soil samples, and are qualified with a "J" as an estimated value. The remaining three mercury values were not detected above the MDL. All of the mercury results are below the CSEV residential soil standard of 13 mg/kg.

The laboratory reported that concentrations of 4,4-DDT (3.2  $\mu g/kg$ ), chlordane (0.70  $\mu g/kg$ ), and PCB-1260 (24  $\mu g/kg$ ) were detected in the soil sample submitted from the surface sample at NW-02. These pesticides and PCB concentrations are below the CSEV residential soil limits of 1,700, 1,600, and 220  $\mu g/kg$ , respectively. No herbicides were detected above their respective MDLs in the six F-16-EJ bridge soil samples.

The laboratory reported that asbestos was not detected in the two surface soil samples from NW-02 and SE-01. A summary of soil analytical results from Bridge F-16-EJ is included as Table 2. Laboratory data sheets are included in Attachment 2.

#### Soil Analytical Results (Bridge F-16-DU)

The laboratory analytical results for the soil samples collected at Bridge F-16-DU indicated that no VOC compounds were detected above the laboratory RL. Acetone, methylene chloride, and tetrachloroethene results are qualified with a "J" indicating that they are an estimated concentration, detected above the MDL, but less than the laboratory RL. Bromoform (common laboratory contaminant), cyclohexane, and methylcyclohexane were detected in three samples and in the associated method blank and are qualified with a "B". The VOC sample results qualified with a "B" have been reviewed and further qualified as non-detect. All VOCs detected are below the state regulatory limits for these compounds in soils. The VOC detections for the F-16-DU Bridge are shown on Table 3 and are compared to the CSEV established by the CDPHE as soil cleanup standards (July 2011).

The soil samples were also submitted for analysis of eight RCRA metals. The results indicated that arsenic was detected at concentrations exceeding the residential soil standard in five of the six soil samples submitted from the F-16-DU Bridge boreholes. These arsenic concentrations are within the range of naturally occurring arsenic in the soils as detailed in Risk Management Guidance for Evaluating Arsenic Concentrations in Soil - Second Edition (CDPHE, 2011). The highest arsenic concentration was 6 mg/kg in boring SW-01 at 4 feet bgs and boring NE-02 at 0 feet bgs. The laboratory reported that concentrations of barium were detected in all six soil samples, but none of the concentrations exceed the residential soil standard of 15,000 mg/kg. The barium results ranged from 19 mg/kg (SW-01 at 11 feet) to 330 mg/kg (NE-02 at 0 feet). Cadmium concentrations were reported above the MDL, but below the laboratory reporting limit in five of the six soil samples, and are qualified with a "J" as an estimated value. All of the cadmium results are well below the CSEV residential soil standard of 70 mg/kg. Chromium and lead were detected in all six soil samples at concentrations ranging from 1.1 to 10 mg/kg and 1.5 to 170 mg/kg, respectively, which are below their respective CSEV residential soil standards of 120,000 and 400, respectively. Selenium concentrations were reported above the MDL, but below the laboratory reporting limit in two of the six soil samples, and are qualified with a "J" as an estimated value. The remaining four selenium values were not detected above the MDL. All of the selenium results are below the CSEV residential soil standard of 390 mg/kg. Mercury was detected in three soil samples at concentrations ranging from 0.019 to 0.58 mg/kg. Mercury concentrations were reported above the MDL, but below the laboratory reporting limit in two of the six soil samples, and are qualified with a "J" as an estimated value. The laboratory reported that Mercury was not detected above the MDL in the one remaining soil sample, and all of the mercury results are below the CSEV residential soil standard of 13 mg/kg.

The laboratory reported that concentrations of 4,4-DDE (1,900  $\mu$ g/kg) and 4,4-DDT (2,700  $\mu$ g/kg) were detected in the soil sample submitted from the surface sample at NE-02. These pesticide concentrations are above the CSEV residential soil limits of 1,400 and 1,700  $\mu$ g/kg, respectively and below the CSEV worker soil limits of 5,100 and 7,000  $\mu$ g/kg, respectively. 4,4-DDE and 4,4-DDT were detected above the RL in four other soil samples, except for the one 4,4-DDE detection in SW-01 at the surface which was between the MDL and RL and qualified with a "J" as an estimated value. 4,4-DDD, dieldrin, and heptachlor epoxide were reported above the MDL, but below the laboratory RL in three of the six soil samples, and are qualified with a "J" as an estimated value. Chlordane was detected in two samples and

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in the associated method blank and are qualified with a "B". The chlordane sample results qualified with a "B" have been reviewed and further qualified as non-detect. The laboratory reported that concentrations of PCB-1254 (61  $\mu$ g/kg) and PCB-1260 (64  $\mu$ g/kg) were detected in the soil sample submitted from the surface sample at SW-01. These PCB concentrations are below the CSEV residential soil limits of 220 $\mu$ g/kg. No herbicides were detected above their respective MDLs in the six F-16-DU Bridge soil samples.

The laboratory reported that asbestos was not detected in the two surface soil samples from SW-01 and NE-02. A summary of soil analytical results from Bridge F-16-DU is included as Table 3. Laboratory data sheets are included in Attachment 2.

#### **Groundwater Analytical Results (Bridge F-16-EJ)**

The laboratory analytical results for the groundwater samples collected at Bridge F-16-EJ indicated that one VOC compound (chloroform) was detection and qualified with a "J" indicating that it is an estimated concentration, detected above the MDL, but less than the laboratory RL. The VOC detected is below the state regulatory limits for this compound in groundwater. The VOC detections for the F-16-EJ Bridge are shown on Table 4 and are compared to current State of Colorado or federal maximum contaminant levels (MCLs).

A bis(2-ethylhexyl) phthalate (semi-volatile organic compound [SVOC]) concentration was reported above the MDL, but below the laboratory RL in the groundwater sample from NW-02, and is qualified with a "J" as an estimated value.

The groundwater samples were also submitted for analysis of eight RCRA metals, for both total and dissolved values. The laboratory reported concentrations of dissolved barium were detected at a concentration of 170  $\mu$ g/L in both groundwater samples. The dissolved barium concentrations do not exceed the MCL of 2,000  $\mu$ g/L. Dissolved silver, arsenic, chromium, lead, and mercury were not detected in either groundwater sample above the MDL. Cadmium concentrations were reported above the MDL, but below the laboratory RL in both groundwater samples, and are qualified with a "J" as an estimated value. Dissolved selenium was detected in both groundwater samples at concentrations above the MDL, but below the laboratory RL and in the associated method blank and are qualified with a "B". The dissolved selenium sample result qualified with a "B" has been reviewed and further qualified as non-detect.

The laboratory reported that total arsenic was detected at a concentration of 27  $\mu$ g/L in NW-02 and total lead was detected in both groundwater samples at concentrations of 12  $\mu$ g/L in SE-01 and 54  $\mu$ g/L in NW-02. The total lead and arsenic concentrations detected in NW-02 exceeds the MCL of 50  $\mu$ g/L and 10  $\mu$ g/L, respectively. Total silver was not detected in either groundwater sample above the MDL. Total selenium concentrations were reported above the MDL, but below the laboratory RL in both of the groundwater samples, and are qualified with a "J" as an estimated value. Total chromium and cadmium detected in sample SE-01 are also qualified with a "J" as an estimated value. Total cadmium was reported in sample NW-02 at a concentration of 8.4  $\mu$ g/L and also in the associated method blank at an estimated concentration of 0.65 J and is qualified with a "B" for blank contamination. The total cadmium is slightly above the MCL of 5  $\mu$ g/L. Total barium and mercury were detected in both samples and in the associated method blank and are qualified with a "B". The total metal sample results qualified with a "B" have been reviewed and further qualified as biased high due to the reported associated blank concentrations. RMC requested the laboratory re-analyze the total metals from

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sample NW-02 to ensure results for arsenic, cadmium, and lead were not in error. The re-analysis indicated very comparable results for all compounds except the cadmium results. As indicated above, cadmium was initially reported at a concentration of 8.4  $\mu$ g/L. The re-analysis results for total cadmium are reported as an estimated (between the RL and MDL) concentration of 1.6 J  $\mu$ g/L. Both the initial and re-analysis total metals results are shown in Table 4.

The laboratory reported that a concentration of oil and grease (1.8 milligrams per liter [mg/L]) was detected in the groundwater sample submitted from SE-01.

Analytical results for total suspended solids (TSS) from both groundwater samples were elevated due to the limited well development prior to sampling. TSS was reported at concentrations of 380 mg/L and 2400 mg/L in samples from SE-01 and NW-02, respectively. At this time, there is no state or federal MCL for oil and grease or TSS. However, there are construction discharge permit restrictions on oil and grease and TSS. Colorado Regulation 62.5 sets the TSS standard for a 7- and 30-day average concentration at 45 and 30 mg/L, respectively. Colorado Regulation 62.5 sets instantaneous maximum concentration for the Oil and Grease at 10 mg/L.

Gross alpha analytical results range from a low of 22.2 pCi/L in well SE-01 to a high of 159 pCi/L in well NW-02 at Bridge F-16-EJ. Both gross alpha values exceed the MCL of 15 pCi/L. Laboratory reported gross beta analytical results for the wells SE-01 and NW-02 are 25 and 88.9 pCi/L, respectively. The gross beta value of 88.9 exceeds the MCL of 50 pCi/L. A summary of groundwater analytical results from Bridge F-16-EJ is included in Table 4. Laboratory data sheets are included in Attachment 2.

#### **Groundwater Analytical Results (Bridge F-16-DU)**

The laboratory analytical results for the groundwater samples collected at Bridge F-16-DU indicated that three VOC compounds were detected (acetone, chloroform, and methyl tert-butyl ether) but are qualified with a "J" indicating that they are an estimated concentration, detected above the MDL, but less than the laboratory RL. All VOCs detected are below the state regulatory limits for these compounds in groundwater. The VOC detections for the F-16-EJ Bridge are shown on Table 4 and are compared to current State of Colorado or federal MCLs.

No SVOCs or oil and grease concentrations were detected above their respective MDLs in the two F-16-DU Bridge groundwater samples.

The groundwater samples were also submitted for analysis of eight RCRA metals, for both total and dissolved values. The laboratory reported no dissolved metals were detected above their respective RL except for barium which was also detected in the associated method blank and is qualified with a "B". The dissolved barium sample results qualified with a "B" have been reviewed and further qualified as biased high. The dissolved barium concentrations did not exceed the MCL of 2,000  $\mu$ g/L. Dissolved silver, arsenic, lead, and mercury were not detected in either groundwater sample above the MDL. Chromium and selenium concentrations were reported above the MDL, but below the laboratory RL in both of the groundwater samples, and are qualified with a "J" as an estimated value. Cadmium was also detected above the MDL, but below the RL, in the groundwater sample from NE-02 and qualified with a "J" as an estimated value.

The laboratory reported that total barium was detected at a concentration of 430  $\mu$ g/L in SW-01 and 310  $\mu$ g/L in NE-02, chromium was detected at concentrations of 28  $\mu$ g/L in SW-01 and 38  $\mu$ g/L in NE-02,

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and total lead was detected in both groundwater samples at concentrations of 21  $\mu$ g/L in SW-01 and 11  $\mu$ g/L in NE-02. Total silver, mercury, and arsenic in NE-02 were not detected in the groundwater samples above the MDL. Total cadmium and selenium concentrations were reported above the MDL, but below the laboratory RL in the groundwater samples, and are qualified with a "J" as an estimated value. Total arsenic detected in SW-01 was also qualified with a "J" as an estimated value. All total metals detected are below the state regulatory limits for these metals in groundwater.

The laboratory reported concentration of oil and grease were both non-detect in the groundwater sample submitted from SW-01 and NE-02.

Total suspended solids were reported at concentrations of 1,400 mg/L in SW-01 and 1,000 mg/L in NE-02. At this time, there is no state or federal MCL for oil and grease or TSS. However, there are construction discharge permit restrictions on oil and grease and TSS. Colorado Regulation 62.5 sets the TSS standard for a 7- and 30-day average concentration at 45 and 30 mg/L, respectively and sets instantaneous maximum concentration for the Oil and Grease at 10 mg/L.

Gross alpha analytical results in wells SW-01 and NE-02 at Bridge location F-16-DU are reported at 89.9 and 30.4 pCi/L, respectively. Both gross alpha values exceed the MCL of 15 pCi/L. Laboratory reported gross beta analytical results for wells SW-01 and NE-02 are 96.8 and 29.6 pCi/L, respectively. The reported gross beta values for these wells exceed the MCL of 50 pCi/L. It should be noted the samples analyzed for gross alpha/beta were not filtered and contained a fair amount of sediment due to limited well development. A summary of groundwater analytical results from Bridge F-16-EJ is included as Table 4. Laboratory data sheets are included in Attachment 2.

#### **Conclusions and Recommendations**

This hazardous materials SI found no environmental concerns associated with soil present at Bridge F-16-EJ. The soil results at Bridge F-16-DU indicated the presence of the pesticides 4, 4-DDE and 4, 4-DDT at concentrations above the residential screening level and below the worker screening level. If during future construction activity at this site, soil is to be moved off-site for disposal, the soil disposition will need to be managed appropriately. If the soil is not removed from the construction site, no special handing restrictions would be applicable because the site is not zoned for residential use and results are below worker screening levels.

Groundwater associated with Bridge F-16-DU (6<sup>th</sup> Avenue and I-25) was encountered between 13 and 14 feet bgs and did not have any reported RCRA metals, VOCs, SVOCs or oil and grease detected above Colorado or federal water quality standards. TSS is reported at concentrations between 1000 and 1400 mg/L and are above the General Construction Discharge Permit limits for 7-day and 30-day averages. Similary, gross alpha and beta values exceed their respective MCLs. Although gross alpha and beta values exceed the MCL, the values are likely due to naturally occurring elements such as uranium, thorium, or radium for alpha, and potassium for beta that occur within the geologic sediments in this region. If the elevated gross alpha and beta values are due to naturally occurring elements, the MCL exceedances are not a concern. Should dewatering activities be required as part of the bridge replacement and construction, mitigation measures to minimize suspended solids present in water prior to discharge will be necessary. Applicable permits from CDPHE for water discharge will also be

Ms. Marvinetta Hartwig January 23, 2013 Page 8 of 9

necessary to ensure proper water management. Proper water management may include monitoring to ensure discharges are within state regulatory limitations. Monitoring may include, but is not limited to: discharge rate, total suspended solids, total dissolved solids, gross alpha and beta with specific analyses for potassium and uranium, oil and grease, pH, metals, volatile organic compounds, etc.

Groundwater associated with Bridge F-16-EJ (6<sup>th</sup> Avenue and the BNSF Railroad) was encountered between 38 to 40 feet bgs. Groundwater at this location did not contain any VOCs or SVOCs at concentrations above Colorado or federal water quality standards. However, groundwater did contain the RCRA metals arsenic, cadmium, and lead at concentrations above their respective water quality standards in the "total" or non-filtered water sample analyses. These metals were reduced to below the water quality standard limits in the "dissolved" or filtered water sample analyses. As noted earlier, the re-analysis of the total metals sample from NW-02 indicated that cadmium at a concentration of 1.6 µg/L would not exceed regulatory limits. TSS are reported at concentrations as high as 2400 mg/L which are above the General Construction Discharge Permit limits for 7- and 30-day averages. As noted above, one gross beta and both gross alpha values exceed their respective MCLs. These gross alpha and beta concentrations are likely due to naturally occurring values and associated with the geologic sediments in this region. Construction dewatering activity associated with this bridge replacement, if necessary, will likely require mitigation. Mitigation may include obtaining applicable permits from CDPHE for water discharge and discharge monitoring as noted above.

As part of this SI, RMC reviewed environmental assessment reports at Denver Environmental Health associated with the 6<sup>th</sup> Avenue and Osage Street Union Pacific Railroad Burnham Yard area located adjacent and to the east of the F-16-EJ Bridge. Several investigations starting in 1999 and going through 2005 have been completed and have identified at least three fuel related shallow groundwater plumes associated with multiple diesel fuel releases from above ground and underground storage tanks. The western edges of these fuel related plumes are within a quarter mile of the F-16-EJ Bridge replacement project area. Although fuel related contaminants were not detected at the two temporary wells installed at F-16-EJ (except very minor concentration of oil and grease in SE-01), it is cautioned that during the construction of the replacement bridge, fuel related contaminants may be encountered in shallow groundwater and mitigation measures may be required.

#### **Limitations of Assessment**

The statements and recommendations included in this letter are based on a limited scope of services. RMC Consultants, Inc. (RMC) and their agents, employees, and attorneys make no representation that environmental hazards or conditions beyond the scope included in this SI are fully known or characterized. Statements and conclusions in this letter are an assessment of the environmental conditions noted during the execution of this site inspection and are not a guarantee of the property's overall environmental conditions. Conclusions reached are based on available information at the time of the SI.

RMC appreciates this opportunity to perform this SI for Hartwig and Associates. Please contact David Groy or me at (303) 980-4101 if you have any questions.

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Sincerely,

RMC Consultants, Inq.

Claude D. Murray, PG, PMP Senior Project Manager

#### Attachments

Figure 1 – Borehole/Temporary Well Location Map

Tables 1 – Summary of Monitoring Well Field Parameters

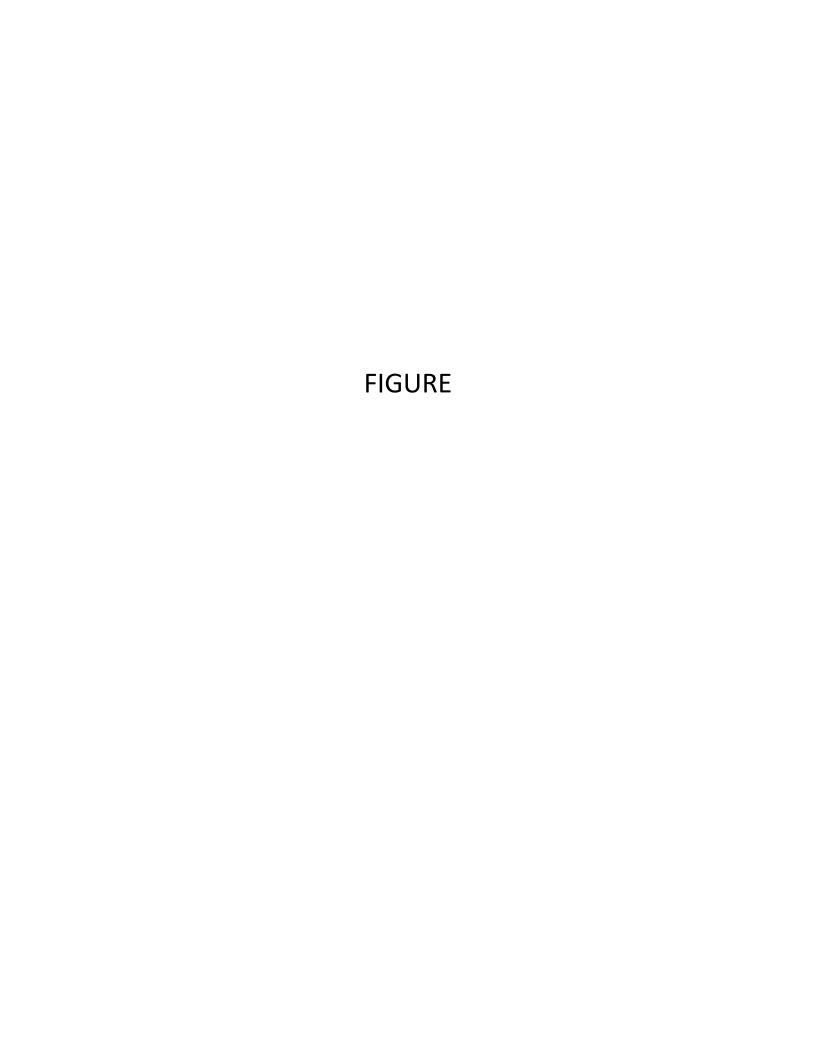
Table 2 – Summary of Bridge F-16-EJ Soil Analytical Detections

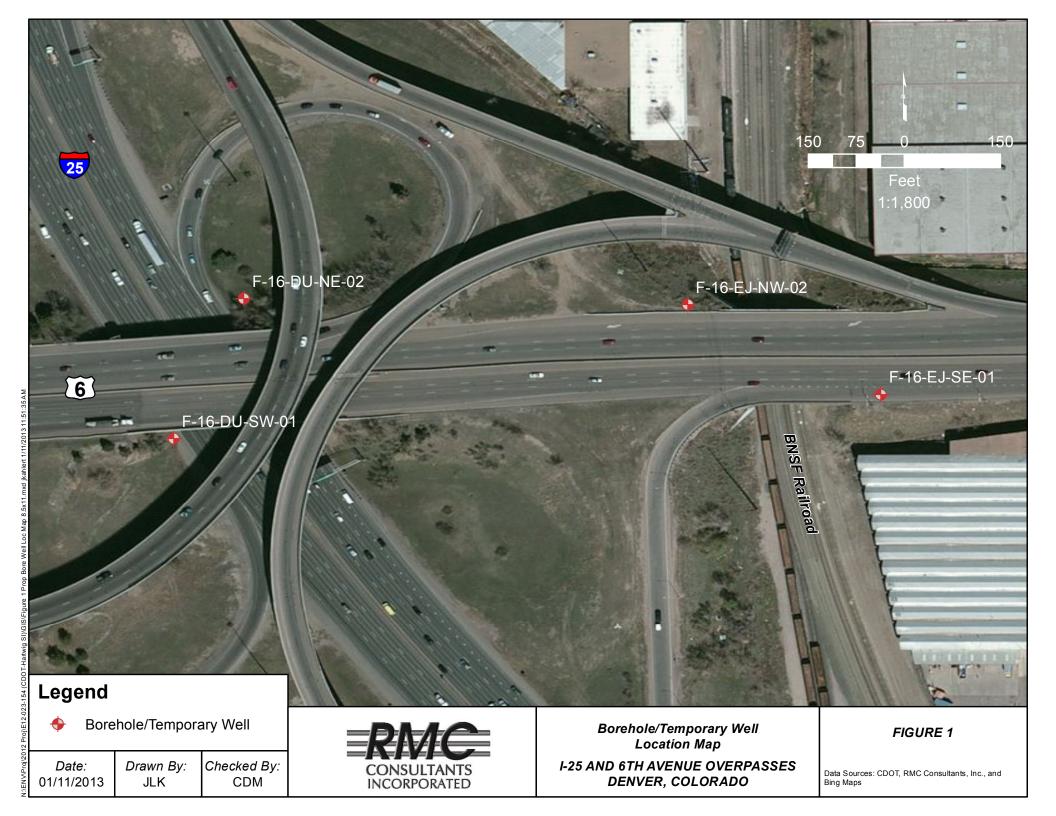
Table 3 – Summary of Bridge F-16-DU Soil Analytical Detections

Table 4 – Summary of Groundwater Analytical Detections

Attachment 1 – Drilling Logs and Groundwater Sampling Logs

Attachment 2 – Laboratory Analytical Data Sheets





# **TABLES**

**Table 1. Summary of Monitoring Well Field Parameters** 

	Bridge	e F-16-EJ	Bridge F-16-DU				
Parameter	SE-01-GW	NW-02-GW	SW-01-GW	NE-02-GW			
	12/20/2012	12/20/2012	12/26/2012	12/26/2012			
Borehole/Temporary Well Location							
Northing	N 39.729525	N 39.725909	N 39.725351	N 39.72589			
Westing	W 105.010400	W 105.011232	W 105.013432	W 105.013064			
Borehole Total Depth (feet below ground surface)							
	48.9	50	25	25			
Depth to Groundwater (ft bgs)							
	38	40.12	13.6	12.98			
Depth to Bedrock Contact (ft bgs)							
	48	Not Reached	23.5	23			
Temporary Well Screen Interval (ft bgs)							
	33 - 48	35 - 50	10 - 25	10 - 25			
Field Water Quality Parameters (closed cell)							
Dissolved Oxygen (mg/L)	1.25	0.04	1.32	0.15			
ORP (mV)	67.1	57.6	111.8	16.5			
Temperature ( ° Celsius )	17.3	17.14	16.88	16.07			
рН	6.79	6.83	6.73	6.73			
Conductivity (mS/cm)	1.237	1.311	1.291	1.25			
Turbidity (NTUs)	221	1215	934	311			

ft bgs = Feet below ground surface

mg/L = milligram per liter

mV = millivolt

mS/cm = milliSiemen per centimeter

NTU = Nephelometric Turbidity Units

Table 2. Summary of Bridge F-16-EJ Soil Analytical Detections

		Bridge F-16-EJ											
	Sample ID		2-(0-2)	NW-02-	-(25-27)	NW-02-	-(37-39)	SE-01	(0-2)	SE-01-(	24-26)	SE-01-	(34-36)
Analytical Parameter	CSEV Table Soil Screening Levels	12/20	/2012	12/20	/2012	12/20	/2012	12/20	/2012	12/20	/2012	12/20/2012	
	(Resid. / Worker)	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
Total RCRA 8 Metals by 6010B/7471A [mg/kg]													
Ag (Silver)	390 / 5,100	<	0.96	<	0.98	<	1.2	<	0.96	<	1.1	<	1.2
As (Arsenic)	0.39 / 1.6 / 19 <sup>1</sup>	4.0	1.9	4.1	2	6.1	2.5	2.2	1.9	3.1	2.1	5.3 J	12
Ba (Barium)	15,000 / 160,000	120	0.96	170	0.98	130	1.2	50	0.96	400	1.1	230	5.8
Cd (Cadmium)	70 / 770	0.62	0.48	0.27 J	0.49	0.12 J	0.6	0.1 J	0.48	0.28 J	0.53	0.18 J	0.58
Cr (Chromium)	120,000 / 1,500,000	13	1.4	13	1.5	17	1.8	11	1.4	13	1.6	17	1.7
Pb (Lead)	400 / 800	220	0.77	15	0.78	13	0.98	13	0.77	11	0.85	12	0.93
Se (Selenium)	390 / 5,100	<	1.2	<	1.3	1.1 J	1.6	<	1.2	0.95 J	1.4	<	1.5
Hg (Mercury)	13 / 160	0.12	0.021	0.038	0.017	0.013 J	0.025	0.017	0.016	0.017 J	0.019	0.011 J	0.027
VOCs by 8260B [μg/kg]													
Acetone	61,000,000 / 380,000,000	15 JB	21	<	23	78	26	9.1 JB	20	14 JB	24	36	24
2-Butanone (MEK)	28,000,000 / 91,000,000	2.2 J	21	<	23	17 J	26	<	20	<	24	4.9 J	24
Bromoform	25,000 / 40,000	<	5.2	<	5.6	<	6.4	0.30 JB	5.1	0.27 JB	5.9	<	6.1
Carbon disulfide	740,000 / 1,100,000	<	5.2	<	5.6	<	6.4	<	5.1	<	5.9	1.3 J	6.1
Methyl acetate	_	4.7 J	10	<	11	<	13	<	10	<	12	<	12
Cyclohexane	310,000,000 / 3,100,000,000	<	5.2	5.5 J	5.6	5.2 J	6.4	<	5.1	<	5.9	<	6.1
Methylcyclohexane	_	<	5.2	12	5.6	11	6.4	<	5.1	<	5.9	<	6.1
All other compounds	_	<	_	<	_	<	_	<	_	<	_	<	_
Pesticides & PCBs by 8081A/8082 [µg/kg]			•						•				
4, 4-DDT	1700 / 7000	3.2 P	1.8	<	1.9	<	2.1	<	8.8	<	2	<	11
Chlordane	1600 / 6500	0.70 JP	1.8	<	1.9	<	2.1	<	8.8	<	2	<	11
PCB-1260	220 / 740	24 J	35	<	35	<	42	<	34	<	38	<	42
All other compounds	_	<	_	<	_	<	_	<	_	<	_	<	_
Herbicides by 8151A [µg/kg]													
All Compounds	_	<	_	<	_	<	_	<	_	<	_	<	_
Asbestos by PLM													
All Compounds	_	<	1%	NA	_	NA	_	<	1%	NA	_	NA	_

CSEV = Colorado Soil Evaluation Value (July 2011)

RCRA = Resource Conservation Recovery Act

VOCs = Volatile Organic Compounds

SVOCs = Semi Volatile Organic Compounds

PCBs = Polychlorinated biphenyls

PLM = Polarized light microscopy

mg/kg = milligram per kilogram

μg/kg = microgram per kilogram

< = Less than the method reporting limit

< = Less than the method reporting i

RL = Method Reporting Limit NA = Not Analyzed

— = no value

- J Result is less than the RL but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.
- B Compound was found in the associated blank and sample. Results reviewed and further qualified as non-detection.
- P The %RPD between the primary and confirmation column detector is >40%. The lower value has been reported.
- 1 Colorado Department of Public Health and Environment (CDPHE) background soil arsenic concentration in Colorado for Urban Mixed Use land.

Table 3. Summary of Bridge F-16-DU Soil Analytical Detections

		Bridge F-16-DU											
	Sample ID	SW-01-	-(0-2)	SW-01	(4-6)	SW-01-	(11-13)	NE-02	-(0-2)	NE-02	-(4-6)	NE-02-	(9-11)
Analytical Parameter	CSENTEND SETTEMENT OF THE PROPERTY OF THE PROP	12/26/	2012	12/26	/2012	12/26	/2012	12/26	/2012	12/26	/2012	12/26	/2012
·	CSEV Table Soil Screening Levels (Resid. / Worker)	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
Total RCRA 8 Metals by 6010B/7471A [mg/kg]													
Ag (Silver)	390 / 5,100	<	0.94	<	1.1	<	0.89	0.4 J	1.1	<	1.1	<	1
As (Arsenic)	0.39 / 1.6 / 19 <sup>1</sup>	3.5	1.9	6	2.2	0.8 J	1.8	6	2.1	3.9	2.1	2.1	2
Ba (Barium)	15,000 / 160,000	160	0.94	110	1.1	19	0.89	330	1.1	100	1.1	34	1
Cd (Cadmium)	70 / 770	0.17 J	0.47	0.076 J	0.54	<	0.45	0.52 J	0.54	0.12 J	0.53	0.048 J	0.5
Cr (Chromium)	120,000 / 1,500,000	10	1.4	8.4	1.6	1.1 J	1.3	10	1.6	9	1.6	3.3	1.5
Pb (Lead)	400 / 800	35	0.75	37	0.87	1.5	0.71	170	0.86	28	0.85	8.1	0.8
Se (Selenium)	390 / 5,100	0.88 J	1.2	<	1.4	<	1.2	1.3 J	1.4	<	1.4	<	1.3
Hg (Mercury)	13 / 160	0.019	0.017	0.02	0.02	<	0.017	0.58	0.018	0.014 J	0.02	0.009 J	0.017
VOCs by 8260B [µg/kg]				_				_		_			
Acetone	61,000,000 / 380,000,000	<	26	<	27	<	19	<	20	7.4 J	22	13 J	19
Bromoform	25,000 / 40,000	<	6.5	<	6.7	<	4.7	0.33 JB	4.9	0.36 JB	5.5	0.29 JB	4.7
Methylene Chloride	12,000 / 16,000	<	6.5	<	6.7	<	4.7	2 J	4.9	<	5.5	1.6 J	4.7
Cyclohexane	310,000,000 / 3,100,000,000	0.56 JB	6.5	<	6.7	<	4.7	<	4.9	<	5.5	<	4.7
Methylcyclohexane	_	1.3 JB	6.5	<	6.7	<	4.7	<	4.9	<	5.5	<	4.7
Tetrachloroethene	520 / 950	<	6.5	<	6.7	<	4.7	<	4.9	<	5.5	0.9 J	4.7
All other compounds	_	<	_	<	_	<	_	<	_	<	_	<	_
Pesticides & PCBs by 8081A/8082 [µg/kg]													
4, 4-DDD	2000 / 7200	<	8.7	<	1.8	<	1.6	140 J	340	<	18	<	8.6
4, 4-DDE	1400 / 5100	1.5 JP	8.7	2	1.8	<	1.6	1900	340	58	18	18	8.6
4, 4-DDT	1700 / 7000	12 P	8.7	2.0 P	1.8	<	1.6	2700	340	98	18	40	8.6
Chlordane	1600 / 6500	2.8 JBP	8.7	1.5 JB	1.8	<	1.6	<	340	<	18	<	8.6
Dieldrin	30 / 110	5.7 J	8.7	0.43 J	1.8	<	1.6	<	340	<	18	<	8.6
Heptachlor epoxide	53 / 190	<	8.7	0.68 J	1.8	<	1.6	<	340	<	18	<	8.6
PCB-1254	220 / 740	61	34	<	36	<	31	<	33	<	34	<	33
PCB-1260	220 / 740	64	34	<	36	<	31	<	33	<	34	<	33
All other compounds	_	<	_	<	_	<	_	<	_	<	_	<	_
Herbicides by 8151A [μg/kg]													
All Compounds	_	<	_	<	_	<	_	<	_	<	_	<	_
Asbestos by PLM													
All Compounds	_	<	1%	NA	_	NA	_	<	1%	NA	_	NA	_

CSEV = Colorado Soil Evaluation Value (July 2011)

RCRA = Resource Conservation Recovery Act

VOCs = Volatile Organic Compounds

SVOCs = Semi Volatile Organic Compounds

PCB = Polychlorinated biphynols

PLM = Polarized light microscopy

mg/kg = milligram per kilogram

μg/kg = microgram per kilogram

< = Less than the method reporting limit

RL = Method Reporting Limit

NA = Not Analyzed

— = no value

- J Result is less than the RL but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value.
- B Compound was found in the associated blank and sample. Results reviewed and further qualified as non-detection.
- P The %RPD between the primary and confirmation column detector is >40%. The lower value has been reported.
- <sup>1</sup> Colorado Department of Public Health and Environment (CDPHE) background soil arsenic concentration in Colorado for Urban Mixed Use land. Bold indicates analyte detected above the method detection limit (MDL).

Highlighted value indicates results above the residential soil screening value.

**Table 4. Summary of Groundwater Analytical Detections** 

		Bridge	e F-16-EJ	Bridge F-16-DU					
	Sample ID	SE-01	l-GW	NW-02	-GW	SW-0	1-GW	NE-02	2-GW
Analytical Parameter		12/20	/2012	12/20/2	2012	12/26	/2012	12/26	/2012
Analytical Falameter	State or Federal	Results	RL	Results	RL	Results	RL	Results	RL
	Groudwater MCLs <sup>1</sup>								
HEM Oil & Grease by 1664A (C10-C28) [mg/L]								,	
	10 4	1.8	5.6	<	18	<	8.7	<	9.1
Total Suspended Solids by 2540D [mg/L]									
TSS	30 / 45 <sup>3</sup>	380	20	2400	100	1400	40	1000	40
Dissolved <sup>2</sup> RCRA 8 Metals by 6010B/7470A [ug/L]									
Ag (Silver)	50	<	10	<	10	<	10	<	10
As (Arsenic)	10	<	15	<	15	<	15	<	15
Ba (Barium)	2000	170	10	170	10	170 B	10	150 B	10
Cd (Cadmium)	5	0.48 J	5	0.61 J	5	<	5	0.49 J	5
Cr (Chromium, Total)	100	<	10	<	10	1.3 J	10	0.85 J	10
Pb (Lead)	50	<	9	<	9	<	9	<	9
Se (Selenium)	20	11 JB	15	12 JB	15	11 J	15	9.6 J	15
Hg (Mercury)	1.1	<	0.2	<	0.2	<	0.2	<	0.2
Total RCRA 8 Metals by 6010B/7470A [ug/L]									
Ag (Silver)	50	<	10	<</td <td>10</td> <td>&lt;</td> <td>10</td> <td>&lt;</td> <td>10</td>	10	<	10	<	10
As (Arsenic)	10	<	15	27 / 27	15	7.2 J	15	<	15
Ba (Barium)	2000	250 B	10	650 B / 620	10	430	10	310	10
Cd (Cadmium)	5	0.99 J	5	8.4 B / 1.6 J	5	0.68 J	5	0.58 J	5
Cr (Chromium, Total)	100	7.9 J	10	77 B / 67	10	28	10	38	10
Pb (Lead)	50	12	9	54 / 52	9	21	9	11	9
Se (Selenium)	20	11 J	15	11 J / 11 J	15	12 J	15	9.7 J	15
Hg (Mercury)	1.1	0.57 JB	0.2	0.11 JB	0.2	<	0.2	<	0.2
VOCs by 8260B [ug/L]									
Acetone		<	10	<		<	10	6.4 J	10
Chloroform	3.5	0.53 J	1	<	1	0.30 J	1	<	1
Methyl tert-butyl ether		<	5	<		<	5	0.29 J	5
All other compounds	_	<		<		<		<	
SVOCs by 8270C [ug/L]									
Bis(2-ethylhexyl) phthalate	2.5	<	9.5	2.1 J	9.7	<	9.6	<	9.5
All other compounds	_	<		<		<		<	
Gross Alpha/Beta by Method 900.0									
Alpha (pCi/L)	15	22.2	3	159	3	89.8	3	30.4	3
Beta (pCi/L)	50 <sup>5</sup>	25	4	88.9	4	96.8	4	29.6	4

- 1 Water standards are based on current state or federal Maximum Concentration Levels (MCLs).
- 2 Field samples were filtered to remove suspended solids using a 0.45 micron filter prior to being collected in the sample jar.
- 3 Colorado Reg. 62.5 sets TSS standard for 7=day average at 45 mg/L and 30-day average at 30 mg/L.
- 4 Colorado Reg. 62.5 sets instantaneous maximum concentration for oil & grease at 10 mg/L for discharge permits.
- 5 The MCL for Gross Beta is 4 mrem/year. Since there is no simple conversion between mrem/yr and pCi/L, EPA considers 50 pCi/L to be the level of concern for Gross Beta particle activity.
- J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
- <u>B Compound</u> was found in the associated blank and sample.
- Highlighted value indicates results above the State and or Federal Water Standard.

Total Metals was re-analyzed for NW-02 to confirm initial results. The second analysis is shown following the initial analysis.

# ATTACHMENT 1

DRILLING LOG														
COMPAN	Y NAME RMC CO	ONSUL	TANTS	i. INCWheat Ri		DRILLING	SUBCC			etvices		SHEET		
PROJECT  T-25 and 6th Avenue  RMC CONSULTANTS, INC., -Wheat Ridge, CO  SITE SETVICES  OF 2 SHEETS  LOCATION  F-16-DU North East Corner														
NAME OF DRILLER  JOSHUA ECKHOFF  MANUFACTURER'S DESIGNATION OF DRILL CME 75									75					
SIZES AND TYPES OF 4" ID HSA							HOLE LOCATION W 105.013064							
DRILLING EQUIPMENT Z" 5 plit 5 poon 140-16 Hammer					SURFACE ELEVATION							+		
		1			tver wy			5213						_
					DATE STARTED  12/26/12  DATE COMPLETED  12/26/12									
OVERBU	RDEN THIC	KNESS	2	3 f+			DEPTH GROUNDWATER ENCOUNTERED							
DEPTH D	RILLED INT	O ROCK	2	£+			DEPTH	TO WA	TER AND	ELAPSED TIM	EAFTER DE	RILLING (	SOMPLETED	
TOTAL DEPTH OF HOLE  2 1+  12.98 bg 5 30 m In u te 5  TOTAL DEPTH OF HOLE  25 ft  OTHER WATER LEVEL MEASUREMENTS														
GEOTEC	HNICAL SA	MPLES /		DISTURBED		ISTURBE	D CO	RED IN	ITERVAL/0	CORE BOX NO	D(S).			
SAMPLES	FOR CHE	MICAL AN	ALYSIS	VOCs	META	NIA	OTH	OTHER OT		OTHER OTHER		R TOTAL CORE		+
				3	3			metals		bes+95	PCBIHERB/PEST		RECOVERY %	
DISPOSIT	TION OF HO	DLE		BACKFILLED	MONITORING WEI			OTHER SIGNATUR		ATURE OF IN	URE OF INSPECTOR		110	
Abandoned				Bonton (te Chips (5)	on the Temp		1			Augus Muh		100		
ELEV.	DEPTH		DESCR	IPTION OF MATERIAL	.S	SCRE	ELD ENING EULTS	SAN	OTECH MPLE OR E BOX NO	ANALYTICAL SAMPLE NO.	GRAPHIC		REMARKS	
	=	sm-	- olu	ve gray sy	4/1,	PPY		5		NE-02-0		1119		
	=Grave			ely Silty Sand, fire			<b>.</b>	5	22"					E
1 10 cc			parse Seind with 5.1t				6							
	2.0 —	SM-olive gray Sy 4/1, Gravely Silty Sand, fire to coarse Sand with Silt and fire Angular gravel, Dry, Massive, moderatly												E
	=	hard	, w	no staining, no Roots.										E
	, <u>:</u> =	odor	s, Ro											
	=													E
	4.0 —	5 40	. / N	avely Sulty s	Sand			,			ı			E
		as	abo	se.		3,8		2		NE-02-4		1124	126	E
	2=						9	22"	2"				E	
	=		22.50	1010	51-		8							E
	6.0 —	24-	500	own 104R 5/3, and, Dry, bose, ang, no odors										E
		no s	tain	my, no odo	42									E
	=			•										E
														E
	8.0 —	1												
														E
		Sm-	Dar	K Brown 10	YR 3/3,	4,5		Z	11	NE.OZ. 9		1137	)	
	10.0	silty .	5 cend.	fine to median	n sand			4	4"			-1 02		

DRILLING LOG										
PROJEC	T-25	- and 6th Avenue INS	SHEET Z OF Z SHEETS							
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERIALS	Fix 1d Screen Revolts IPPM	Blow Counts Recovery	Analytical DRILL TIME. Sample No.	DRILL ROD	REMARKS			
		SM-Dark Brown 10483 5 ilty Sand, five to medium Sand with 5,14, 50ft, Moist, no staining, no odors.  SP-Brown 1048513, Gravely Sand, medium to Coarse subrounded Sand With fine subrounded gravel, wet, 100se, no staining, no odor	3.6	80 617			13,5' Water 1140			
	20 ====================================	SP-Same as above except with coarse sub 10 unded gravel.	3,2	11 29 23* 47			us7			
	24	Claystone-Dark Gray N3, Dry, Blocky, no odor, no staining	3, 3	33 12" 50/3"			Bedrock contact per briller.			

					DRIL	LING	LOG	;				HOLE N	10. Nu	0- <b>4</b> Z
COMPAN	Y NAME RMC CO	ONSULTAN	ITS, II	NC., -Wheat F	Ridge, CO	DRILLING	SUBCO	NTRACTO	SI	eservi	ces	SHEET OF	1	HEETS
PROJECT							LOCATIO	F-10	a-F	TAL	reh mas	5-4 C	orner	
NAME OF	DRILLER	d 6th Jereny	illo	rn			MANUFA	CTURER	'S DES	IGANATION O	FDRILL	ME 7	5	
SIZES AN	D TYPES O	F /		4" ID	HSA		HOLE LOCATION N39:725909 W105.011232							
DIVILLING	LQOII WILI	``  -	7"	5plit -	poons	_	SURFACE ELEVATION							
			17	0 70 NC	mer			234				D. ETER		
							DATE STARTED  12/20/12  DATE COMPLETED  12/20/12							
OVERBURDEN THICKNESS 50 FT +						DEPTH	GROUND	WATER	ENCOUNTER	nd 50	rfact	د		
DEPTH DRILLED INTO ROCK NA							DEPTH 1	O WATER	RAND	ELAPSED TIM	E AFTER DE	RILLING C	COMPLET	ED
TOTAL DI	EPTH OF H	SC SC	_							EASUREMEN				
GEOTEC	HNICAL SAM	//PLES		DISTURBED	UNDI	STURBE	D CO	RED INTE	RVAL/C	ORE BOX NO	)(S).			
SAMPLES	AMPLES FOR CHEMICAL ANALYSIS VOCS METALS					OTH	ER	0	THER	OTHER		TOTAL C	ORE	
	3 3				nef		A	spertor 1	PCBL	terbyra	BECOVE	RY		
	POSITION OF HOLE BACKFILLED MONITORING WELL				OTH		SIGN	ATURE OF IN	SPECTOR	110/	1			
Aban	sendoned Benjorite Temp				)			6	AUNI AUNI	flui				
ELEV.	DEPTH	DES		ION OF MATERIA	ALS	SCRE	ELD ENING ULTS	GEOT SAMPL CORE B	.E OR	ANALYTICAL SAMPLE NO.	GRAPHIC		REMARK	3
	4.0	Sand and f Soft, I Stain	ine of the	k brown silty San h coarse Randed no odor  e Gray S id, fine arse san ise, mon Stain	d, five sand gravel, no	PP . Z.	0	6 10 12	24 <sup>1</sup>	NW-92		084		
	8.0	oder	No	Stain	Ing			19						

			DRILLING LOG						
PROJEC	T -25	and 6th Avenue INSI	PECTOR J. K	lahler+	v		SHEET 2 OF SHEETS		
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERIALS	FIELD SCREENING RESULTS	GEOTECH SAMPLE OR CORE BOX NO.	ANALYTICAL SAMPLE ID.	GRAPHIC	REMARKS		
	12.0	SC-Olivegray 574/1 Gravely 5.1ty Clayey Sand, fine sandwith Clay and trave coarse angular gravel and solt Local moist, no odos, no Staining, massive	PPM 1,0	5 5 10			0859		
	16.0	SP-Brown 10485/3 Gravely Sand, fine Sand with Subscended fine to medium gravel Medium dense, moiste, no odor, no staining	1.6	6 7 22" 11 15			0910		
	20.0 —	SC-clivegray 54 4/1 five sand withclay Massive, moist, no odog no staining	Zi3	3 7 23" 9 11			0922		
	24.0 —	SC- 6live gray Su'y/, fire sand with clay, Massive, moist, no' Obor, no staining	2,4	S S 24" H	NW-\$2- 25		0933		

			DRILLING	LOG		HOLE NO. NW-Ø2		
PROJEC	T-25	and 6th Ave INS	PECTOR J.K	the	14			SHEET 3 OF 4 SHEETS
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERIALS	FIELD SCREENING RESULTS	GE( SAM	OTECH IPLE OR BOX NO.	ANALYTICAL SAMPLE ID.	GRAPHIC	REMARKS
	30 -	sc-olive gray 5,4/1 fine sand with clay massive, moist, no odor, no staining	PPM 317	10 11 12	24"			50941 Soft-pardriller
	37 -=	SC-Darkgray N3, fine Sand with Clay and trace coarse rounded gravel to 1 1/2 mon moist, no appearent odor, no applicant staining		57	1211			0957 I'IL' gravel in Shoe
	38 =	no appearent odor, no appearent staining	36	991013117	Z3 <sup>(1</sup>	NW-82 -37		1004
	40 — — — — 42 — —	SP-Brown 104R 5/3 Medium to coarse sub angular sand, wet	<b>\$</b> ,3	4000	23"			1021
	44		5.2	2 4	24/24			1047

PROJECT:

PRILLING LOG  PROJECT -25 and 6th Ave INSPECTOR J. KALLWH  ELEY, DEPTH DESCRIPTION OF MATERIALS SPEED RESULTS CORE BOX NO.  WAS SPEED ANALYTICAL GRAPHIC REMARKS  SPEED SOUND 109 R 5/3, PP M 13 24/24  Wedum to coarse Subany view Sand, wet 35/3;  We start of the star	ELEV. DEPTH DESCRIPTION OF MATERIALS SCHEENING SCHEENING SAMPLE ID. GRAPHIC REMARKS  HIND SP. Brown 109 K 5/3, PP M 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  REMARKS  FROM 13 24 1/24  SO SUBJECT SAMPLE ID. GRAPHIC REMARKS  REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GRAPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 13 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 14 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 14 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARKS  FROM 14 24 1/24  SUBJECT SAMPLE ID. GROPHIC REMARK
ELEV THE DESCRIPTION OF MATERIALS  FIELD SCREENING SAMPLE OF SAMPL	ELEN IN DESCRIPTION OF MATERIALS  SCREENING SAMPLE ID.
50   115   75   24"   35/3"   Heaving Sand	50   115   75   1105
	62 =

		-		DRILLING	G L	OG				HOLE F-	NO. -16-EJ-SE-01
COMPAN	IY NAME	RMC Consults	ants, Wheat Ridge,	DRILLIN		BCONTRACTO	R	es Golde	CO	SHEE	
PROJEC			acement Haz. Mat.		Site Services, 6 older, CO OF SHEETS  LOCATION  6 <sup>th</sup> Ave. and I-25/6 <sup>th</sup> Ave/BNSF Railroad						
	FDRILLER	F2 51 5		investigation	MAN			ESIGANATION C		J. 14111	
	ID TYPES O		CKHOFF	0 11/1		E LOCATION					
	EQUIPMEN	IT.	140-16. ha	nmer	-	ON-RAA	IP	I-25 X	ORTH -	to EA	IST-BND USG
			2" Split	Spoors	SUF	RFACE ELEVA	TION				
					DAT	E STARTED	12	0/2012	DATE COM		20/2012
OVERBU	RDEN THIC	KNESS	48 Ft		DEF	TH GROUNDY		ER ENCOUNTER	RED 8	F+	h
DEPTH D	RILLED INT		DEP	TH TO WATER	RAN	D ELAPSED TIM		RILLING	COMPLETED		
TOTAL D	EPTH OF H	OLE (	18.9 Ft		OTHER WATER LEVEL MEASUREMENTS						
GEOTEC	HNICAL SAI	MPLES	DISTURBED	UNDISTURBE	BED CORED INTERVAL/CORE BOX NO(S).						
						OTHER					
SAMPLE	1-Asbestos 3						2	-Pesticides	OTHER 2-11		TOTAL CORE RECOVERY
DISPOSI	DISPOSITION OF HOLE BACKFILLED MONITORING WEL							NATURE OF IN	- AS	Diciae	1
5.6. 56.			BENTONITE	WONTOKING WEEK		OTHER					
ELEV.			CATPS			FIELD			BLOW		
ft MSL	DEPTH ft	DESCR	RIPTION OF MATERIAL	.S		SCREENING RESULTS	3	ANALYTICAL SAMPLE NO.	COUNTS		REMARKS
	=	Aspha	1+			RAEF	DID			Aug	er through
	=	SP -	Light h	rown Ver	-1			SE-01			halt.
	Ξ	F. <	Light be and, w/ subround	(-1.01	/			5E-01 -(0-2)	)	adle	ted 0.4-2.
	2 —	TIME O	and, wy	3/0/2	1	1,000				The State of the S	n sides
	_	1-m-c	5 Ubround	granel,	acy	1 " PPI	77			A	boreholes
		loose (	Fill).								
	Ξ										
	4 —	M2-1	Light bro	5:1+	L				4	-	
		S 20			1000			-	7		
	_	" do	clay 5%	ol. grai	re [	77.			9		
	6 =	MORETA	tely cohe	sive, da	mp	2.20	Pn	1	9		
	=	to mo	157						' '		
	=										
	=										
	8 =										
	_										
		01 - 1			,						
		<b>a</b>	orayish br						4		
	10 -	Clay	, cohesiv	re mod.	ple	st. cita	,		6		

	F-16-EJ-SE-01						
PROJECT A	ot venue Brid	ge Replacement Haz. Mat. Inv.	INSPECTOR Josep	ph Mastromarch	i		SHEET Z OF 4 SHEETS
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERI	ALS	FIELD SCREENING RESULTS	ANALYTICAL SAMPLE NO.	BLOW COUNTS	REMARKS
	10 =	CL-Grayish-bro Silty Clay mode Cohesive, Lamp	erate plast	icity,		8 11	
	14	Silty Clay, mor high plasticity, ML - Light brown grayish brown 5; trace clay, sof easily.	dense, desto	amp.	_	346772109	W/ V/tra- Fine caliche Crystals (2015mm)
	22-	ML - Grayish br Clayery Silt, w Fine gravel, slight Crumbles w/ modi Finger pressure,	15% thy cohes; damp.	įą.		87511	2045 hrs.
	26	ML-Grayish bros Silt, w/ 5% Fin moderately cohesing	e grand dan.p.	3.2 ppm	SE-01- (24-26)	47110	2/08 his

	DRILLING LOG  HOLE NO. F-16-EJ-SE-01  INSPECTOR  SHEET 7										
PROJE A	cT venue Brid	lge Replacement Haz. Mat. Inv. INSPECTOR Jos	eph Mastromarch	ni		SHEET 3 OF 4 SHEETS					
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERIALS	FIELD SCREENING RESULTS	ANALYTICAL SAMPLE NO.	BLOW	REMARKS					
	34 34 35	ML - Dark brown Silt,  trace clay, appears organice Soft, who witra-Fine  Sulfide particles.  OH - Organic Clay, who trace silt, dense, eohes, highly plastic.  OH - Organic Silt, trace clay, very dark brownis, gray; soft, damp, who witra-Fine sulfide partices  SP - Light brown med Sand, 10% coarse sand wet.	1.3pp 1.8ppm	m	302201122 0228 1124	Color is Very dark brown Water encountered @ 38'Ft					

			DRILLING	LOG			HOLE NO. F-16-EJ-SE-01
PROJECT A	venue Brid	ge Replacement Haz. Mat. Inv.	INSPECTOR Jose	ph Mastromarch	ni		SHEET 4 OF 4 SHEETS
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERI	ALS	FIELD SCREENING RESULTS	ANALYTICAL SAMPLE NO.	BLOW COUNTS	REMARKS
		Assumed medium Sa as above.  Bedrock - Very dar Lighty weathered mus Crumbles easily w/Fi dissaggregated m silt, trace clay.		(* )**		17 50/0,4.	Spoon refusal  C 48.9 ft  E, O, B,

					DRII	LLING	LOC	}				HOLE I	10. <u>5 u</u>	1-01	
COMPAN		ONSULTA	NTS	S, INC., -Wheat R	idge, CO	DRILLING	G SUBCO	S HC	OR Se v	VILLES		SHEET		SHEETS	
PROJECT	-			5 Avenue				16-1		504					
NAME OF	DRILLER	Josh,	10	Eckhoff			MANUF	ACTURER	'S DES	SIGANATION C	F DRILL C	ME 7	25		
SIZES AN	ID TYPES O	F	4	"ID HSF	8		HOLE LOCATION N39,725351 ω 105,013432								
		·		10-16 Ham	iner		SURFA	CE ELEVA				<u> </u>			
				70 10 700				213			DATE COM	DIETED			ļ
		-					12	TARTED		2	12/2	26/20	12		
OVERBU	RDEN THIC	KNESS	23.	5 Feet			13	1.5 to	et b	RENCOUNTER	ound a	Surfa	ue.		
DEPTH DRILLED INTO ROCK 1.5 Feet						DEPTH	TO WATE	RAND	ELAPSED TIM	end 50	RILLING	COMPLE	TED		
TOTAL D	EPTH OF H	OLE	25	Feet						MEASUREMEN					Ī
GEOTECHNICAL SAMPLES DISTURBED UNDISTURE						D CO	RED INTE	RVAL/	CORE BOX NO	D(S)					
SAMPLES		J   A JICAL ANAL	YSIS	VOCs	META	_	ОТН			THER	OTHER	₹ .	TOTAL		
				3	3		met 3	داه	4	hestos	Pesticides		RECOV	ERY %	
	TION OF HO			BACKFILLED	MONITORI	NG WELL		IER	SIGN	ATURE OF IN	The Contract of the Contract o	1/	7		İ
Aba	ndone	7		Benton He Chips (4)	Temp				1	tapir	mi	W			
ELEV.	DEPTH	DI	ESCRI	IPTION OF MATERIA	LS	SCRE	ELD ENING BULTS	GEOT SAMPI CORE B	E OR	ANALYTICAL SAMPLE NO.	GRAPHIC		REMAR	(S	
	4.0	grave with grave no od  SM-I	1000 Sal	begray 50  Silty San  e subanquil  the and fin  Massive, Dr.  No stan  A Brown ic  nd, fine to  subanquia  It, loose,  ichy, no oc	d, five our Sand e any via y, Haid, virg	5 6	7	7121114 4334	Z0"	SW-01-0		08			
	10.0	Sm - Sand Sultan Imposst	G FI	ay NS grained -coather school of Find School of Find School of Find School of School o	rely 5. ly and wy cogravel costant	4.		3	Z"			50f			

			DRILLING	LOG			HOLE NO.	7
PROJEC	T-25	T and 6th Avenue INS		Kahlert			SHEET Z OF Z SHEETS	
ELEV. ft MSL	DEPTH ft	DESCRIPTION OF MATERIALS	Field somening Pasults	Blow Coun Recove		DRILL ROD	REMARKS	
	10		318	<ul><li>Z</li><li>Z</li><li>Z</li><li>Z</li><li>Z</li><li>Z</li><li>Z</li><li>Z</li></ul>	SW-01-11		0819 0824	
	ч	SP-Brown 10 yr 5/3, Gravely poorly-graded Sand, Medium +0 coarse sib rounded Sand with fines brounded gravel, Loose, wet, no Staining, no odors	4.8	Z 4 3 22 4	u .		water at 13,5' below ground Surface	
	20		<b>'</b> 1.'4	4 5 21 11 26	1"		G837	
	24	Claystone-Dark Gray N3 Dry, Blocky, no odor, no staining	4.8	u( so/3"			0850	

Project Name: F-25 and 6+4 Avenue Project No.: E17,023,154  Site Name: F-16-E) North West Field Crew: JK  Sampling Date: 12/20/2012 Weather Conditions: 45 F, W wind 10 mph, Few clouds  Monitoring Instruments: YS1 6920 Readings: 0,5 ppm TOC: 1,0 ppm  Analytical Instruments: pH: YS1 6920 Specific Conductivity: YS1 6920  Temp: YS1 6920 ORP: YS1 6920  D.O: YS1 6920 ORP: YS1 6920  Well ID No.: NW-02 Purging Equipment: 55 Gress of 5 mers ble  Type of Well: 2 PVC temporary Monttow CASING VOLUME CALCULATION FOR 2" WELL:  Casing Stickup: Not what well (TD(ft) - DTW(ft)) x0.16 gal/ft = 1 casing volume 2" (gallons)  Static Water Level: Ho 62 Bq 5 (TD(ft) - DTW(ft)) x0.65 gal/ft = 1 casing volume 4" (gallons)  Well Depth/Diameter: 50 bq s / 2" (50 - 40) 0, 16 = 16 gallons									
Time	Casing	Gallons	Dissolved	ORP	Temp	pН	Conductivity	Turbidity	Water Level
1124	Volumes	Removed	Oxygen (mg/l)	(mV)	(°C)		m5/cm	(NTUs)	40.02
1138	Liz	ligurg at	0.50	14.4	16.44	6,97	1.33)	980	1000
1146	3,5	5.55	0.57	83,4	16.01	7,4	1.325	1215	·
1149	1149 4.3 6.93 0.27 70,4 17,07 6,83 1,321 1053 -								
1151	1151 4.9 7.8 0.03 62.4 17.03 6.83 1.316 1215.7								
	1194 5.8 9.25 0.04 57.6 17.14 6.83 1.311 1215 70.12								
1155 Colbect Sample NW-02-GW									
-									
Depth to Water after purging:Yield of Well: L - M (H)  Sampling Equipment: Solution Depth of Filtration Priltration? YES / NO Filtration Method: NIA  Sample Chemistry: pH (2.83 Temp (°C) 17.14 Specific Conductivity 1.311 Turbidity 1215 ORP 57.6 DO 0.04  Analysis to be performed and Number of Containers:  VOCs SVOCs BTEX SO4 Alkalinity Methane Nitrate/Nitrite PCBs/Pesticides RCRA Metals Comments: TSS (x1): 0.4 and Greene (x2); (37055 Montal Besta (x1) NITRATED AND GREENE (x2); (37055 Montal Besta (x1) NITRATED AND GREENE (x2); (37055 Montal Besta (x1)									
Sampler Signature(s):  G: /forms/gwsample.doc									

Project Name: I-25 and 6th Avenue	Project No.: 612.023, 154
Site Name: F-16-DU Northeast	Field Crew:
Sampling Date: 12/26/2012	_Weather Conditions: 25°F, 7 mph From N, Partly Cloudy
Monitoring Instruments: MINI RAE 3000	_Readings:TOC:
Analytical Instruments: pH: YSI 6920	_Specific Conductivity: <u>\/5\6920</u>
Temp: Y51 6920	Turbidity: YSI 6920
D.O: VSI 6920	ORP: YSI 6920
Well ID No.: NE-02	Purging Equipment: 55 Gresub Sub mersuble
Type of Well: Temporary Monitoring	_CASING VOLUME CALCULATION FOR 2" WELL:
Casing Stickup: not measured	_(TD(ft) - DTW(ft)) x0.16 gal/ft = 1 casing volume 2" (gallons)
Static Water Level: 12, 95 bgs	_(TD(ft) - DTW(ft)) x0.65 gal/ft = 1 casing volume 4" (gallons)
Well Depth/Diameter: 25,0' bys 2" PVC	- (25-12,95) x0,16 = 1.9

Time	Casing Volumes	Gallons Removed	Dissolved Oxygen (mg/l)	ORP (mV)	Temp (°C)	pН	Conductivity	Turbidity (NTUs)	Fe+2 WL'Bys
1242	Begin	Duraina	4 2,25	4/mm					12,95
1247	1.6	13	0.47	28.1	1635	7.15	1,259	1208	
1252		5.9	0.17	21.0	16,21	6.90	1.251	1206	
1257	4.7	8.9	0,19	18,2	16,65	6,80	18,251	573	12,98
1302	6.3	11.9	0.15	14,5	6.07	6,73	1,250	311	12.98
1305		soundle N	E-\$2-61	S					
								9,	

Depth to Water after purging: 12.98 Yield of Well: L - M -H
Sampling Equipment: 55 Greas Submers Selection Submers Selection Submers Selection Sel
Sampler Signature(s):  C. Hempilawan miles dec

Site Na Samplin Monitor Analytic Well ID Type of Casing Static V	me: F - Ing Date: ing Instrume cal Instrume  No.: Well: Z f Stickup: Vater Level	ents: Mini ents: pH: Temp: D.O:	Rae 3000 YSI 6920 YSI 6920 YSI 6920 Monttoring Scred	Field Wea Read Spec Turb ORF Purg CAS (TD(t	ther Condidings: cific Condudidity: cific Equipm ING VOLU cit) - DTW(ft)	tions: 14° ctivity: Y ctivity: Y 692 ment: 55 G JME CALC ) x0.16 gal/f		DR 2" WELlolume 4" (ga	L: allons)
Time	Casing	Gallons	Dissolved	ORP (m)/)	Temp	рН	Conductivity	Turbidity (NTUs)	Fe+2
0920 0925 0930 0940 0945	3.5 5.3	Removed  3.2  6.3  9.5  12.7  Seemple	Oxygen (mg/l)  2 14 L/ 1,07 1,28 1,31 1,32 1,32 (b)	(mV) min 117.5 115.4 112.6 111.8	(°C) 16,57 16,86 14,86 16,88	(4.79 (4.75 (4.73 (4.73	1,311 1,297 1,295 1,291	1211 1213 1207 934	13,60' +\frac{13}{2},13\Sq
Samplin Filtration Sample Analysis VOCs _ Nitrate/I Comme	eg Equipmen  ? (ES) / NO  Chemistry:    s to be perfor  SVO	Filtration I  Filtration I  Filtration I  Filtration I  Filtration I  FILTRATION I  FILTATION I  FILTRATION I  FIL	Method: 0,45  Method: 0,45  Inp (°C) 16.88  Inber of Containe  EX SO  Pesticides  and Grew	Specific Coers:	nductivity /	Meth	ane	Nitrate/Nitrit	

Project Na	me: LTU	AVE BRIDE	E REPLACEMEN	VT F	Project No.:			
	: I-2	1			ield Crew			
	Date	11					of clea	_
	100		Lae 3000 P1	100		TO		
Analytical I			Y5I			ductivity_/		
,		Temp:	VSI		urbidity:			
		D.O:	VSI.			151		
Well ID No	o.: F-/6	6-EJ-51	E-01 / Ten	_		pment: Ge	0-506	
	107111		monitoring	well			CULATION	
Casing Sti		-		(TD(f			casing volume	
Static Water	8 1	36.	7 bas		E	1000		100
		211	1484		10 x.	17 -1	, Igal	(PVC)
			/ .		10'x,	45 = 6	19sl (	(auger)
Time	Casing	Gallons	Diss. Oxygen	ORP	Temp	рН	Cond.	Turbidity
2222	Volumes	Removed	(mg/l)	(mV)	(°C)		EMS/cm	(NTUs)
7277	Bega	- proge	1 5a	103	16.6	729	1.262	1-70
2233	3/08	5.0	0.77	74.7	17.4	601	1244	1218
2239	0/41	8.0	0,99	64.0	17.4	6187	1,244	1218
2245	5.9/1.5	10.0	1.2	629	17.5	6.83	1.241	630
2250	# 2/21	12.0	1.18	63.9	47.5	6,51	1,243	369
2300	8.2/21	14.0	1.21	4.5	17.5	6,50	1,241	303
2304	Cour	17.0	1.25	671	123	6.79	1-237	221
		1110		14		w. / (	1-231	2-1
								744
Depth to water after purging:Yield of Well: L - M - H								
Sampling Equipment: Collected from discharge tobing Filtration? YES / NO Filtration Method: 45 micron disposable high-vol. Filter								
Filtration? YES/NO Filtration Method 45 micron disposable high-vol. Filter								
Sample Chemistry: pH 6.8 Temp. 17.3 Cond. 1.237 Turbidity 221 D.O. 1. 25 ORP 67.1								
Analysis to be performed and Number of Containers:  VOC SVOC GRO DRO Metals/_ PCB/Pest Oil/Grease								
voc 3	SVOC_	GRO	DRO _	Me	etals/_	_ PCB/Pest	- 07/	brease_
	DHI	TSS_L	Gross a	dotal.	beta L			
Comments	s:			/ /				
_								9
	9							
		1	1	11.	1	1		
Sample Sig	gnature(s):		Jan v	/ Jay	en	nek		

### **ATTACHMENT 2**

### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37285-1 Client Project/Site: U.S.6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

onna Kydeerg

Attn: Jason L Kahlert

Authorized for release by: 1/22/2013 8:51:39 AM

Donna Rydberg Project Manager II

donna.rydberg@testamericainc.com



····· LINKS ·····

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

### **Analytical Data Package Prepared For**

### TestAmerica Denver

### Radiochemical Analysis By

### **TestAmerica**

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains 17 Pages

Report No.: 54260

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order	r) Lot-Sa No.	Work Order	Report DB ID	Batch No.
46237		NW-02-GW(280-37285-2)	J2L280427-1	MXQTD1AC	9MXQTD10	3002045
		NW-02-GW(280-37285-2)	J2L280427-1	MXQTD1AA	9MXQTD10	3002047



### Certificate of Analysis

January 15, 2013

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002

Attention: Donna Rydberg

Date Received by Lab Sample Number/Matrix December 26, 2012 One (1) Water

SDG Number

46237

Project

RMC Consultants / US 6 at I-25

Project Number

280-37285-1

### CASE NARRATIVE

### I. Introduction

On December 26, 2012, one water sample was received at the TestAmerica Richland laboratory for radiochemical analysis. Upon receipt, the sample was assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package. The sample was assigned to Lot Number J2L280427.

### II. Sample Receipt

The sample was received in good condition and no anomalies were noted during check-in.

### III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Gas Proportional Counting

Gross Alpha by method RL-GPC-001 Gross Beta by method RL-GPC-001

### TestAmerica Denver January 15, 2013

### IV. **Quality Control**

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

### V. Comments

### **Gas Proportional Counting**

Gross Alpha by method RL-GPC-001:

The achieved MDA for sample exceeds the CRDL due to the reduced aliquot size based on weight screens. The sample was counted for the longest time appropriate for the method. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within acceptance limits.

### Gross Beta by method RL-GPC-001:

The achieved MDA for sample exceeds the CRDL due to the reduced aliquot size based on weight screens. The sample was counted for the longest time appropriate for the method. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Erika Jordan

Eicha Godan 2013.01.18

14:32:52 -08'00'

Erika Jordan

Customer Service Manager

**Drinking Water Method Cross References** 

And Assistant Commence of the	and an area in the control of the co	an la management de contraction de c
	DRINKING WATER ASTM N	METHOD CROSS REFERENCES
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No.
EPA 901.1	Cs-134, J-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation	1) RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226	) RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005
	等等处于1000年的1000年的,在 在各种类型的原则,使用于1000年的中国特别的特别的企业的企业的企业的企业的企业的企业的企业的企业的企业企业企业企业企业企业企业	中的时间,1975年1979年1979年1979年1979年1979年1979年1979年
1946 () бек байын байын такке байын байын байын жолы болын жанын шашын калып калып калып үшүү бүлүүдүү көн күнө Меке байын байын байын байын байын байын байын байын байын байын байын байын байын байын байын байын байын байы		**************************************

### Results in this report relate only to the sample(s) analyzed.

### **Uncertainty Estimation**

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants \* f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u<sub>i</sub>) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u<sub>c</sub>) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

**Report Definitions** 

	Report Definitions
Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13,30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s)  u <sub>c</sub> _Combined  Uncertainty.	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, $u_c$ the combined uncertainty. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Le	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yid * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot,
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt(TPUs <sup>2</sup> + TPUd <sup>2</sup> )] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt,
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.
}	

### Sample Results Summary

TestAmerica TARL
Ordered by Method, Batch No., Client Sample ID.

Report No.: 54260

**SDG No: 46237** 

Date: 15-Jan-13

Client Id Batch Work Order Parameter	Result +- Uncert	ainty ( 2s)	Qual	Units	Tracer Yleid	MDL	CRDL	RER2
3002045 RL-GPC-001 NW-02-GW(280-37285-2) MXQTD1AC ALPHA	159.0 +- 4	<del>1</del> 7.0		pCi/L	100%	31.4	3,0	
NW-02-GW(280-37285-2) DUP MXQTD1AD ALPHA	138.0 +- 4	12.0		pCi/L	100%	24.4	3.0	0.7
3002047 RL-GPC-001 231892-122012(280-37267-1) DUP MXQRX1AD BETA	5,11 +- :	3.1	U	pCl/L	100%	5.26	4.0	0.3
<b>NW-02-GW(280-37285-2)</b> MXQTD1AA BETA	88.9 +-	17.0	-	pCi/L	100%	17.0	4.0	7,0

### Date: 15-Jan-13

### QC Results Summary

### TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No.: 54260

SDG No.: 46240

Batch Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
RL-GPC-001							· · · · · · · · · · · · · · · · · · ·	
3002045 BLANK 0	QC,							
MXQ7A1AA	ALPHA	0.570 +- 0.44	U	pCi/L	100%			0.652
3002045 LCS,								
MXQ7A1AC	ALPHA	37.5 +- 8.6		pCi/L	100%	92%	-0.1	0.754
3002045 MATRIX	SPIKE, SE-01-GW(280-37307-4)			·				
MXQR91AD	ALPHA	311.0 +- 82.0		pCl/L	100%	101%	0.0	11.3
RL-GPC-001								
3002047 MATRIX	SPIKE, 227284-122012(280-3726)	7-2)						
MXQR31AD	BETA	283.0 +- 38.0		pCl/L	100%	98%	0.0	4.98
3002047 BLANK 0	QC,							
MXQ7D1AA	BETA	1,09 +- 1.0	υ	pCi/L	100%			1.79
3002047 LCS.				• "				
MXQ7D1AC	BETA	40.7 +- 5.7		pCl/L	100%	100%	0,0	1.84
No. of Results:	6			•				

- (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mde/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

SAMPLE RESULTS

Lab Name:	TestAmerica	SDG:	46237	Collection Date:	Collection Date: 12/20/2012 11:55:00 AM
Lot-Sample No.: J2L280427-1	J2L280427-1	Report No.: 54260	54260	Received Date:	Received Date: 12/26/2012 11:00:00 AM
Client Sample ID	Client Sample ID: NW-02-GW(280-37285-2)	COC No.:	280-165358.1	Matrix:	WATER
•	r			- Pro	Ordered by Client Sample ID, Batch No.

RL-GPC-001         Work Order:         MXQTD1AC         Report DB ID:         9MXQTD10         47.13 04:33 p         0.0122         GPC22B           159.0         31.0         47.0         31.4         pCi/L         100%         (5.1)         117/13 04:33 p         L           RL-GPC-001         Work Order:         MXQTD1AA         Report DB ID:         9MXQTD10         17/13 04:14 p         0.0256         GPC28C           88.9         13.0         17.0         PCI/L         100%         (5.2)         1/7/13 04:14 p         0.0256         GPC28C	Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc		Yield RstfMDL, CRDL(RL) RstfTotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
0 31.0 47.0 31.4 pCi/L 100% (5.1) 1/7/13 01:33 p 0.0122 14.2 3.0 (6.7) L L Work Order: MXQTD1AA Report DB ID: 9MXQTD10 13.0 17.0 pCi/L 100% (5.2) 1/7/13 01:14 p 0.0256 8.2 4.0 (10.3)	占	PC-001			Work Order:	MXQTD1AC		IL DB ID: 9MX	QTD10				
Work Order:       MXQTD1AA       Report DB ID:       9MXQTD10       L         13.0       17.0       17.0       pCVL       100%       (5.2)       1/7/13 01:14 p       0.0256         8.2       4.0       (70.3)       L		159.0		31.0	47.0	31.4	pCi/L	100%	(5.1)	1/7/13 01:33 p		0.0122	GPC22B
Work Order:         MXXID1AA         Report DB ID:         9MXXID10           13.0         17.0         17.0         pCVL         100%         (5.2)         1/7/13 01:14 p         0.0256           8.2         4.0         (10.3)         L							14.2	3.0	(6.7)			<b>_</b>	
13.0 17.0 pC//L 100% (5.2) 1/7/13 01:14 p 0.0256 8.2 4.0 (10.3) L	독	3PC-001			Work Order:	MXQTD1AA	Repo	# DB ID: 9MX	атрио			:	
4.0		88.9		13.0	17.0	17.0	pCi/L	100%	(5.2)	1/7/13 01:14 p		0.0256	GPC28C
							8.2	4.0	(10.3)			_	

Comments: No. of Results: 2 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume. U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/MdI, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Date: 15-Jan-13

## DIIDI ICATE RESUI TS

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Lab Name:	TestAmerica	SDG;	46235	Collection Date:	12/20/2012 10:30:00 AM
Lot-Sample No.: J2L280423-1	J2L280423-1	Report No.:	54260	Received Date:	12/26/2012 11:00:00 AM
Client Sample ID:	Client Sample ID: 231892-122012(280-37267-1) DUP	COC No.:	280-165322.1	Matrix	WATER

:		5			,    -							
ple No.:	ple No.: J2L280423-1	3-1			Report No.:	.: 54260			Received Date:	12/26/2012 11:00:00 AM	2 11:00:00	AM
ample ID:	231892-1;	22012(;	ample ID: 231892-122012(280-37267-1) DUP	1) DUP	COC No. :		280-165322.1		Matrix:	WATER		
	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert( 2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa / Size	Aliquot Size	Primary Detector
RL-G	RL-GPC-001			Work Order: MXQRX1AD	XQRX1AD	Report D	Report DB ID: MXQRX1DR	RX1DR	Orig Sa DB ID: 9MXQRX10	RX10		
	5,11	$\neg$	1.	3.1	5.26	pCi/L	100%	26.0	1/7/13 01:14 p		0.0751	GPC26B
	5.85		RER2 0.3	0.3	•	4.0		(3.3)				

Comments: No. of Results: 1

BETA

Batch: 3002047 Parameter

CT estAmerica
CyptSTLRchDupV5.

RER2 - Replicate Error Ratio = (S-D)/[sgrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Page \$0 of 20

MDCMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

RER2 - Replicate Exror Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

OrptSTLRchDupV5. L2.23 A2002

7 VTestAmerica

### FORM II

Date: 15-Jan-13

## DUPLICATE RESULTS

Collection Date: 12/20/2012 11:55:00 AM 54260 46237 Report No.: SDG

Received Date:

12/26/2012 11:00:00 AM

WATER

**Matrix:** 

280-165358.1

Client Sample ID: NW-02-GW(280-37285-2) DUP

Lot-Sample No.: J2L280427-1

TestAmerica

Lab Name:

TestAmerica Laboratories, Inc.

COC No.:

MDL, Action Lev

Uncert(2s)

Count Error (2 s)

Qual

Result, Orig Rst

RL-GPC-001

Batch: 3002045 Parameter

ALPHA

Rst/MDL, Rst/TotUcert

Primary Detector

Aliquot Size

Total Sa Size

Analysis, Prep Date

GPC22C

0.0126

Orig Sa DB ID: 9MXQTD10

1/7/13 01:33 p

(5.7)(6.6)

100%

pCi/L 3.0

24.4

**RER2 0.7** 

159.0 138.0

Comments:

No. of Results:

Page 101 of 20

27.0

Work Order: MXQTD1AD

Report DB (D: MXQTD1DR

Rpt Unit, CRDL

Yield

Date: 15-Jan-13

**BLANK RESULTS** 

46240 SDG:

Report No.: 54260

WATER **Matrix:** 

TestAmerica

Lab Name:

Report DB ID: MXQ7A1AB Rpt Unit, CRDL pCif Work Order: MXQ7A1AA 0.652 MDL, Lo Uncert(2s) Total 4. Error (2 s) Count 0.42 Qual  $\supset$ Result RL-GPC-001 0.570

3.0 0.287

Report DB ID: MXQ7D1AB 100% PCi/L 4.0 Work Order: MXQ7D1AA 1.79 0.861

0:

 $\supset$ 

1.09

BETA

RL-GPC-001

Batch: 3002047

Соттепть:

No. of Results: 2

(2.3 0.61

1/7/13 04:55 p

GPC26B

GPC23B

0.1988

1/7/13 01:33 p

(2.6)

0.87

Primary Detector

Aliquot Size

Total Sa Size

Analysis, Prep Date

Rst/MDL, Rst/TotUcert

0.1998

Batch: 3002045

Parameter

ALPHA

MDCIMDA.Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamms scan software.

Date: 15-Jan-13

LCS RESULTS

**SDG:** 46240

Report No.: 54260

Lab Name: TestAmerica Matrix: WATER

Parameter	Resuit	Quai	Count Total Result Qual Error (2s) Uncert(2s)	Total Uncert(2 s)	Report MDL Unit		Yield Expected		Expected Recovery, Uncert Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
<b>Batch:</b> 3002045 ALPHA	RL-GPC-001 37.5		2.1	Work Order: 8.6	MXQ7A1AC 0.754 pCl/l.	Report DB ID:         MXQ7A1CS           100%         40.6           Rec Limits:         70         1	MXQ7A1C3 40.6 70	xq7A1Cs 40.6 0.42 3 130	92%	1/7/13 01:33 p	0.2002 L	GРС23С
<b>Batch:</b> 3002047 BETA	RL-GPC-001 40.7		2.3	Work Order: 5.7	MXQ7D1AC 1.84 pCi/L	Report DB ID:         MXQ7D1CS           100%         40.8           Rec Limits:         70         1	MXQ7D1C4 40.8 70	s 1.6 130	100%	177/13 04:55 p	0.2007 L	GPC26C

No. of Results: 2 Comments:

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

7/7 Contraction Co

Date: 15-Jan-13

## MATRIX SPIKE RESULTS

SDG: TestAmerica Lab Name:

46235

Lot-Sample No.: J2L280423-2, 227284-122012(280-37267-2)

Report No.: 54260

Matrix: WATER

Analy Method, Primary Detector

Aliquot Síze

Analysis, Prep Date

Expected, Uncert

Rec-overy

Yield

Rpt Unit, CRDL

MDCIMDA

Uncert(2 s)

Count Qual Error (2 s)

SpikeResult, Orig Rst

RLGPC-001 GPC26D

0.078

1/7/13 01:14 p

288.0 11.0

98.33%

pCi/L

4.98

38.0

4.0

283.0 3.71

BETA

Work Order: MXQR31AD

Batch: 3002047

Parameter

9MXQR310

Orig Sa DB ID: 100%

Report DB ID: MXQR31DW

Number of Results:

Comments:

- Replicate Error Ratio = (\$-D)/[sqrt[sq(TPUs)+sq(TPUd))] as defined by ICPT BOA. - (Result/Expected)-1 as defined by ANSI N13.30. RER Bias

VT STestAmerica SprtSTLRchMs SV5.2.23 A2002

Date: 15-Jan-13

# MATRIX SPIKE RESULTS

46236

SDG:

Report No.: 54260

Lot-Sample No.: J2L280426-1, SE-01-GW(280-37307-4)

TestAmerica

Lab Name:

Matrix: WATER

Analy Method, Primary Detector		RL-GPC-001	GPC22A
Aliquot Size		0.0265	J
Analysis, Prep Date		1/7/13 01:33 p	
Expected, Uncert		306.0	3.2
Rec- overy	9MXQR910	101.47%	
Yield	Orig Sa DB ID:	100%	
Rpt Unit, CRDL	_	pCi/L	
МРСІМБА	MXQR91DW	11.3	
Total Uncert(2 s)	Report DB ID:	82.0	
Count Error (2 s)	JR91AD	23.0	
t, Qual	Work Order: MXQR91AD		
SpikeResult, Orig Rst		311.0	22.2
Parameter	Batch: 3002045	ALPHA	

Number of Results:

Comments:

- Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA - (Result/Expected)-1 as defined by ANSI N13.30. RER Bias

# Chain of Custody Record

	Sampler		rd de.	4:	Carrier Tracking No(s):	g No(s):	COC No:	
Client Information (Sub Contract Lab)			Rydb	Rydberg, Donna R			280-165358.1	
Client Contact Shipping/Recelving	Phone:		E-Mail donn	E-Mail: donna.rydberg@testamericainc.com	moo:		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.				Ā	Analysis Requested		Job#: 280-37285-1	
	Due Date Requested: 1/16/2013						Ķ	120
	TAT Requested (days);			'008 PC			A-HCL B-NaOH C-Zn Acelate	M - Hexane N - None O - AsNaO2
Srats, Zip: W/A, 99352				and the state of				- NEZO4S
Phone:  508-375-3131(Tel)	PO#				N-N1		F-MeOH G-Amchlor S H-Asorttic Acid T	X - N22S2SO3 S - H2SO4 L TSP Dodecabydrate
Email:	WO#.			all in			l-fœ J-DiWater	J-Acetone
Project Name: U.S.6 at I-25	Project#: 28009391						K-EDTA L-EDA	W - ph 4-6 Z - other (specify)
	#MOSS			Tal.			Offier:	
	<i>"</i>		Matrix (w-water, S-solid, O-wasterfoll,	иот (1851) Услу (1801) ГЭАЯТИОЭВП				
Sample John Transport Client ID (Lab ID)		ime G=grab)	BT=Tissue, A=Afr)				Spec	Special Instructions/Note:
NW-02-GW (280-37285-2)	حد	55 G	Water	×			NOKON	0
TSAL 250427								
305-4628n								
Du 1-22-13	*******							
			W-10-40					
JZLZ8042/								
Possible Hazard Identification				Sample Disposal (A f	Sample Disposa! ( A fee may be assessed if samples are retained longer than 1 month)  Return To Client  Ann	unples are retaine	tained longer than 1 mr. Arrhiva For	onth)
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:	Requirements:			
Empty Kit Relinquished by:	Date			Time:	Method of	Method of Shipment:		
Mars Grill	T) fr	Tave	Company	Received by:	Llucas	Date/Time:		Company
	Date/filme:4		Сотралу	Received by:	Velocived by: Velocity did not Sign for	Datestime	d on 13-ab	Company (512-28-12
	Date/Time:	:	Company	Received by: \	,	Date/Time:	<u>o_</u> .	Compânyê
Costock Spells Infract. Outlook Sea No.:				Cooler Temperature(s)	Cooler Temperature(s) "Cland Other Remarks:		7400 7400 7400 7400 7400 7400 7400 7400	

4955 Yarrow Street Arvada, CO 80002 Phone (303) 736-0100 Fax (303) 431-7171

. Test&merica Denver

### Sample Check-in List

Date/Time Received: 12-210-13	11/20 CB	A Screen Result:	(Airlock)	Receiving	Initia	nls[\$]	i I
Client: STUD							NA(B)
Lot Number: Sala8042							,-
Chain of Custody # 250-16	335 <b>8.1</b>						
Shipping Container ID:	NA	<b>}</b> >	ę				•
Samples received inside shipping conta	iner/cooler/box	Yes [ ] Continu	ie with 1	through 4	. <u>Initial</u> ap <u>r</u>	propriate resp	onse.
		,		unent to #			
1. Custody Seals on shipping con	tainer intact?	Yes 2 ] No[	]	No Custo	ody Seal [	]	
2. Custody Seals dated and signe	d?	Yes S ] No [	]	No Custo	dy Seal [	]	
3. Cooler temperature:	,	°C		NA B			
4. Vermiculite/packing materials	is	NA[]		r	a.		
Item 5 through 16 for samples. <u>Initial</u> a					Ţ		
5. Chain of Custody record prese	nt?	Yes ] No[	j				
6. Number of samples received (	Each sample may conta	in multiple bottles	):		.,	<del></del>	
7. Containers received: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	P				· · · · · · · · · · · · · · · · · · ·	<b>v</b>	
	,						
8. Sample holding times exceede	d?	NA[]	Yes [	1	П € ВОИ		
9. Samples have:	ſ	te hamid lake	1		·		
custody seals	9	hazard label appropriate		abels			
10. Matrix:A (FLT, Wipe, Solid, So	5H)	b Taxaaa					
S (Air, Niosh 7400)	,,,,	I (Water) T (Biologic	al, Ni-63	)			
11. Samples:		are leaking					
are broken Other		have air but	bbles (Or	aly for sar	nples requir	ing no head	space)
12. Sample pH appropriate for ana	alysis requested	Yes [ ] No [	1 N	A [ ]	12727		
(If acidification is necessary, the	n document sample ID, in	itial pH, amount of H	INO <sub>3</sub> adde	ed and pH	after addition	on table over	leaf)
RPL ID # of preservative used	: NA						
13. Were any anomalies identified	- "	Yes [	] No	<b>&gt;</b> 1			
14. Description of anomalies (incl	udo sample numbers): l	NAMP		MANA B		,	
	The state of the s				· · · · · · · · · · · · · · · · · · ·		

LS-023, Rev. 14, 06/11

See over for additional information.

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### **Login Sample Receipt Checklist**

Client: RMC Consultants Inc Job Number: 280-37285-1

List Source: TestAmerica Denver

Login Number: 37285

List Number: 1

Creator: Underwood, Tim

Question Answer Comment Radioactivity wasn't checked or is </= background as measured by a survey True The cooler's custody seal, if present, is intact. True Sample custody seals, if present, are intact. True The cooler or samples do not appear to have been compromised or True tampered with. True Samples were received on ice. Cooler Temperature is acceptable. True Cooler Temperature is recorded. True COC is present. True COC is filled out in ink and legible. True COC is filled out with all pertinent information. True Is the Field Sampler's name present on COC? True There are no discrepancies between the containers received and the COC. N/A Refer to Job Narrative for details. Samples are received within Holding Time. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True N/A Sample Preservation Verified. There is sufficient vol. for all requested analyses, incl. any requested True MS/MSDs True Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). Multiphasic samples are not present. True True Samples do not require splitting or compositing. Residual Chlorine Checked. N/A

Time

Date

3. Received By

Date

12/20/12

Sampler ID \_

Temperature on Receipt .

Custody Record

Chain of

TAL-4124-280 (0508)

**TestAmerica** 

I LITTLE LEADER IN ENVIRONMENTAL TESTING Drinking Water? Yes □ No 🖟

Special Instructions/ Conditions of Receipt (A fee may be assessed if samples are retained longer than 1 month) Page 8/4/ 55005 X X X 2/02/02/21 Analysis (Attach list in more space is needed) メ Months メ 5808/ATC18/FILBO8 メメ メメ Archive For A) FHF (80106) Breo B QC Requirements (Specify) \oAn\ HOav Joson Kahlevt Honna Rydberg N Disposal By Lab Containers & Preservatives HOPN 3 Telephone Number (Area Code)/Fak Number SONH N Project Manager Clay de Muffay Carrier/Waypill Number

Hand Deliver Solution sərdur 5 T Betum To Client Sample Disposal 303 980 4161 × メ #oS **>** Matrix geq. snoənby × 4₽ N Other Vnknown 07.00 0433 1604 1155 Time 21 Days tileste 71/02/15 Zip Code 8003 3 ☐ Poison B Date 12285 WH8THAVE, UNITA ☐ 14 Days Sample I.D. No. and Description (Containers for each sample may be combined on one line) RMC Censultants, Inc Skin Irritant **S** 7 Days NW-02-(20) THE BUTTE Flammable NW-02-25 Nw-62-37 US 6 at I-25 Project Name and Location (State) Wheel Ridge 48 Hours E12,023,154 NW-62-0 Possible Hazard Identification Turn Around Time Required ☐ Non-Hazard 24 Hours

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Comments

3. Relinquished By



THE LEADER IN ENVIRONMENTAL TESTING

### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37285-2 Client Project/Site: U.S.6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

Attn: Jason L Kahlert

Authorized for release by:

1/8/2013 8:46:38 AM
Donna Rydberg

Project Manager II donna.rydberg@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-2

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#### **Case Narrative**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

Job ID: 280-37285-2

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

Client: RMC Consultants Inc.

Project: U.S.6 at I-25

Report Number: 280-37285-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

Samples were received at the Denver laboratory on December 20, 2012. The samples arrived in good condition, properly preserved and on ice. The temperature of the cooler upon receipt was 3.1°C.

The sample requiring Gross A/B was subbed to the TestAmerica Richland laboratory at 2800 George Washington Way, Richland WA 99352 for analysis. This sample was logged and will be reported under a separate job (280-37285-1). Data will not be found in this report.

The report for the Asbestos sample will be found at the back of this report.

#### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

The compound Cis 1,3-Dichloropropene (+28.1) was outside control limits in the continuing calibration verification (CCV) associated with batch 280-153976. This compound is not classified as a Calibration Check Compound (CCC) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. Due to the large number of analytes contained in the CCV, the laboratory's SOP allows for 3 DOD analytes to be outside limits of 20% but within 30%; therefore, the data have been reported.

Acetone and Bromoform were detected in method blank MB 280-153850/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged.

Several surrogate and spike recoveries were outside control limits in the MS and MSD samples associated with batch 280-153854. This MS/MSD batch was performed on a sample from another client and/or job. The associated LCS was in control and provides evidence that operating procedures were in control. No further action was required.

Carbon Disulfide and 2-Hexanone were detected in method blank MB 280-153984/1-A at levels that were above the method detection limits but below the reporting limits. The values should be considered estimates, and have been flagged "J". If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged.

Several spike recoveries were outside control limits in the MS and MSD samples associated with batch 280-153976. The associated LCS

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#### **Case Narrative**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

#### Job ID: 280-37285-2 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

was in control and provides evidence that operating procedures were in control. No further action was required.

No other difficulties were encountered during the VOC analyses.

All other quality control parameters were within the acceptance limits.

#### **VOLATILE ORGANIC COMPOUNDS (GC-MS) WATER**

Sample NW-02-GW (280-37285-2) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Methylene Chloride was detected in method blank MB 280-153993/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The MSD associated with batch 280-280-153993 demonstrated spike recoveries outside control limits for 2-Butanone and Toluene. The associated LCS was in control and provides evidence that operating procedures were in control. No further action was required.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS) WATER

Sample NW-02-GW (280-37285-2) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C.

Matrix spike samples were not requested and they were not performed in batch 280-153874 due to insufficient sample volume. The acceptable LCS and LCSD provide evidence of batch precision and accuracy.

No difficulties were encountered during the SVOC analysis.

All quality control parameters were within the acceptance limits.

#### **ORGANOCHLORINE PESTICIDES SOIL**

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for organochlorine pesticides in accordance with EPA SW-846 Method 8081A.

The MS and MSD samples associated with batch 280-154261 were analyzed at a dilution causing spike recoveries to be outside control limits for some compounds. The associated LCS was in control and provides evidence that operating procedures were in control.

No other difficulties were encountered during the pesticides analyses.

All other quality control parameters were within the acceptance limits.

#### POLYCHLORINATED BIPHENYLS (PCBS) SOIL

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082.

No difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

#### **CHLORINATED HERBICIDES SOILS**

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A.

Sample NW-02-O was analyzed at a dilution to protect the integrity of the instrument due to the nature of the sample matrix (the extract was

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Job ID: 280-37285-2 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

dark yellow/brown in color). The reporting limits were raised accordingly.

The surrogate recovery method blank MB 280-153862/1-A was outside control limits biased high. There were no target analytes detected in the method blank. Therefore, data was not compromised. Also all associated sample surrogates fell within acceptance criteria; therefore, the data have been reported.

The laboratory control sample (LCS) for prep batch 280-154361 exceeded control limits for the following analyte: 2,4-D. This analyte is biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. Data was flagged accordingly.

The continuing calibration verification (CCV) for 2,4,5-T associated with analytical batch 280-154361 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The MS and MSD spike recoveries for Dinoseb failed the recovery criteria low in batch 280-154361. Surrogate and spike recoveries were calculated on diluted samples.

No other difficulties were encountered during the herbicides analyses.

All other quality control parameters were within the acceptance limits.

#### **TOTAL METALS SOILS**

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for total metals in accordance with EPA SW-846 Method 6010B.

The MS and MSD spike recoveries for Lead failed the recovery in batch 280-154235. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

#### **DISSOLVED METALS WATER**

Sample NW-02-GW (280-37285-2) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B.

Selenium was detected in method blank MB 280-153635/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other anomalies were observed.

#### **TOTAL METALS WATER**

Sample NW-02-GW (280-37285-2) was analyzed for total metals in accordance with EPA SW-846 Method 6010B.

Barium, Cadmium and Chromium were detected in method blank MB 280-153434/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

#### **DISSOLVED MERCURY - WATER**

Sample NW-02-GW (280-37285-2) was analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A.

No difficulties were encountered during the dissolved mercury analysis.

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#### **Case Narrative**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-2

#### Job ID: 280-37285-2 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

All quality control parameters were within the acceptance limits.

#### **TOTAL MERCURY - WATER**

Sample NW-02-GW (280-37285-2) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A.

Mercury was detected in method blank MB 280-153532/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The MS and MSD spike recoveries for Mercury failed the recovery criteria in batch 280-154037. The associated LCS was in control and provides evidence that operating procedures were in control.

No other difficulties were encountered during the mercury analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL MERCURY - SOILS**

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A.

The MS and MSD spike recoveries for Mercury failed the recovery criteria in batch 280-153837. The associated LCS was in control and provides evidence that operating procedures were in control.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

#### OIL AND GREASE (HEM) - WATER

Sample NW-02-GW (280-37285-2) was analyzed for oil and grease (HEM) in accordance with EPA Method 1664A. The samples were prepared and analyzed on 12/29/2012.

No difficulties were encountered during the oil and grease analysis.

All quality control parameters were within the acceptance limits.

#### **TOTAL SUSPENDED SOLIDS - WATER**

Sample NW-02-GW (280-37285-2) was analyzed for total suspended solids in accordance with SM20 2540D.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

#### PH - WATER

Sample NW-02-GW (280-37285-2) was analyzed for pH in accordance with EPA SW-846 9040C.

No difficulties were encountered during the pH analysis.

All quality control parameters were within the acceptance limits.

#### PERCENT SOLIDS

Samples NW-02-O (280-37285-1), NW-02-25 (280-37285-3) and NW-02-37 (280-37285-4) were analyzed for percent solids in accordance with EPA SW846 3550C.

No difficulties were encountered during the % solids analyses.

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## **Case Narrative**

Client: RMC Consultants Inc

Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-2

Job ID: 280-37285-2 (Continued)

**Laboratory: TestAmerica Denver (Continued)** 

All quality control parameters were within the acceptance limits.

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## **Definitions/Glossary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

### **Qualifiers**

### **GC/MS VOA**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
В	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
GC/MS Son	ni VOA

#### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA	
Qualifier	Qualifier Description

Qualifier	Qualifier Description
р	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
X	Surrogate is outside control limits

#### **Metals**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

### **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Denver

1/8/2013

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## **Definitions/Glossary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

## **Glossary (Continued)**

Abbreviation

These commonly used abbreviations may or may not be present in this report.

TEQ

Toxicity Equivalent Quotient (Dioxin)

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NW-02-O

Lab Sample ID: 280-37285-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	JB	21	5.6	ug/Kg	1	₩	8260B	Total/NA
2-Butanone (MEK)	2.2	J	21	1.9	ug/Kg	1	₽	8260B	Total/NA
Methyl acetate	4.7	J	10	2.9	ug/Kg	1	₽	8260B	Total/NA
4,4'-DDT	3.2	р	1.8	0.61	ug/Kg	1	₽	8081A	Total/NA
Chlordane (n.o.s.)	0.70	Jр	1.8	0.22	ug/Kg	1	₽	8081A	Total/NA
PCB-1260	24	J	35	2.8	ug/Kg	1	₽	8082	Total/NA
Polychlorinated biphenyls, Total	24	J	35	2.8	ug/Kg	1	₽	8082	Total/NA
Arsenic	4000		1900	630	ug/Kg	1	₽	6010B	Total/NA
Barium	120000		960	73	ug/Kg	1	₩	6010B	Total/NA
Cadmium	620		480	39	ug/Kg	1	₽	6010B	Total/NA
Chromium	13000		1400	56	ug/Kg	1	₽	6010B	Total/NA
Lead	220000		770	260	ug/Kg	1	₩	6010B	Total/NA
Mercury	120		21	6.7	ug/Kg	1	₽	7471A	Total/NA

Client Sample ID: NW-02-GW

Lab Sample ID: 280-37285-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	2.1	J	9.7	0.54	ug/L	1	_	8270C	Total/NA
Arsenic	27		15	4.4	ug/L	1		6010B	Total/NA
Barium	650	В	10	0.58	ug/L	1		6010B	Total/NA
Cadmium	8.4	В	5.0	0.45	ug/L	1		6010B	Total/NA
Chromium	77	В	10	0.66	ug/L	1		6010B	Total/NA
Lead	54		9.0	2.6	ug/L	1		6010B	Total/NA
Selenium	11	J	15	4.9	ug/L	1		6010B	Total/NA
Barium	170		10	0.58	ug/L	1		6010B	Dissolved
Cadmium	0.61	J	5.0	0.45	ug/L	1		6010B	Dissolved
Selenium	12	JВ	15	4.9	ug/L	1		6010B	Dissolved
Mercury	0.11	JB	0.20	0.027	ug/L	1		7470A	Total/NA
pH adj. to 25 deg C	7.07	HF	0.100	0.100	SU	1		9040C	Total/NA
Temperature	20.0	HF	1.00	1.00	Degrees C	1		9040C	Total/NA
Total Suspended Solids	2400		100	28	mg/L	1		SM 2540D	Total/NA

Client Sample ID: NW-02-25

Lab Sample ID: 280-37285-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	5.5	J	5.6	0.45	ug/Kg	1	₩	8260B	Total/NA
Methylcyclohexane	12		5.6	0.47	ug/Kg	1	₩	8260B	Total/NA
Arsenic	4100		2000	650	ug/Kg	1	₩	6010B	Total/NA
Barium	170000		980	74	ug/Kg	1	₩	6010B	Total/NA
Cadmium	270	J	490	40	ug/Kg	1	₩	6010B	Total/NA
Chromium	13000		1500	57	ug/Kg	1	₽	6010B	Total/NA
Lead	15000		780	260	ug/Kg	1	₩	6010B	Total/NA
Mercury	38		17	5.6	ug/Kg	1	₽	7471A	Total/NA

Client Sample ID: NW-02-37

Lab Sample	ID: 280-37285-4
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	78		26	6.9	ug/Kg		₩	8260B	Total/NA
2-Butanone (MEK)	17	J	26	2.4	ug/Kg	1	₽	8260B	Total/NA
Cyclohexane	5.2	J	6.4	0.51	ug/Kg	1	₩	8260B	Total/NA
Methylcyclohexane	11		6.4	0.54	ug/Kg	1	₽	8260B	Total/NA
Arsenic	6100		2500	810	ug/Kg	1	₩	6010B	Total/NA

TestAmerica Denver

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## **Detection Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

Lab Sample ID: 280-37285-4

Client Sample ID: NW-02-37 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	130000		1200	94	ug/Kg	1	₩	6010B	Total/NA
Cadmium	120	J	620	50	ug/Kg	1	₩	6010B	Total/NA
Chromium	17000		1800	71	ug/Kg	1	₩	6010B	Total/NA
Lead	13000		980	330	ug/Kg	1	₽	6010B	Total/NA
Selenium	1100	J	1600	1100	ug/Kg	1	₩	6010B	Total/NA
Mercury	13	J	25	8.1	ug/Kg	1	₽	7471A	Total/NA

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## **Method Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL DEN
8081A	Organochlorine Pesticides (GC)	SW846	TAL DEN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
6010B	Metals (ICP)	SW846	TAL DEN
7470A	Mercury (CVAA)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
1664A	Oil & Grease (HEM)	EPA	TAL DEN
9040C	рН	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
Local Method	General Sub Contract Method	NONE	EMLab-OC

#### **Protocol References:**

EPA = US Environmental Protection Agency

NONE = NONE

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

EMLab-OC = EMLab P&K Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626 TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TestAmerica Denver

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## **Sample Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37285-1	NW-02-O	Solid	12/20/12 08:40	12/20/12 16:44
280-37285-2	NW-02-GW	Water	12/20/12 11:55	12/20/12 16:44
280-37285-3	NW-02-25	Solid	12/20/12 09:33	12/20/12 16:44
280-37285-4	NW-02-37	Solid	12/20/12 10:04	12/20/12 16:44

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## **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37285-2 Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: NW-02-O Lab Sample ID: 280-37285-1 Date Collected: 12/20/12 08:40 Matrix: Solid

Date Collected: 12/20/12 08:40 Date Received: 12/20/12 16:44								Percent Soli	ix: Solid ds: 95.5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	15	J B	21	5.6	ug/Kg	<del>\</del>	12/26/12 16:00	12/27/12 02:53	1
2-Butanone (MEK)	2.2	J	21	1.9	ug/Kg	≎	12/26/12 16:00	12/27/12 02:53	1
Benzene	ND		5.2	0.49	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Chlorobenzene	ND		5.2	0.56	ug/Kg	\$	12/26/12 16:00	12/27/12 02:53	1
Carbon disulfide	ND		5.2	0.44	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Carbon tetrachloride	ND		5.2	0.65	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Cyclohexane	ND		5.2	0.42	ug/Kg	\$	12/26/12 16:00	12/27/12 02:53	1
1,2-Dibromo-3-Chloropropane	ND		10	0.62	ug/Kg	₩	12/26/12 16:00	12/27/12 02:53	1
Bromomethane	ND		10	0.52	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Bromoform	ND		5.2	0.24	ug/Kg	φ	12/26/12 16:00	12/27/12 02:53	1
Chloroethane	ND		10	0.92	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Chloroform	ND		10	0.30	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Chlorobromomethane	ND		5.2	0.31	ug/Kg	φ	12/26/12 16:00	12/27/12 02:53	1
Dichlorobromomethane	ND		5.2	0.23	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Chlorodibromomethane	ND		5.2	0.59	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Isopropylbenzene	ND		5.2	0.61	ug/Kg	<del>-</del>	12/26/12 16:00	12/27/12 02:53	1
2-Hexanone	ND		21	5.1	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Chloromethane	ND		10	0.80	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Dichlorodifluoromethane	ND		10		ug/Kg	<del></del>	12/26/12 16:00	12/27/12 02:53	1
trans-1,2-Dichloroethene	ND		2.6		ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
trans-1,3-Dichloropropene	ND		5.2		ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Methylene Chloride	ND		5.2		ug/Kg	<del>.</del>	12/26/12 16:00	12/27/12 02:53	1
Methyl acetate	4.7	1	10		ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Methyl tert-butyl ether	ND		21		ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
4-Methyl-2-pentanone (MIBK)	ND		21		ug/Kg	<del>.</del>	12/26/12 16:00	12/27/12 02:53	
Methylcyclohexane	ND		5.2		ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
Styrene	ND		5.2		ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1
1,1,2,2-Tetrachloroethane	ND		5.2		ug/Kg	<del>.</del>	12/26/12 16:00	12/27/12 02:53	· · 1
1,2,3-Trichlorobenzene	ND		5.2		ug/Kg ug/Kg		12/26/12 16:00	12/27/12 02:53	1
1,2,4-Trichlorobenzene	ND		5.2		ug/Kg ug/Kg	*	12/26/12 16:00	12/27/12 02:53	1
Toluene	ND		5.2		ug/Kg	· · · · · · · · · · · · · · · · · · ·	12/26/12 16:00	12/27/12 02:53	1
1,1,1-Trichloroethane	ND		5.2		ug/Kg ug/Kg	*	12/26/12 16:00	12/27/12 02:53	1
1,1,2-Trichloroethane	ND		5.2		ug/Kg ug/Kg		12/26/12 16:00	12/27/12 02:53	1
Trichloroethene	ND		5.2		ug/Kg ug/Kg	· · · · · · · · ·	12/26/12 16:00	12/27/12 02:53	
1.1.2-Trichlorotrifluoroethane	ND		21		ug/Kg ug/Kg	₩	12/26/12 16:00	12/27/12 02:53	1
Vinyl chloride	ND		5.2		ug/Kg		12/26/12 16:00	12/27/12 02:53	,
						<del>-</del>	12/26/12 16:00	12/27/12 02:53	
m-Xylene & p-Xylene	ND		2.6		ug/Kg	₩			
o-Xylene	ND		2.6		ug/Kg	₩	12/26/12 16:00	12/27/12 02:53	1
Tetrachloroethene	ND		5.2		ug/Kg		12/26/12 16:00	12/27/12 02:53	1 
1,2-Dichlorobenzene	ND		5.2		ug/Kg	Ď n	12/26/12 16:00	12/27/12 02:53	1
1,3-Dichlorobenzene	ND		5.2		ug/Kg	Ď n	12/26/12 16:00	12/27/12 02:53	1
1,4-Dichlorobenzene	ND		5.2		ug/Kg		12/26/12 16:00	12/27/12 02:53	1
cis-1,2-Dichloroethene	ND		2.6		ug/Kg	**	12/26/12 16:00	12/27/12 02:53	1
cis-1,3-Dichloropropene	ND		5.2		ug/Kg	<b>\$</b>	12/26/12 16:00	12/27/12 02:53	1
1,1-Dichloroethane	ND		5.2		ug/Kg		12/26/12 16:00	12/27/12 02:53	1
1,1-Dichloroethene	ND		5.2		ug/Kg	<b>\$</b>	12/26/12 16:00	12/27/12 02:53	1
1,2-Dichloroethane	ND		5.2		ug/Kg	₩	12/26/12 16:00	12/27/12 02:53	1
1,2-Dichloropropane	ND		5.2		ug/Kg		12/26/12 16:00	12/27/12 02:53	1
1,4-Dioxane	ND		520	58	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1

TestAmerica Denver

1/8/2013

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NW-02-O Date Collected: 12/20/12 08:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID:	・280_37285_4	۱

**Matrix: Solid** 

Percent Solids: 95.5

Date Received: 12/20/12 16:44								Percent Soli	ds: 95.5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.2	0.70	ug/Kg	*	12/26/12 16:00	12/27/12 02:53	1
1,2-Dibromoethane	ND		5.2	0.54	ug/Kg	≎	12/26/12 16:00	12/27/12 02:53	1
Trichlorofluoromethane	ND		10	1.1	ug/Kg	₽	12/26/12 16:00	12/27/12 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		58 - 140	12/26/12 16:00	12/27/12 02:53	1
Toluene-d8 (Surr)	94		80 - 126	12/26/12 16:00	12/27/12 02:53	1
4-Bromofluorobenzene (Surr)	94		76 - 127	12/26/12 16:00	12/27/12 02:53	1
Dibromofluoromethane (Surr)	102		75 - 121	12/26/12 16:00	12/27/12 02:53	1

Lab Sample ID: 280-37285-2

Amaluta	DI4 O	DI.	MDI II14	 Danage and all	A l	D:: F.
Date Received: 12/20/12 16:44						
Date Collected: 12/20/12 11:55					Matri	ix: Wate
Client Sample ID: NW-02-GW				Lab S	Sample ID: 280	-37285-

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			12/28/12 12:48	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			12/28/12 12:48	1
Benzene	ND		1.0	0.16	ug/L			12/28/12 12:48	1
Chlorobenzene	ND		1.0	0.17	ug/L			12/28/12 12:48	1
Carbon disulfide	ND		2.0	0.45	ug/L			12/28/12 12:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			12/28/12 12:48	1
Cyclohexane	ND		2.0	0.28	ug/L			12/28/12 12:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/28/12 12:48	1
Bromomethane	ND		2.0	0.21	ug/L			12/28/12 12:48	1
Bromoform	ND		1.0	0.19	ug/L			12/28/12 12:48	1
Chloroethane	ND		2.0	0.41	ug/L			12/28/12 12:48	1
Chloroform	ND		1.0	0.16	ug/L			12/28/12 12:48	1
Chlorobromomethane	ND		1.0	0.10	ug/L			12/28/12 12:48	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			12/28/12 12:48	1
Chlorodibromomethane	ND		1.0	0.17	ug/L			12/28/12 12:48	1
Isopropylbenzene	ND		1.0	0.19	ug/L			12/28/12 12:48	1
2-Hexanone	ND		5.0	1.7	ug/L			12/28/12 12:48	1
Chloromethane	ND		2.0	0.30	ug/L			12/28/12 12:48	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			12/28/12 12:48	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			12/28/12 12:48	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			12/28/12 12:48	1
Methylene Chloride	ND		2.0	0.32	ug/L			12/28/12 12:48	1
Methyl acetate	ND		5.0	1.6	ug/L			12/28/12 12:48	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			12/28/12 12:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			12/28/12 12:48	1
Methylcyclohexane	ND		1.0	0.36	ug/L			12/28/12 12:48	1
Styrene	ND		1.0	0.17	ug/L			12/28/12 12:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/28/12 12:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			12/28/12 12:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			12/28/12 12:48	1
Toluene	ND		1.0	0.17	ug/L			12/28/12 12:48	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			12/28/12 12:48	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			12/28/12 12:48	1
Trichloroethene	ND		1.0	0.16	ug/L			12/28/12 12:48	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			12/28/12 12:48	1
Vinyl chloride	ND		1.0	0.10	ug/L			12/28/12 12:48	1

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: NW-02-GW Lab Sample ID: 280-37285-2 **Matrix: Water** 

Date Collected: 12/20/12 11:55 Date Received: 12/20/12 16:44

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			12/28/12 12:48	1
o-Xylene	ND		1.0	0.19	ug/L			12/28/12 12:48	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/28/12 12:48	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			12/28/12 12:48	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/28/12 12:48	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			12/28/12 12:48	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			12/28/12 12:48	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/28/12 12:48	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			12/28/12 12:48	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			12/28/12 12:48	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			12/28/12 12:48	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			12/28/12 12:48	1
1,4-Dioxane	ND		200	57	ug/L			12/28/12 12:48	1
Ethylbenzene	ND		1.0	0.16	ug/L			12/28/12 12:48	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			12/28/12 12:48	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			12/28/12 12:48	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 127	_		12/28/12 12:48	1
Toluene-d8 (Surr)	91		80 - 125			12/28/12 12:48	1
4-Bromofluorobenzene (Surr)	87		78 - 120			12/28/12 12:48	1
Dibromofluoromethane (Surr)	96		77 - 120			12/28/12 12:48	1

Client Sample ID: NW-02-25 Lab Sample ID: 280-37285-3 Date Collected: 12/20/12 09:33

Date Collected: 12/20/12 09:33								Matri	ix: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 85.9
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		23	6.1	ug/Kg	<del>*</del>	12/27/12 16:00	12/28/12 05:29	1
2-Butanone (MEK)	ND		23	2.1	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Benzene	ND		5.6	0.53	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Chlorobenzene	ND		5.6	0.61	ug/Kg	\$	12/27/12 16:00	12/28/12 05:29	1
Carbon disulfide	ND		5.6	0.47	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Carbon tetrachloride	ND		5.6	0.71	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Cyclohexane	5.5	J	5.6	0.45	ug/Kg	\$	12/27/12 16:00	12/28/12 05:29	1
1,2-Dibromo-3-Chloropropane	ND		11	0.68	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Bromomethane	ND		11	0.56	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Bromoform	ND		5.6	0.26	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Chloroethane	ND		11	1.0	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Chloroform	ND		11	0.33	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Chlorobromomethane	ND		5.6	0.34	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Dichlorobromomethane	ND		5.6	0.25	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Chlorodibromomethane	ND		5.6	0.64	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Isopropylbenzene	ND		5.6	0.66	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
2-Hexanone	ND		23	5.5	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Chloromethane	ND		11	0.87	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Dichlorodifluoromethane	ND		11	0.59	ug/Kg	φ.	12/27/12 16:00	12/28/12 05:29	1
trans-1,2-Dichloroethene	ND		2.8	0.44	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
trans-1,3-Dichloropropene	ND		5.6	0.75	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Methylene Chloride	ND		5.6	1.8	ug/Kg	ф.	12/27/12 16:00	12/28/12 05:29	1
Methyl acetate	ND		11	3.1	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1

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Lab Sample ID: 280-37285-3

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NW-02-25

1,1-Dichloroethene

1,2-Dichloroethane

1,2-Dichloropropane

1,2-Dibromoethane

Trichlorofluoromethane

1,4-Dioxane

Ethylbenzene

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

ND

ND

ND

ND

ND

ND

ND

Date Collected: 12/20/12 09:33									x: Solid
Date Received: 12/20/12 16:44								Percent Soli	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		23	0.38	ug/Kg	<u> </u>	12/27/12 16:00	12/28/12 05:29	1
4-Methyl-2-pentanone (MIBK)	ND		23	4.9	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Methylcyclohexane	12		5.6	0.47	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Styrene	ND		5.6	0.71	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.69	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,2,3-Trichlorobenzene	ND		5.6	0.84	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,2,4-Trichlorobenzene	ND		5.6	0.82	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Toluene	ND		5.6	0.78	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,1,1-Trichloroethane	ND		5.6	0.59	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,1,2-Trichloroethane	ND		5.6	0.99	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Trichloroethene	ND		5.6	0.26	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,1,2-Trichlorotrifluoroethane	ND		23	0.51	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
Vinyl chloride	ND		5.6	1.5	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
m-Xylene & p-Xylene	ND		2.8	1.2	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
o-Xylene	ND		2.8	0.69	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
Tetrachloroethene	ND		5.6	0.66	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,2-Dichlorobenzene	ND		5.6	0.51	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,3-Dichlorobenzene	ND		5.6	0.54	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1
1,4-Dichlorobenzene	ND		5.6	0.88	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
cis-1,2-Dichloroethene	ND		2.8	0.63	ug/Kg	\$	12/27/12 16:00	12/28/12 05:29	1
cis-1,3-Dichloropropene	ND	٨	5.6	1.5	ug/Kg	₽	12/27/12 16:00	12/28/12 05:29	1
1,1-Dichloroethane	ND		5.6	0.24	ug/Kg	₩	12/27/12 16:00	12/28/12 05:29	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92	58 - 140	12/27/12 16:00	12/28/12 05:29	1
Toluene-d8 (Surr)	107	80 - 126	12/27/12 16:00	12/28/12 05:29	1
4-Bromofluorobenzene (Surr)	104	76 - 127	12/27/12 16:00	12/28/12 05:29	1
Dibromofluoromethane (Surr)	90	75 - 121	12/27/12 16:00	12/28/12 05:29	1

5.6

5.6

5.6

560

5.6

5.6

11

0.66 ug/Kg

0.79 ug/Kg

0.62 ug/Kg

0.75 ug/Kg

0.59 ug/Kg

1.2 ug/Kg

63 ug/Kg

12/27/12 16:00

12/27/12 16:00

12/27/12 16:00

12/27/12 16:00

12/27/12 16:00

12/27/12 16:00

12/27/12 16:00

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12/28/12 05:29

12/28/12 05:29

12/28/12 05:29

12/28/12 05:29

12/28/12 05:29

12/28/12 05:29

12/28/12 05:29

Date Neceived. 12/20/12 10.44								i ercent oon	us. 11. <del>1</del>
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	78		26	6.9	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
2-Butanone (MEK)	17	J	26	2.4	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Benzene	ND		6.4	0.60	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Chlorobenzene	ND		6.4	0.69	ug/Kg	\$	12/27/12 16:00	12/28/12 06:26	1
Carbon disulfide	ND		6.4	0.54	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Carbon tetrachloride	ND		6.4	0.81	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Cyclohexane	5.2	J	6.4	0.51	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,2-Dibromo-3-Chloropropane	ND		13	0.77	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Bromomethane	ND		13	0.64	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Bromoform	ND		6.4	0.30	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1

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13

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NW-02-37 Date Collected: 12/20/12 10:04

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37	7285

Date Received: 12/20/12 16:44								Percent Soli	ds: 77.4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		13	1.1	ug/Kg	<del>*</del>	12/27/12 16:00	12/28/12 06:26	1
Chloroform	ND		13	0.37	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Chlorobromomethane	ND		6.4	0.39	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Dichlorobromomethane	ND		6.4	0.28	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Chlorodibromomethane	ND		6.4	0.73	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Isopropylbenzene	ND		6.4	0.76	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
2-Hexanone	ND		26	6.3	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Chloromethane	ND		13	0.99	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Dichlorodifluoromethane	ND		13	0.67	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
trans-1,2-Dichloroethene	ND		3.2	0.50	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
trans-1,3-Dichloropropene	ND		6.4	0.86	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Methylene Chloride	ND		6.4	2.1	ug/Kg	Φ	12/27/12 16:00	12/28/12 06:26	1
Methyl acetate	ND		13	3.5	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Methyl tert-butyl ether	ND		26	0.44	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
4-Methyl-2-pentanone (MIBK)	ND		26	5.6	ug/Kg		12/27/12 16:00	12/28/12 06:26	1
Methylcyclohexane	11		6.4	0.54	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Styrene	ND		6.4	0.81	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,1,2,2-Tetrachloroethane	ND		6.4	0.78	ug/Kg		12/27/12 16:00	12/28/12 06:26	1
1,2,3-Trichlorobenzene	ND		6.4	0.97	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,2,4-Trichlorobenzene	ND		6.4	0.94	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Toluene	ND		6.4	0.89	ug/Kg		12/27/12 16:00	12/28/12 06:26	1
1,1,1-Trichloroethane	ND		6.4	0.67	ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,1,2-Trichloroethane	ND		6.4	1.1	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Trichloroethene	ND		6.4		ug/Kg	· · · · · · · · · · · · · · · · · · ·	12/27/12 16:00	12/28/12 06:26	1
1,1,2-Trichlorotrifluoroethane	ND		26		ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
Vinyl chloride	ND		6.4		ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
m-Xylene & p-Xylene	ND		3.2		ug/Kg	<del>-</del>	12/27/12 16:00	12/28/12 06:26	1
o-Xylene	ND		3.2		ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
Tetrachloroethene	ND		6.4		ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
1,2-Dichlorobenzene	ND		6.4		ug/Kg		12/27/12 16:00	12/28/12 06:26	1
1,3-Dichlorobenzene	ND		6.4		ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,4-Dichlorobenzene	ND		6.4		ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
cis-1,2-Dichloroethene	ND		3.2		ug/Kg	<del>ф</del>	12/27/12 16:00	12/28/12 06:26	1
cis-1,3-Dichloropropene	ND	٨	6.4	1.7	ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
1,1-Dichloroethane	ND		6.4		ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
1,1-Dichloroethene	ND		6.4		ug/Kg		12/27/12 16:00	12/28/12 06:26	
1,2-Dichloroethane	ND		6.4		ug/Kg	₩	12/27/12 16:00	12/28/12 06:26	1
1,2-Dichloropropane	ND		6.4		ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,4-Dioxane	ND		640		ug/Kg		12/27/12 16:00	12/28/12 06:26	· · · · · · · · · · · · · · · · · · ·
Ethylbenzene	ND ND		6.4		ug/Kg ug/Kg	₽	12/27/12 16:00	12/28/12 06:26	1
1,2-Dibromoethane	ND ND		6.4		ug/Kg ug/Kg		12/27/12 16:00	12/28/12 06:26	1
Trichlorofluoromethane	ND		13		ug/Kg ug/Kg		12/27/12 16:00	12/28/12 06:26	
	5				. 3 3			·==· ·= ·=·	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

TestAmerica Denver

1

12/28/12 06:26

12/28/12 06:26

12/28/12 06:26

12/27/12 16:00 12/28/12 06:26

12/27/12 16:00

12/27/12 16:00

12/27/12 16:00

58 - 140

80 - 126

76 - 127

75 - 121

95

106

103

## **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37285-2 Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: NW-02-GW

Carbazole

Lab Sample ID: 280-37285-2

Date Collected: 12/20/12 11:55								Matrix	x: Water
Date Received: 12/20/12 16:44									
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		9.7	1.7	ug/L		12/22/12 15:00	12/27/12 15:43	1
1,2,4,5-Tetrachlorobenzene	ND		9.7	1.7	ug/L		12/22/12 15:00	12/27/12 15:43	1
1,2,4-Trichlorobenzene	ND		3.9	0.27	ug/L		12/22/12 15:00	12/27/12 15:43	1
1,2-Dichlorobenzene	ND		3.9	0.22	ug/L		12/22/12 15:00	12/27/12 15:43	1
1,3-Dichlorobenzene	ND		9.7	0.29	ug/L		12/22/12 15:00	12/27/12 15:43	1
1,4-Dichlorobenzene	ND		3.9	0.31	ug/L		12/22/12 15:00	12/27/12 15:43	1
1,4-Dioxane	ND		19	1.6	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,4,6-Trichlorophenol	ND		9.7	0.28	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,4-Dichlorophenol	ND		9.7	0.62	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,2'-oxybis[1-chloropropane]	ND		9.7	0.27	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,3,4,6-Tetrachlorophenol	ND		49	1.9	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,4,5-Trichlorophenol	ND		9.7	0.44	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,4-Dimethylphenol	ND		9.7	0.56	ug/L		12/22/12 15:00	12/27/12 15:43	1
2,4-Dinitrophenol	ND		29		ug/L		12/22/12 15:00	12/27/12 15:43	1
2,4-Dinitrotoluene	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
2,6-Dinitrotoluene	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
2-Chloronaphthalene	ND		3.9		ug/L		12/22/12 15:00	12/27/12 15:43	1
2-Chlorophenol	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
2-Methylnaphthalene	ND		3.9	0.28			12/22/12 15:00	12/27/12 15:43	· · · · · · · · · · · · · · · · · · ·
2-Methylphenol	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
3 & 4 Methylphenol	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
2-Nitroaniline	ND		9.7				12/22/12 15:00	12/27/12 15:43	
					ug/L				
2-Nitrophenol	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
3,3'-Dichlorobenzidine	ND		49		ug/L		12/22/12 15:00	12/27/12 15:43	1
3-Nitroaniline	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
4,6-Dinitro-2-methylphenol	ND		49		ug/L		12/22/12 15:00	12/27/12 15:43	1
4-Bromophenyl phenyl ether	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
4-Chloro-3-methylphenol	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
4-Chloroaniline	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
4-Chlorophenyl phenyl ether	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
4-Nitroaniline	ND		9.7	1.9	ug/L		12/22/12 15:00	12/27/12 15:43	1
4-Nitrophenol	ND		9.7	1.2	ug/L		12/22/12 15:00	12/27/12 15:43	1
Acenaphthene	ND		3.9	0.27	ug/L		12/22/12 15:00	12/27/12 15:43	1
Acenaphthylene	ND		3.9	0.48	ug/L		12/22/12 15:00	12/27/12 15:43	1
Acetophenone	ND		9.7	0.23	ug/L		12/22/12 15:00	12/27/12 15:43	1
Anthracene	ND		3.9	0.41	ug/L		12/22/12 15:00	12/27/12 15:43	1
Atrazine	ND		9.7	0.71	ug/L		12/22/12 15:00	12/27/12 15:43	1
Benzaldehyde	ND		9.7	1.9	ug/L		12/22/12 15:00	12/27/12 15:43	1
Benzo[a]pyrene	ND		3.9	0.30	ug/L		12/22/12 15:00	12/27/12 15:43	1
Benzo[b]fluoranthene	ND		3.9	0.52	ug/L		12/22/12 15:00	12/27/12 15:43	1
Benzo[g,h,i]perylene	ND		3.9		ug/L		12/22/12 15:00	12/27/12 15:43	1
Benzo[k]fluoranthene	ND		3.9	0.45	ug/L		12/22/12 15:00	12/27/12 15:43	1
Benzo[a]anthracene	ND		3.9		ug/L		12/22/12 15:00	12/27/12 15:43	1
Bis(2-chloroethoxy)methane	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
Bis(2-chloroethyl)ether	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
Bis(2-ethylhexyl) phthalate	2.1		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	· · · · · · · · · · · · · · · · · · ·
Butyl benzyl phthalate	ND	•	3.9		ug/L		12/22/12 15:00	12/27/12 15:43	1
Caprolactam	ND		9.7		ug/L		12/22/12 15:00	12/27/12 15:43	1
Ouproidotam	IND		J.1		ug/L		12122112 10.00	12121112 10.40	

TestAmerica Denver

12/27/12 15:43

12/22/12 15:00

0.42 ug/L

ND

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: NW-02-GW Lab Sample ID: 280-37285-2

Date Collected: 12/20/12 11:55 **Matrix: Water** 

Date Received: 12/20/12 16:4	4								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		3.9	0.52	ug/L		12/22/12 15:00	12/27/12 15:43	1
Dibenz(a,h)anthracene	ND		3.9	0.50	ug/L		12/22/12 15:00	12/27/12 15:43	1
Di-n-butyl phthalate	ND		3.9	1.1	ug/L		12/22/12 15:00	12/27/12 15:43	1
Di-n-octyl phthalate	ND		3.9	0.34	ug/L		12/22/12 15:00	12/27/12 15:43	1
Dibenzofuran	ND		3.9	0.28	ug/L		12/22/12 15:00	12/27/12 15:43	1
Diethyl phthalate	ND		3.9	0.37	ug/L		12/22/12 15:00	12/27/12 15:43	1
Dimethyl phthalate	ND		3.9	0.20	ug/L		12/22/12 15:00	12/27/12 15:43	1
Fluoranthene	ND		3.9	0.19	ug/L		12/22/12 15:00	12/27/12 15:43	1
Fluorene	ND		3.9	0.30	ug/L		12/22/12 15:00	12/27/12 15:43	1
Hexachlorobenzene	ND		9.7	0.64	ug/L		12/22/12 15:00	12/27/12 15:43	1
Hexachlorobutadiene	ND		9.7	3.2	ug/L		12/22/12 15:00	12/27/12 15:43	1
Hexachlorocyclopentadiene	ND		49	9.7	ug/L		12/22/12 15:00	12/27/12 15:43	1
Hexachloroethane	ND		9.7	2.0	ug/L		12/22/12 15:00	12/27/12 15:43	1
Indeno[1,2,3-cd]pyrene	ND		3.9	0.63	ug/L		12/22/12 15:00	12/27/12 15:43	1
Isophorone	ND		9.7	0.20	ug/L		12/22/12 15:00	12/27/12 15:43	1
N-Nitrosodi-n-propylamine	ND		9.7	0.34	ug/L		12/22/12 15:00	12/27/12 15:43	1
n-Nitrosodiphenylamine(as diphenylamine)	ND		9.7	0.43	ug/L		12/22/12 15:00	12/27/12 15:43	1
Naphthalene	ND		3.9	0.28	ug/L		12/22/12 15:00	12/27/12 15:43	1
Nitrobenzene	ND		9.7	0.79	ug/L		12/22/12 15:00	12/27/12 15:43	1
Pentachlorophenol	ND		49	19	ug/L		12/22/12 15:00	12/27/12 15:43	1
Phenanthrene	ND		3.9	0.25	ug/L		12/22/12 15:00	12/27/12 15:43	1
Phenol	ND		9.7	1.9	ug/L		12/22/12 15:00	12/27/12 15:43	1
Pyrene	ND		9.7	0.36	ug/L		12/22/12 15:00	12/27/12 15:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	80	51 - 120	12/22/12 15:00	12/27/12 15:43	1
Phenol-d5	86	51 - 120	12/22/12 15:00	12/27/12 15:43	1
2,4,6-Tribromophenol	86	57 <sub>-</sub> 120	12/22/12 15:00	12/27/12 15:43	1
2-Fluorobiphenyl	78	38 - 120	12/22/12 15:00	12/27/12 15:43	1
Nitrobenzene-d5	85	48 - 120	12/22/12 15:00	12/27/12 15:43	1
Terphenyl-d14	83	50 - 120	12/22/12 15:00	12/27/12 15:43	1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: NW-02-O Lab Sample ID: 280-37285-1 Date Collected: 12/20/12 08:40 **Matrix: Solid** Date Received: 12/20/12 16:44 Percent Solids: 95.5

Prepared Analyte Result Qualifier RL MDL Unit D Analyzed ₩ ND 4,4'-DDD 1.8 0.57 ug/Kg 12/24/12 11:15 12/28/12 20:50 ₩. 4,4'-DDE ND 1.8 0.25 ug/Kg 12/24/12 11:15 12/28/12 20:50 4,4'-DDT 1.8 3.2 p 0.61 ug/Kg 12/24/12 11:15 12/28/12 20:50 ND 1.8 0.26 ug/Kg 12/24/12 11:15 12/28/12 20:50 alpha-BHC ND 12/24/12 11:15 12/28/12 20:50 1.8 0.22 ug/Kg

beta-BHC	ND	1.8	0.69 ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	
Chlordane (n.o.s.)	0.70 Jp	1.8	0.22 ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	
delta-BHC	ND	1.8	0.42 ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	
Dieldrin	ND	1.8	0.22 ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	
Endosulfan I	ND	1.8	0.18 ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	-
Endosulfan II	ND	1.8	0.30 ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Tetrachloro-m-xylene

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: NW-02-O							Lab S	Sample ID: 280-	37285-1
Date Collected: 12/20/12 08:40								Matri	x: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 95.5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	ND		1.8	0.29	ug/Kg	₩	12/24/12 11:15	12/28/12 20:50	1
Endrin	ND		1.8	0.32	ug/Kg	\$	12/24/12 11:15	12/28/12 20:50	1
Endrin aldehyde	ND		1.8	0.18	ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	1
gamma-BHC (Lindane)	ND		1.8	0.48	ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	1
Heptachlor	ND		1.8	0.22	ug/Kg		12/24/12 11:15	12/28/12 20:50	1
Heptachlor epoxide	ND		1.8	0.44	ug/Kg	₽	12/24/12 11:15	12/28/12 20:50	1
Methoxychlor	ND		3.4	0.47	ug/Kg	☼	12/24/12 11:15	12/28/12 20:50	1
Toxaphene	ND		69	16	ug/Kg	\$	12/24/12 11:15	12/28/12 20:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		63 - 124				12/24/12 11:15	12/28/12 20:50	1
Tetrachloro-m-xylene	84		59 <sub>-</sub> 115				12/24/12 11:15	12/28/12 20:50	1

Client Sample ID: NW-02-25							Lab S	Sample ID: 280-	37285-3
Date Collected: 12/20/12 09:33								Matri	x: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 85.9
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.9	0.60	ug/Kg	<del>\</del>	12/24/12 11:15	12/28/12 21:08	1
4,4'-DDE	ND		1.9	0.26	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
4,4'-DDT	ND		1.9	0.64	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Aldrin	ND		1.9	0.27	ug/Kg	₽	12/24/12 11:15	12/28/12 21:08	1
alpha-BHC	ND		1.9	0.23	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
beta-BHC	ND		1.9	0.72	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Chlordane (n.o.s.)	ND		1.9	0.23	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
delta-BHC	ND		1.9	0.44	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Dieldrin	ND		1.9	0.23	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Endosulfan I	ND		1.9	0.19	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Endosulfan II	ND		1.9	0.31	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Endosulfan sulfate	ND		1.9	0.30	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Endrin	ND		1.9	0.33	ug/Kg	₽	12/24/12 11:15	12/28/12 21:08	1
Endrin aldehyde	ND		1.9	0.19	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
gamma-BHC (Lindane)	ND		1.9	0.51	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Heptachlor	ND		1.9	0.23	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Heptachlor epoxide	ND		1.9	0.47	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Methoxychlor	ND		3.6	0.49	ug/Kg	₩	12/24/12 11:15	12/28/12 21:08	1
Toxaphene	ND		73	17	ug/Kg	φ	12/24/12 11:15	12/28/12 21:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		63 - 124				12/24/12 11:15	12/28/12 21:08	1

Client Sample ID: NW-02-37							Lab S	Sample ID: 280-	37285-4
Date Collected: 12/20/12 10:04								Matri	x: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 77.4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1	0.68	ug/Kg	<del></del>	12/24/12 11:15	12/28/12 21:25	1
4,4'-DDE	ND		2.1	0.30	ug/Kg	₽	12/24/12 11:15	12/28/12 21:25	1
4,4'-DDT	ND		2.1	0.74	ug/Kg	₽	12/24/12 11:15	12/28/12 21:25	1
Aldrin	ND		2.1	0.31	ug/Kg	\$	12/24/12 11:15	12/28/12 21:25	1
alpha-BHC	ND		2.1	0.27	ug/Kg	₽	12/24/12 11:15	12/28/12 21:25	1

59 - 115

76

12/28/12 21:08

12/24/12 11:15

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12/24/12 11:15

12/24/12 11:15

12/28/12 21:25

12/28/12 21:25

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

DCB Decachlorobiphenyl

Tetrachloro-m-xylene

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: NW-02-37	Lab Sample ID: 280-37285-4
Date Collected: 12/20/12 10:04	Matrix: Solid

Date Received: 12/20/12 16:44 Percent Solids: 77.4 RL MDL Unit D Prepared Dil Fac Analyte Result Qualifier Analyzed beta-BHC ND 2.1 0.83 ug/Kg 12/24/12 11:15 12/28/12 21:25 12/24/12 11:15 Chlordane (n.o.s.) ND 2 1 12/28/12 21:25 0.27 ug/Kg Ü delta-BHC ND 2.1 0.50 ug/Kg 12/24/12 11:15 12/28/12 21:25 Dieldrin ND 2.1 0.26 ug/Kg 12/24/12 11:15 12/28/12 21:25 ä Endosulfan I ND 2.1 0.22 ug/Kg 12/24/12 11:15 12/28/12 21:25 Endosulfan II ND 2.1 12/24/12 11:15 12/28/12 21:25 0.36 ug/Kg ₩ Endosulfan sulfate ND 2.1 0.35 ug/Kg 12/24/12 11:15 12/28/12 21:25 Endrin ND 2.1 0.38 12/24/12 11:15 12/28/12 21:25 ug/Kg Endrin aldehyde ND 2.1 0.21 ug/Kg 12/24/12 11:15 12/28/12 21:25 gamma-BHC (Lindane) ND 2.1 0.58 ug/Kg 12/24/12 11:15 12/28/12 21:25 Heptachlor ND 2.1 0.27 ug/Kg 12/24/12 11:15 12/28/12 21:25 ND 2.1 12/24/12 11:15 Heptachlor epoxide 0.53 ug/Kg 12/28/12 21:25 Methoxychlor ND 4.1 0.56 ug/Kg 12/24/12 11:15 12/28/12 21:25 Toxaphene ND 84 20 ug/Kg 12/24/12 11:15 12/28/12 21:25 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac

63 - 124

59 - 115

#### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

75

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Client Sample ID: NW-02-O Lab Sample ID: 280-37285-1 Date Collected: 12/20/12 08:40 **Matrix: Solid** Date Received: 12/20/12 16:44 Percent Solids: 95.5 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ₩ PCB-1016 ND 35 5.3 ug/Kg 12/21/12 16:15 12/31/12 19:35 PCB-1221 ND 49 16 ug/Kg 12/21/12 16:15 12/31/12 19:35 \$ PCB-1232 ND 35 5.4 ug/Kg 12/21/12 16:15 12/31/12 19:35 ₽ PCB-1242 ND 35 9.6 ug/Kg 12/21/12 16:15 12/31/12 19:35 PCB-1248 ND 35 5.9 ug/Kg 12/21/12 16:15 12/31/12 19:35 PCB-1254 ND 35 5.8 12/21/12 16:15 12/31/12 19:35 ug/Kg 35 ā 12/21/12 16:15 12/31/12 19:35 PCB-1260 24 2.8 ug/Kg PCB-1262 ND 35 12 ug/Kg 12/21/12 16:15 12/31/12 19:35 Ü PCB-1268 ND 35 4.1 ug/Kg 12/21/12 16:15 12/31/12 19:35 2.8 ug/Kg Polychlorinated biphenyls, Total 24 J 35 12/21/12 16:15 12/31/12 19:35

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66	59 - 13	0 12/21/12 16:15	12/31/12 19:35	1
Tetrachloro-m-xvlene	79	53 - 12	8 12/21/12 16:15	12/31/12 19:35	1

Client Sample ID: NW-02-25 Lab Sample ID: 280-37285-3 Date Collected: 12/20/12 09:33 **Matrix: Solid** 

Date Received: 12/20/12 16:44								Percent Soli	ds: 85.9
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		35	5.4	ug/Kg	<del>\</del>	12/21/12 16:15	12/31/12 20:45	1
PCB-1221	ND		50	16	ug/Kg	₩	12/21/12 16:15	12/31/12 20:45	1
PCB-1232	ND		35	5.4	ug/Kg	₩	12/21/12 16:15	12/31/12 20:45	1
PCB-1242	ND		35	9.6	ug/Kg	₽	12/21/12 16:15	12/31/12 20:45	1
PCB-1248	ND		35	5.9	ug/Kg	₩	12/21/12 16:15	12/31/12 20:45	1
PCB-1254	ND		35	5.8	ug/Kg	₽	12/21/12 16:15	12/31/12 20:45	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: NW-02-25 Date Collected: 12/20/12 09:33							Lab S	Sample ID: 280-	37285-3 x: Solid
Date Received: 12/20/12 16:44								Percent Soli	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		35	2.8	ug/Kg	<u> </u>	12/21/12 16:15	12/31/12 20:45	1
PCB-1262	ND		35	12	ug/Kg		12/21/12 16:15	12/31/12 20:45	1
PCB-1268	ND		35	4.2	ug/Kg	☼	12/21/12 16:15	12/31/12 20:45	1
Polychlorinated biphenyls, Total	ND		35	2.8	ug/Kg	\$	12/21/12 16:15	12/31/12 20:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		59 - 130				12/21/12 16:15	12/31/12 20:45	1
Tetrachloro-m-xylene	72		53 - 128				12/21/12 16:15	12/31/12 20:45	1

Date Collected: 12/20/12 10:04 Date Received: 12/20/12 16:44								Percent Solid	ix: Solid
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		42	6.5	ug/Kg	<del>\</del>	12/21/12 16:15	12/31/12 21:08	1
PCB-1221	ND		60	20	ug/Kg	₩	12/21/12 16:15	12/31/12 21:08	1
PCB-1232	ND		42	6.5	ug/Kg	₩	12/21/12 16:15	12/31/12 21:08	1
PCB-1242	ND		42	12	ug/Kg		12/21/12 16:15	12/31/12 21:08	1
PCB-1248	ND		42	7.1	ug/Kg	₩	12/21/12 16:15	12/31/12 21:08	1
PCB-1254	ND		42	7.0	ug/Kg	₩	12/21/12 16:15	12/31/12 21:08	1
PCB-1260	ND		42	3.4	ug/Kg		12/21/12 16:15	12/31/12 21:08	1
PCB-1262	ND		42	15	ug/Kg	₩	12/21/12 16:15	12/31/12 21:08	1
PCB-1268	ND		42	5.0	ug/Kg	₩	12/21/12 16:15	12/31/12 21:08	1
Polychlorinated biphenyls, Total	ND		42	3.4	ug/Kg		12/21/12 16:15	12/31/12 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	64		59 - 130	12/21/12 16:15	12/31/12 21:08	1
Tetrachloro-m-xylene	80		53 - 128	12/21/12 16:15	12/31/12 21:08	1

Mothod	04 E 4 A	Herbicides	(CC)
wetnoa:	8151A -	Herbiciaes	(66)

Client Sample ID: NW-02-O Date Collected: 12/20/12 08:40							Lab S	Sample ID: 280- Matri	37285-1 x: Solid
Date Received: 12/20/12 16:44								Percent Soli	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	*	400	71	ug/Kg	<u> </u>	12/27/12 08:40	01/02/13 21:01	5
Dinoseb	ND		61	7.1	ug/Kg	₽	12/27/12 08:40	01/02/13 21:01	5
2,4,5-T	ND		100	12	ug/Kg	₽	12/27/12 08:40	01/02/13 21:01	5
Silvex (2,4,5-TP)	ND		100	7.1	ug/Kg	₽	12/27/12 08:40	01/02/13 21:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	104	D	31 - 105				12/27/12 08:40	01/02/13 21:01	5

Date Collected: 12/20/12 09:3	3							Matri	x: Solid
Date Received: 12/20/12 16:4	4							Percent Soli	ds: 85.9
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	*	91	16	ug/Kg	₽	12/27/12 08:40	01/02/13 21:24	1
Dinoseb	ND		14	1.6	ug/Kg	₽	12/27/12 08:40	01/02/13 21:24	1
2,4,5-T	ND		23	2.6	ug/Kg	₽	12/27/12 08:40	01/02/13 21:24	1
Silvex (2,4,5-TP)	ND		23	1.6	ug/Kg	₽	12/27/12 08:40	01/02/13 21:24	1
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## **Client Sample Results**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-2

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	89		31 - 105				12/27/12 08:40	01/02/13 21:24	1
Client Sample ID: NW-02-37							Lab S	Sample ID: 280-	37285-4
Date Collected: 12/20/12 10:04								Matri	ix: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 77.4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	*	100	18	ug/Kg	<del>\</del>	12/27/12 08:40	01/02/13 21:46	1
Dinoseb	ND		15	1.8	ug/Kg	₩	12/27/12 08:40	01/02/13 21:46	1
2,4,5-T	ND		25	2.9	ug/Kg	₽	12/27/12 08:40	01/02/13 21:46	1
Silvex (2,4,5-TP)	ND		25	1.8	ug/Kg	₽	12/27/12 08:40	01/02/13 21:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	88		31 - 105				12/27/12 08:40	01/02/13 21:46	1

Method: 6010B - Metals (ICP)

Client Sample ID: NW-02-O							Lab S	Sample ID: 280-	37285-1
Date Collected: 12/20/12 08:40								Matri	x: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 95.5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4000		1900	630	ug/Kg	\$	12/28/12 07:30	12/31/12 15:25	1
Barium	120000		960	73	ug/Kg	₽	12/28/12 07:30	12/28/12 18:57	1
Cadmium	620		480	39	ug/Kg	₽	12/28/12 07:30	12/28/12 18:57	1
Chromium	13000		1400	56	ug/Kg	₽	12/28/12 07:30	12/28/12 18:57	1
Lead	220000		770	260	ug/Kg	₽	12/28/12 07:30	12/28/12 18:57	1
Selenium	ND		1200	830	ug/Kg	₽	12/28/12 07:30	12/28/12 18:57	1
Silver	ND		960	150	ug/Kg	₩	12/28/12 07:30	12/28/12 18:57	1

Client Sample ID: NW-02-GW Lab Sample ID: 280-37285-2 Date Collected: 12/20/12 11:55 **Matrix: Water** 

Date Received: 12/20/12 16:44									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	27		15	4.4	ug/L		12/24/12 07:30	12/24/12 22:43	1
Barium	650	В	10	0.58	ug/L		12/24/12 07:30	12/24/12 22:43	1
Cadmium	8.4	В	5.0	0.45	ug/L		12/24/12 07:30	12/24/12 22:43	1
Chromium	77	В	10	0.66	ug/L		12/24/12 07:30	12/24/12 22:43	1
Lead	54		9.0	2.6	ug/L		12/24/12 07:30	12/24/12 22:43	1
Selenium	11	J	15	4.9	ug/L		12/24/12 07:30	12/24/12 22:43	1
Silver	ND		10	0.93	ug/L		12/24/12 07:30	12/24/12 22:43	1

Client Sample ID: NW-02-25							Lab S	Sample ID: 280-	37285-3
Date Collected: 12/20/12 09:33								Matri	x: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 85.9
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4100		2000	650	ug/Kg	\$	12/28/12 07:30	12/31/12 14:57	1
Barium	170000		980	74	ug/Kg	₽	12/28/12 07:30	12/28/12 19:17	1
Cadmium	270	J	490	40	ug/Kg	₽	12/28/12 07:30	12/28/12 19:17	1
Chromium	13000		1500	57	ug/Kg	₽	12/28/12 07:30	12/28/12 19:17	1
Lead	15000		780	260	ug/Kg	₽	12/28/12 07:30	12/28/12 19:17	1
Selenium	ND		1300	840	ug/Kg	☼	12/28/12 07:30	12/28/12 19:17	1
Silver	ND		980	160	ug/Kg	\$	12/28/12 07:30	12/28/12 19:17	1

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Client: RMC Consultants Inc TestAmerica Job ID: 280-37285-2
Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP)

Client Sample ID: NW-02-37 Date Collected: 12/20/12 10:04							Lab S	Sample ID: 280-	37285-4 x: Solid
Date Received: 12/20/12 16:44 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Percent Soli Analyzed	
Arsenic	6100		2500	810	ug/Kg	<u> </u>	12/28/12 07:30	12/31/12 15:00	1
Barium	130000		1200	94	ug/Kg	₩	12/28/12 07:30	12/28/12 19:20	1
Cadmium	120	J	620	50	ug/Kg	₩	12/28/12 07:30	12/28/12 19:20	1
Chromium	17000		1800	71	ug/Kg	₩	12/28/12 07:30	12/28/12 19:20	1
Lead	13000		980	330	ug/Kg	₩	12/28/12 07:30	12/28/12 19:20	1
Selenium	1100	J	1600	1100	ug/Kg	₩	12/28/12 07:30	12/28/12 19:20	1
Silver	ND		1200	200	ug/Kg	\$	12/28/12 07:30	12/28/12 19:20	1

Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: NW-02-GW Date Collected: 12/20/12 11:55					Lab Sample ID: 280-37285-2 Matrix: Water				
Date Received: 12/20/12 16:44									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 12:00	12/31/12 20:34	1
Barium	170		10	0.58	ug/L		12/28/12 12:00	12/31/12 20:34	1
Cadmium	0.61	J	5.0	0.45	ug/L		12/28/12 12:00	12/31/12 20:34	1
Chromium	ND		10	0.66	ug/L		12/28/12 12:00	12/31/12 20:34	1
Lead	ND		9.0	2.6	ug/L		12/28/12 12:00	12/31/12 20:34	1
Selenium	12	JB	15	4.9	ug/L		12/28/12 12:00	12/31/12 20:34	1
Silver	ND		10	0.93	ug/L		12/28/12 12:00	12/31/12 20:34	1

Method: 7470A - Mercury (CVAA)

Client Sample ID: NW-02-GW	Lab Sample ID: 280-37285-2
Date Collected: 12/20/12 11:55	Matrix: Water
Date Received: 12/20/12 16:44	

	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	0.11	JB	0.20	0.027	ug/L		12/27/12 12:00	12/27/12 18:20	1

Method: 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: NW-02-GW	Lab Sample ID: 280-37285-2
Date Collected: 12/20/12 11:55	Matrix: Water
Date Received: 12/20/12 16:44	

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	0.20	0.027	ug/L		12/28/12 11:15	12/28/12 15:20	1

Method: 7471A - Mercury (CVAA)

Client Sample ID: NW-02-O Date Collected: 12/20/12 08:40							Lab S	-Sample ID: 280 Matri	37285-1 x: Solid
Date Received: 12/20/12 16:44								Percent Soli	ds: 95.5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	120		21	6.7	ug/Kg	<u> </u>	12/26/12 11:35	12/26/12 15:17	1
Client Sample ID: NW-02-25							Lah 9	Sample ID: 280-	37295-1

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 38
 17
 5.6
 ug/Kg
 2
 12/26/12 11:35
 12/26/12 15:24
 1

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## **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37285-2 Project/Site: U.S.6 at I-25 Method: 7471A - Mercury (CVAA) Client Sample ID: NW-02-37 Lab Sample ID: 280-37285-4 Date Collected: 12/20/12 10:04 **Matrix: Solid** Date Received: 12/20/12 16:44 Percent Solids: 77.4 Analyte Result Qualifier RLMDL Unit D Analyzed Dil Fac Prepared ₩ 25 Mercury 13 J 8.1 ug/Kg 12/26/12 11:35 12/26/12 15:27 **General Chemistry** Client Sample ID: NW-02-O Lab Sample ID: 280-37285-1 Date Collected: 12/20/12 08:40 **Matrix: Solid** Date Received: 12/20/12 16:44 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

Percent Solids	95	0.10	0.10 %	12/26/12 10:50 1
Client Sample ID: NW-02-GW				Lab Sample ID: 280-37285-2
Date Collected: 12/20/12 11:55				Matrix: Water

0.10

4.5

86

**Percent Moisture** 

**Percent Solids** 

0.10 %

0.10 %

Date Received: 12/20/12 16:44									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		18	4.8	mg/L		12/29/12 09:20	12/29/12 13:14	1
pH adj. to 25 deg C	7.07	HF	0.100	0.100	SU			12/29/12 12:16	1
Temperature	20.0	HF	1.00	1.00	Degrees C			12/29/12 12:16	1
Total Suspended Solids	2400		100	28	mg/L			12/26/12 15:40	1

Client Sample ID: NW-02-25							Lab	Sample ID: 280-	37285-3
Date Collected: 12/20/12 09:33								Matri	x: Solid
Date Received: 12/20/12 16:44									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.10	0.10	%			12/26/12 10:50	1

0.10

Client Sample ID: NW-02-37 Date Collected: 12/20/12 10:04							Lab	Sample ID: 280- Matri	-37285-4 ix: Solid
Date Received: 12/20/12 16:44 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		0.10	0.10	%			12/26/12 10:50	1
Percent Solids	77		0.10	0.10	%			12/26/12 10:50	1

12/26/12 10:50

12/26/12 10:50

1/8/2013

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Sui	rrogate Reco
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(58-140)	(80-126)	(76-127)	(75-121)
280-37262-F-5-C MS	Matrix Spike	101	88	86	103
280-37262-F-5-D MSD	Matrix Spike Duplicate	83	68 X	57 X	87
280-37285-1	NW-02-O	99	94	94	102
280-37285-3	NW-02-25	92	107	104	90
280-37285-3 MS	NW-02-25	97	106	104	92
280-37285-3 MSD	NW-02-25	97	104	103	90
280-37285-4	NW-02-37	95	106	103	91
LCS 280-153850/2-A	Lab Control Sample	109	97	98	111
LCS 280-153984/2-A	Lab Control Sample	99	106	106	91
MB 280-153850/1-A	Method Blank	109	97	96	113
MB 280-153984/1-A	Method Blank	93	110	108	91

#### **Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

_		Percent Surrogate Recovery (Acceptance Limits)					
		12DCE	TOL	BFB	DBFM		
Lab Sample ID	Client Sample ID	(70-127)	(80-125)	(78-120)	(77-120)		
280-37285-2	NW-02-GW	92	91	87	96		
280-37297-N-1 MS	Matrix Spike	103	93	91	104		
280-37297-N-1 MSD	Matrix Spike Duplicate	101	92	92	105		
LCS 280-153993/23	Lab Control Sample	87	85	84	92		
MB 280-153993/6	Method Blank	90	83	81	93		

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		2FP	PHL	TBP	FBP	NBZ	TPH	
Lab Sample ID	Client Sample ID	(51-120)	(51-120)	(57-120)	(38-120)	(48-120)	(50-120)	
280-37285-2	NW-02-GW	80	86	86	78	85	83	
LCS 280-153406/2-A	Lab Control Sample	89	93	91	85	93	97	
LCSD 280-153406/3-A	Lab Control Sample Dup	91	93	92	88	96	100	
MB 280-153406/1-A	Method Blank	89	92	78	85	92	95	

Surrogate Legend

2FP = 2-Fluorophenol

PHL = Phenol-d5

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

> $\mathsf{TBP} = 2,4,6$ -Tribromophenol FBP = 2-Fluorobiphenyl NBZ = Nitrobenzene-d5 TPH = Terphenyl-d14

Method: 8081A - Organochlorine Pesticides (GC)

**Matrix: Solid** Prep Type: Total/NA

		DCB1	TCX1
Lab Sample ID	Client Sample ID	(63-124)	(59-115)
280-37285-1	NW-02-O	96	84
280-37285-3	NW-02-25	78	76
280-37285-4	NW-02-37	75	83
280-37307-A-1-B MS	Matrix Spike	89 D	91 D
280-37307-A-1-C MSD	Matrix Spike Duplicate	88 D	96 D
LCS 280-153611/2-A	Lab Control Sample	94	85
MB 280-153611/1-A	Method Blank	94	86

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Matrix: Solid** Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		DCB1	TCX1	
Lab Sample ID	Client Sample ID	(59-130)	(53-128)	
280-37285-1	NW-02-O	66	79	
280-37285-1 MS	NW-02-O	65	87	
280-37285-1 MSD	NW-02-O	68	89	
280-37285-3	NW-02-25	67	72	
280-37285-4	NW-02-37	64	80	
LCS 280-153412/3-A	Lab Control Sample	85	87	
MB 280-153412/1-A	Method Blank	84	86	

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

#### Method: 8151A - Herbicides (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		DCPA1	
Lab Sample ID	Client Sample ID	(31-105)	
280-37285-1	NW-02-O	104 D	
280-37285-3	NW-02-25	89	
280-37285-4	NW-02-37	88	
280-37307-A-1-I MS	Matrix Spike	63 D	
280-37307-A-1-J MSD	Matrix Spike Duplicate	90 D	
MB 280-153862/1-A	Method Blank	121 X	
Surrogate Legend			
DCPA = 2,4-Dichlorophe	enylacetic acid		

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## **Surrogate Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

Method: 8151A - Herbicides (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		DCPA2	
Lab Sample ID	Client Sample ID	(31-105)	
LCS 280-153862/2-A	Lah Control Sample	105	

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

**GC/MS VOA** 

**Prep Batch: 153850** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37262-F-5-C MS	Matrix Spike	Total/NA	Solid	5030B	
280-37262-F-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	
280-37285-1	NW-02-O	Total/NA	Solid	5030B	
LCS 280-153850/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-153850/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 153854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37262-F-5-C MS	Matrix Spike	Total/NA	Solid	8260B	153850
280-37262-F-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	153850
280-37285-1	NW-02-O	Total/NA	Solid	8260B	153850
LCS 280-153850/2-A	Lab Control Sample	Total/NA	Solid	8260B	153850
MB 280-153850/1-A	Method Blank	Total/NA	Solid	8260B	153850

Analysis Batch: 153976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-3	NW-02-25	Total/NA	Solid	8260B	153984
280-37285-3 MS	NW-02-25	Total/NA	Solid	8260B	153984
280-37285-3 MSD	NW-02-25	Total/NA	Solid	8260B	153984
280-37285-4	NW-02-37	Total/NA	Solid	8260B	153984
LCS 280-153984/2-A	Lab Control Sample	Total/NA	Solid	8260B	153984
MB 280-153984/1-A	Method Blank	Total/NA	Solid	8260B	153984

**Prep Batch: 153984** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-3	NW-02-25		Solid	5030B	
280-37285-3 MS	NW-02-25	Total/NA	Solid	5030B	
280-37285-3 MSD	NW-02-25	Total/NA	Solid	5030B	
280-37285-4	NW-02-37	Total/NA	Solid	5030B	
LCS 280-153984/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-153984/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 153993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
280-37285-2	NW-02-GW	Total/NA	Water	8260B	
280-37297-N-1 MS	Matrix Spike	Total/NA	Water	8260B	
280-37297-N-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 280-153993/23	Lab Control Sample	Total/NA	Water	8260B	
MB 280-153993/6	Method Blank	Total/NA	Water	8260B	

**GC/MS Semi VOA** 

Prep Batch: 153406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	3520C	
LCS 280-153406/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 280-153406/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 280-153406/1-A	Method Blank	Total/NA	Water	3520C	

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## **QC Association Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

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## GC/MS Semi VOA (Continued)

## Analysis Batch: 153874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	8270C	153406
LCS 280-153406/2-A	Lab Control Sample	Total/NA	Water	8270C	153406
LCSD 280-153406/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	153406
MB 280-153406/1-A	Method Blank	Total/NA	Water	8270C	153406

#### **GC Semi VOA**

## **Prep Batch: 153412**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	3546	
280-37285-1 MS	NW-02-O	Total/NA	Solid	3546	
280-37285-1 MSD	NW-02-O	Total/NA	Solid	3546	
280-37285-3	NW-02-25	Total/NA	Solid	3546	
280-37285-4	NW-02-37	Total/NA	Solid	3546	
LCS 280-153412/3-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-153412/1-A	Method Blank	Total/NA	Solid	3546	

### **Prep Batch: 153611**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	3546	
280-37285-3	NW-02-25	Total/NA	Solid	3546	
280-37285-4	NW-02-37	Total/NA	Solid	3546	
280-37307-A-1-B MS	Matrix Spike	Total/NA	Solid	3546	
280-37307-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
LCS 280-153611/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-153611/1-A	Method Blank	Total/NA	Solid	3546	

### **Prep Batch: 153862**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	8151A	
280-37285-3	NW-02-25	Total/NA	Solid	8151A	
280-37285-4	NW-02-37	Total/NA	Solid	8151A	
280-37307-A-1-I MS	Matrix Spike	Total/NA	Solid	8151A	
280-37307-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	
LCS 280-153862/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 280-153862/1-A	Method Blank	Total/NA	Solid	8151A	

### Analysis Batch: 154063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	8081A	153611
280-37285-3	NW-02-25	Total/NA	Solid	8081A	153611
280-37285-4	NW-02-37	Total/NA	Solid	8081A	153611

## Analysis Batch: 154261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-A-1-B MS	Matrix Spike	Total/NA	Solid	8081A	153611
280-37307-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8081A	153611
LCS 280-153611/2-A	Lab Control Sample	Total/NA	Solid	8081A	153611
MB 280-153611/1-A	Method Blank	Total/NA	Solid	8081A	153611

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

## GC Semi VOA (Continued)

## Analysis Batch: 154352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	8082	153412
280-37285-1 MS	NW-02-O	Total/NA	Solid	8082	153412
280-37285-1 MSD	NW-02-O	Total/NA	Solid	8082	153412
280-37285-3	NW-02-25	Total/NA	Solid	8082	153412
280-37285-4	NW-02-37	Total/NA	Solid	8082	153412
LCS 280-153412/3-A	Lab Control Sample	Total/NA	Solid	8082	153412
MB 280-153412/1-A	Method Blank	Total/NA	Solid	8082	153412

### Analysis Batch: 154361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	8151A	153862
280-37285-3	NW-02-25	Total/NA	Solid	8151A	153862
280-37285-4	NW-02-37	Total/NA	Solid	8151A	153862
280-37307-A-1-I MS	Matrix Spike	Total/NA	Solid	8151A	153862
280-37307-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	153862
LCS 280-153862/2-A	Lab Control Sample	Total/NA	Solid	8151A	153862
MB 280-153862/1-A	Method Blank	Total/NA	Solid	8151A	153862

### Metals

### **Prep Batch: 153434**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37267-K-1-B MS	Matrix Spike	Total/NA	Water	3010A	
280-37267-K-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
280-37285-2	NW-02-GW	Total/NA	Water	3010A	
LCS 280-153434/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-153434/1-A	Method Blank	Total/NA	Water	3010A	

## **Prep Batch: 153532**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	7470A	
280-37316-A-1-E MS	Matrix Spike	Total/NA	Water	7470A	
280-37316-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
LCS 280-153532/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-153532/1-A	Method Blank	Total/NA	Water	7470A	

## **Prep Batch: 153633**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	3050B	
280-37285-1 MS	NW-02-O	Total/NA	Solid	3050B	
280-37285-1 MSD	NW-02-O	Total/NA	Solid	3050B	
280-37285-3	NW-02-25	Total/NA	Solid	3050B	
280-37285-4	NW-02-37	Total/NA	Solid	3050B	
LCS 280-153633/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-153633/1-A	Method Blank	Total/NA	Solid	3050B	

### **Prep Batch: 153635**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Dissolved	Water	3005A	<del>_</del>
280-37307-D-4-C MS	Matrix Spike	Dissolved	Water	3005A	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

**Metals (Continued)** 

Prep	Batch:	153635	(Continued)
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-D-4-D MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	
LCS 280-153635/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 280-153635/1-A	Method Blank	Total Recoverable	Water	3005A	

### **Prep Batch: 153674**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	7471A	
280-37285-1 MS	NW-02-O	Total/NA	Solid	7471A	
280-37285-1 MSD	NW-02-O	Total/NA	Solid	7471A	
280-37285-3	NW-02-25	Total/NA	Solid	7471A	
280-37285-4	NW-02-37	Total/NA	Solid	7471A	
LCS 280-153674/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 280-153674/1-A	Method Blank	Total/NA	Solid	7471A	

### Analysis Batch: 153698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37267-K-1-B MS	Matrix Spike	Total/NA	Water	6010B	153434
280-37267-K-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	153434
280-37285-2	NW-02-GW	Total/NA	Water	6010B	153434
LCS 280-153434/2-A	Lab Control Sample	Total/NA	Water	6010B	153434
MB 280-153434/1-A	Method Blank	Total/NA	Water	6010B	153434

#### Analysis Batch: 153837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	7471A	153674
280-37285-1 MS	NW-02-O	Total/NA	Solid	7471A	153674
280-37285-1 MSD	NW-02-O	Total/NA	Solid	7471A	153674
280-37285-3	NW-02-25	Total/NA	Solid	7471A	153674
280-37285-4	NW-02-37	Total/NA	Solid	7471A	153674
LCS 280-153674/2-A	Lab Control Sample	Total/NA	Solid	7471A	153674
MB 280-153674/1-A	Method Blank	Total/NA	Solid	7471A	153674

## **Prep Batch: 154019**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Dissolved	Water	7470A	
280-37285-2 MS	NW-02-GW	Dissolved	Water	7470A	
280-37285-2 MSD	NW-02-GW	Dissolved	Water	7470A	
LCS 280-154019/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-154019/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 154037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	7470A	153532
280-37316-A-1-E MS	Matrix Spike	Total/NA	Water	7470A	153532
280-37316-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	153532
LCS 280-153532/2-A	Lab Control Sample	Total/NA	Water	7470A	153532
MB 280-153532/1-A	Method Blank	Total/NA	Water	7470A	153532

#### Analysis Batch: 154235

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	6010B	153633

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## **QC Association Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

## **Metals (Continued)**

## Analysis Batch: 154235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1 MS	NW-02-O	Total/NA	Solid	6010B	153633
280-37285-1 MSD	NW-02-O	Total/NA	Solid	6010B	153633
280-37285-3	NW-02-25	Total/NA	Solid	6010B	153633
280-37285-4	NW-02-37	Total/NA	Solid	6010B	153633
LCS 280-153633/2-A	Lab Control Sample	Total/NA	Solid	6010B	153633
MB 280-153633/1-A	Method Blank	Total/NA	Solid	6010B	153633

#### Analysis Batch: 154241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Dissolved	Water	7470A	154019
280-37285-2 MS	NW-02-GW	Dissolved	Water	7470A	154019
280-37285-2 MSD	NW-02-GW	Dissolved	Water	7470A	154019
LCS 280-154019/2-A	Lab Control Sample	Total/NA	Water	7470A	154019
MB 280-154019/1-A	Method Blank	Total/NA	Water	7470A	154019

### Analysis Batch: 154331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	6010B	153633
280-37285-1 MS	NW-02-O	Total/NA	Solid	6010B	153633
280-37285-1 MSD	NW-02-O	Total/NA	Solid	6010B	153633
280-37285-3	NW-02-25	Total/NA	Solid	6010B	153633
280-37285-4	NW-02-37	Total/NA	Solid	6010B	153633
LCS 280-153633/2-A	Lab Control Sample	Total/NA	Solid	6010B	153633
MB 280-153633/1-A	Method Blank	Total/NA	Solid	6010B	153633

### Analysis Batch: 154339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Dissolved	Water	6010B	153635
280-37307-D-4-C MS	Matrix Spike	Dissolved	Water	6010B	153635
280-37307-D-4-D MSD	Matrix Spike Duplicate	Dissolved	Water	6010B	153635
LCS 280-153635/2-A	Lab Control Sample	Total Recoverable	Water	6010B	153635
MB 280-153635/1-A	Method Blank	Total Recoverable	Water	6010B	153635

## **General Chemistry**

### Analysis Batch: 153547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2 DU	NW-02-GW	Total/NA	Water	9040C	
LCS 280-153547/42	Lab Control Sample	Total/NA	Water	9040C	
LCSD 280-153547/43	Lab Control Sample Dup	Total/NA	Water	9040C	

#### **Analysis Batch: 153758**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-1	NW-02-O	Total/NA	Solid	Moisture	
280-37285-3	NW-02-25	Total/NA	Solid	Moisture	
280-37285-4	NW-02-37	Total/NA	Solid	Moisture	
280-37358-A-1 DU	Duplicate	Total/NA	Solid	Moisture	

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## **QC Association Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-2

## **General Chemistry (Continued)**

## Analysis Batch: 153834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	SM 2540D	
280-37290-D-6 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 280-153834/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-153834/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 280-153834/3	Method Blank	Total/NA	Water	SM 2540D	

### **Prep Batch: 154167**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	1664A	
LCS 280-154167/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 280-154167/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 280-154167/1-A	Method Blank	Total/NA	Water	1664A	

## Analysis Batch: 154179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	9040C	
280-37417-B-2 DU	Duplicate	Total/NA	Water	9040C	
LCS 280-154179/4	Lab Control Sample	Total/NA	Water	9040C	
LCSD 280-154179/5	Lab Control Sample Dup	Total/NA	Water	9040C	

### Analysis Batch: 154181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	1664A	154167
LCS 280-154167/2-A	Lab Control Sample	Total/NA	Water	1664A	154167
LCSD 280-154167/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	154167
MB 280-154167/1-A	Method Blank	Total/NA	Water	1664A	154167

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-153850/1-A

Matrix: Solid

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 153854	МВ	МВ						Prep Batch:	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.57	J –	20	5.4	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
2-Butanone (MEK)	ND		20	1.8	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Benzene	ND		5.0	0.47			12/26/12 16:00	12/26/12 19:17	1
Chlorobenzene	ND		5.0	0.54			12/26/12 16:00	12/26/12 19:17	1
Carbon disulfide	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Cyclohexane	ND		5.0	0.40	ug/Kg		12/26/12 16:00	12/26/12 19:17	
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Bromomethane	ND		10	0.50	ug/Kg ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Bromoform	0.322		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	
	0.322 ND	J							
Chloroethane			10	0.89	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chloroform	ND		10		ug/Kg		12/26/12 16:00	12/26/12 19:17	1 
Chlorobromomethane	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Dichlorobromomethane	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chlorodibromomethane	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Isopropylbenzene	ND		5.0	0.59	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
2-Hexanone	ND		20	4.9	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chloromethane	ND		10	0.77	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Dichlorodifluoromethane	ND		10	0.52	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
trans-1,2-Dichloroethene	ND		2.5	0.39	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methylene Chloride	ND		5.0	1.6	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methyl acetate	ND		10	2.8	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methyl tert-butyl ether	ND		20	0.34	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
4-Methyl-2-pentanone (MIBK)	ND		20	4.4	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methylcyclohexane	ND		5.0	0.42	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Styrene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1,2,2-Tetrachloroethane	ND		5.0				12/26/12 16:00	12/26/12 19:17	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Toluene	ND		5.0	0.69	ug/Kg		12/26/12 16:00	12/26/12 19:17	
1,1,1-Trichloroethane	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1,2-Trichloroethane	ND		5.0	0.88	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Trichloroethene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	
1,1,2-Trichlorotrifluoroethane	ND		20				12/26/12 16:00	12/26/12 19:17	1
, ,					ug/Kg				
Vinyl chloride	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1 
m-Xylene & p-Xylene	ND		2.5		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
o-Xylene	ND		2.5	0.61	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Tetrachloroethene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,4-Dichlorobenzene	ND		5.0	0.78	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
cis-1,2-Dichloroethene	ND		2.5	0.56	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
cis-1,3-Dichloropropene	ND		5.0	1.3	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1-Dichloroethane	ND		5.0	0.21	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1-Dichloroethene	ND		5.0	0.59	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dichloroethane	ND		5.0	0.70	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dichloropropane	ND		5.0	0.55	ug/Kg		12/26/12 16:00	12/26/12 19:17	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153850/1-A

**Matrix: Solid** 

Analysis Batch: 153854

**Client Sample ID: Method Blank Prep Type: Total/NA** 

**Prep Batch: 153850** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		500	56	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Ethylbenzene	ND		5.0	0.67	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dibromoethane	ND		5.0	0.52	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Trichlorofluoromethane	ND		10	1.0	ug/Kg		12/26/12 16:00	12/26/12 19:17	1

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		58 - 140	12/26/12 16:00	12/26/12 19:17	1
Toluene-d8 (Surr)	97		80 - 126	12/26/12 16:00	12/26/12 19:17	1
4-Bromofluorobenzene (Surr)	96		76 - 127	12/26/12 16:00	12/26/12 19:17	1
Dibromofluoromethane (Surr)	113		75 - 121	12/26/12 16:00	12/26/12 19:17	1

Lab Sample ID: LCS 280-153850/2-A	ab Sample ID: LCS 280-153850/2-A						Client Sample ID: Lab Control Sample			
latrix: Solid							Prep Ty	pe: Total/NA		
Analysis Batch: 153854							Prep B	atch: 153850		
	Spike	LCS	LCS				%Rec.			
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Acetone	200	219		ug/Kg		109	65 - 150			
2-Butanone (MEK)	200	227		ug/Kg		113	45 - 177			

				_ ,		
Acetone	200	219	ug/Kg	109	65 _ 150	
2-Butanone (MEK)	200	227	ug/Kg	113	45 - 177	
Benzene	50.0	39.9	ug/Kg	80	75 _ 135	
Chlorobenzene	50.0	40.5	ug/Kg	81	78 - 135	
Carbon disulfide	50.0	29.5	ug/Kg	59	45 _ 150	
Carbon tetrachloride	50.0	40.3	ug/Kg	81	69 _ 138	
1,2-Dibromo-3-Chloropropane	50.0	43.4	ug/Kg	87	66 _ 150	
Bromomethane	50.0	43.2	ug/Kg	86	52 _ 135	
Bromoform	50.0	45.2	ug/Kg	90	77 - 135	
Chloroethane	50.0	40.0	ug/Kg	80	51 <sub>-</sub> 145	
Chloroform	50.0	39.4	ug/Kg	79	73 - 123	
Chlorobromomethane	50.0	44.0	ug/Kg	88	74 - 135	
Dichlorobromomethane	50.0	43.2	ug/Kg	86	73 _ 135	
Chlorodibromomethane	50.0	44.5	ug/Kg	89	77 - 135	
Isopropylbenzene	50.0	39.3	ug/Kg	79	74 _ 137	
2-Hexanone	200	215	ug/Kg	108	67 _ 150	
Chloromethane	50.0	41.2	ug/Kg	82	41 - 138	
Dichlorodifluoromethane	50.0	42.5	ug/Kg	85	32 _ 152	
trans-1,2-Dichloroethene	50.0	40.3	ug/Kg	81	77 - 135	
trans-1,3-Dichloropropene	50.0	44.8	ug/Kg	90	71 <sub>-</sub> 135	
Methylene Chloride	50.0	42.8	ug/Kg	86	76 - 136	
Methyl tert-butyl ether	50.0	47.6	ug/Kg	95	71 _ 141	
4-Methyl-2-pentanone (MIBK)	200	217	ug/Kg	108	69 _ 150	
Styrene	50.0	42.9	ug/Kg	86	76 - 135	
1,1,2,2-Tetrachloroethane	50.0	44.6	ug/Kg	89	65 _ 135	
1,2,3-Trichlorobenzene	50.0	42.4	ug/Kg	85	62 _ 135	
1,2,4-Trichlorobenzene	50.0	41.8	ug/Kg	84	65 _ 135	
Toluene	50.0	40.0	ug/Kg	80	77 _ 122	
1,1,1-Trichloroethane	50.0	41.6	ug/Kg	83	70 - 135	
1,1,2-Trichloroethane	50.0	42.5	ug/Kg	85	78 _ 135	
Trichloroethene	50.0	38.6	ug/Kg	77	77 _ 135	
Vinyl chloride	50.0	41.9	ug/Kg	84	43 _ 145	

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

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### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-153850/2-A

**Matrix: Solid** 

Analysis Batch: 153854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153850

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	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
m-Xylene & p-Xylene	100	79.7		ug/Kg		80	77 - 135
o-Xylene	50.0	41.0		ug/Kg		82	75 <sub>-</sub> 135
Tetrachloroethene	50.0	39.5		ug/Kg		79	76 <sub>-</sub> 135
1,2-Dichlorobenzene	50.0	41.7		ug/Kg		83	73 - 135
1,3-Dichlorobenzene	50.0	40.5		ug/Kg		81	69 _ 135
1,4-Dichlorobenzene	50.0	40.3		ug/Kg		81	73 - 135
cis-1,2-Dichloroethene	50.0	40.4		ug/Kg		81	76 <sub>-</sub> 135
cis-1,3-Dichloropropene	50.0	42.6		ug/Kg		85	71 <sub>-</sub> 135
1,1-Dichloroethane	50.0	41.0		ug/Kg		82	70 - 135
1,1-Dichloroethene	50.0	42.2		ug/Kg		84	79 <sub>-</sub> 135
1,2-Dichloroethane	50.0	44.0		ug/Kg		88	69 - 135
1,2-Dichloropropane	50.0	40.8		ug/Kg		82	72 <sub>-</sub> 121
Ethylbenzene	50.0	40.3		ug/Kg		81	73 - 125
1,2-Dibromoethane	50.0	42.7		ug/Kg		85	76 <sub>-</sub> 135
Trichlorofluoromethane	50.0	46.7		ug/Kg		93	48 _ 150

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		58 - 140
Toluene-d8 (Surr)	97		80 - 126
4-Bromofluorobenzene (Surr)	98		76 - 127
Dibromofluoromethane (Surr)	111		75 - 121

Lab Sample ID: 280-37262-F-5-C MS

**Matrix: Solid** 

Analysis Batch: 153854

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 153850

Analysis Batch. 100004									1 TCP Date	11. 100000
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	52	В	279	349		ug/Kg	*	106	65 - 150	
2-Butanone (MEK)	13	J	279	337		ug/Kg	₩	116	45 _ 177	
Benzene	ND		69.9	51.8	F	ug/Kg	₩	74	75 <sub>-</sub> 135	
Chlorobenzene	ND		69.9	45.5	F	ug/Kg	₩	65	78 <sub>-</sub> 135	
Carbon disulfide	ND		69.9	37.4		ug/Kg	₩	54	45 _ 150	
Carbon tetrachloride	ND		69.9	38.1	F	ug/Kg	₩	54	69 - 138	
1,2-Dibromo-3-Chloropropane	ND		69.9	55.7		ug/Kg	₩	80	66 _ 150	
Bromomethane	ND		69.9	53.3		ug/Kg	₩	76	52 <sub>-</sub> 135	
Bromoform	ND		69.9	47.2	F	ug/Kg	₩	68	77 _ 135	
Chloroethane	ND		69.9	52.6		ug/Kg	₽	75	51 <sub>-</sub> 145	
Chloroform	ND		69.9	55.5		ug/Kg	₩	79	73 - 123	
Chlorobromomethane	ND		69.9	58.5		ug/Kg	₩	84	74 _ 135	
Dichlorobromomethane	ND		69.9	50.8		ug/Kg	₩	73	73 - 135	
Chlorodibromomethane	ND		69.9	49.5	F	ug/Kg	₩	71	77 _ 135	
Isopropylbenzene	ND		69.9	48.2	F	ug/Kg	₩	69	74 - 137	
2-Hexanone	ND		279	304		ug/Kg	₩	109	67 _ 150	
Chloromethane	ND		69.9	54.4		ug/Kg	₩	78	41 - 138	
Dichlorodifluoromethane	ND		69.9	58.9		ug/Kg	₩	84	32 _ 152	
trans-1,2-Dichloroethene	ND		69.9	52.7	F	ug/Kg	₩	75	77 <sub>-</sub> 135	
trans-1,3-Dichloropropene	ND		69.9	51.3		ug/Kg	₩	73	71 <sub>-</sub> 135	
Methylene Chloride	ND		69.9	56.3		ug/Kg	₽	81	76 - 136	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37262-F-5-C MS

**Matrix: Solid** 

Analysis Batch: 153854

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 153850

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	ND		69.9	67.2		ug/Kg	*	96	71 - 141
4-Methyl-2-pentanone (MIBK)	ND		279	303		ug/Kg	₽	108	69 _ 150
Styrene	ND		69.9	45.0	F	ug/Kg	≎	64	76 - 135
1,1,2,2-Tetrachloroethane	ND		69.9	59.2		ug/Kg	₩	85	65 _ 135
1,2,3-Trichlorobenzene	ND		69.9	24.2	F	ug/Kg	≎	35	62 _ 135
1,2,4-Trichlorobenzene	ND		69.9	27.0	F	ug/Kg	₽	39	65 - 135
Toluene	ND		69.9	49.7	F	ug/Kg	₩	71	77 <sub>-</sub> 122
1,1,1-Trichloroethane	ND		69.9	56.4		ug/Kg	₩	81	70 - 135
1,1,2-Trichloroethane	ND		69.9	56.7		ug/Kg	₽	81	78 - 135
Trichloroethene	ND		69.9	48.9	F	ug/Kg	₩	70	77 <sub>-</sub> 135
Vinyl chloride	ND		69.9	52.9		ug/Kg	₽	76	43 - 145
m-Xylene & p-Xylene	ND		140	89.7	F	ug/Kg	₽	64	77 <sub>-</sub> 135
o-Xylene	ND		69.9	44.9	F	ug/Kg	₩	64	75 - 135
Tetrachloroethene	ND		69.9	45.6	F	ug/Kg	₽	65	76 - 135
1,2-Dichlorobenzene	ND		69.9	41.7	F	ug/Kg	₩	60	73 - 135
1,3-Dichlorobenzene	ND		69.9	41.6	F	ug/Kg	₽	60	69 - 135
1,4-Dichlorobenzene	ND		69.9	41.8	F	ug/Kg	₽	60	73 - 135
cis-1,2-Dichloroethene	ND		69.9	52.0	F	ug/Kg	₩	74	76 - 135
cis-1,3-Dichloropropene	ND		69.9	50.2		ug/Kg	₩	72	71 - 135
1,1-Dichloroethane	ND		69.9	56.1		ug/Kg	₽	80	70 - 135
1,1-Dichloroethene	ND		69.9	61.6		ug/Kg	₩	88	79 - 135
1,2-Dichloroethane	ND		69.9	55.7		ug/Kg	₩	80	69 - 135
1,2-Dichloropropane	ND		69.9	52.9		ug/Kg	₩	76	72 _ 121
Ethylbenzene	ND		69.9	46.6	F	ug/Kg	₩	67	73 _ 125
1,2-Dibromoethane	ND		69.9	52.7	F	ug/Kg	₩	75	76 - 135
Trichlorofluoromethane	ND		69.9	60.8		ug/Kg	≎	87	48 - 150

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101	-	58 - 140
Toluene-d8 (Surr)	88		80 - 126
4-Bromofluorobenzene (Surr)	86		76 - 127
Dibromofluoromethane (Surr)	103		75 - 121

Lab Sample ID: 280-37262-F-5-D MSD

**Matrix: Solid** 

Analysis Batch: 153854

<b>Client Sample ID: Matrix Spike Duplicate</b>
Prep Type: Total/NA

Prep Batch: 153850

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	52	В	280	291		ug/Kg	<del>\</del>	86	65 - 150	18	28
2-Butanone (MEK)	13	J	280	284		ug/Kg	₩	97	45 - 177	17	32
Benzene	ND		69.9	44.6	F	ug/Kg	₩	64	75 - 135	15	20
Chlorobenzene	ND		69.9	35.6	F	ug/Kg	₽	51	78 - 135	25	20
Carbon disulfide	ND		69.9	29.5	F	ug/Kg	≎	42	45 - 150	24	24
Carbon tetrachloride	ND		69.9	36.4	F	ug/Kg	₩	52	69 - 138	5	20
1,2-Dibromo-3-Chloropropane	ND		69.9	38.9	F	ug/Kg	*	56	66 - 150	36	28
Bromomethane	ND		69.9	45.3		ug/Kg	≎	65	52 - 135	16	22
Bromoform	ND		69.9	38.5	F	ug/Kg	₩	55	77 - 135	21	20
Chloroethane	ND		69.9	44.2		ug/Kg	*	63	51 - 145	17	22

TestAmerica Denver

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37262-F-5-D MSD

**Matrix: Solid** 

Analysis Batch: 153854

Trichlorofluoromethane

Client Sample ID: Matrix Spike Duplicate **Prep Type: Total/NA** 

**Prep Batch: 153850** 

Analyte         Result         Qualifier         Added         Result         Qualifier         Unit         D         Kep         Limits         RPD         Limits           Chlorodrom         ND         69.9         46.6         F         ug/Kg         0         67         73.123         17         20           Chlorodromomethane         ND         69.9         44.6         F         ug/Kg         0         60         77.135         17         20           Chlorodromomethane         ND         69.9         44.6         F         ug/Kg         0         60         77.135         17         20           Scopprojlysterace         ND         280         245         ug/Kg         0         67         67.150         22         22         22         24-exanone         ND         69.9         44.8         F         ug/Kg         0         66         41.138         10         22         22         22         22         24-exanone         ND         69.9         44.8         F         ug/Kg         0         66         47.135         17         20         12         12         12         22         28         12         12         12         1	Analysis Batch. 100004	Sample	Sample	Spike	MSD	MSD				%Rec.	Dateii. I	RPD
Chlorobromomethane ND 69.9 44.5 F ug/Kg 0 71 74.135 17 21 Dichlorobromomethane ND 69.9 44.6 F ug/Kg 0 64 73.135 13 20 Isopropylbenzene ND 69.9 41.9 F ug/Kg 0 60 77.135 17 20 Isopropylbenzene ND 69.9 41.9 F ug/Kg 0 60 77.135 17 20 Isopropylbenzene ND 69.9 42.7 F ug/Kg 0 60 77.135 17 20 Isopropylbenzene ND 69.9 42.5 Ug/Kg 0 64 71.137 4.137 4.7 20 2-Hexanone ND 69.9 46.3 ug/Kg 0 66 41.138 61 25 Dichlorodifluoromethane ND 69.9 46.3 ug/Kg 0 66 41.138 61 25 Dichlorodifluoromethane ND 69.9 44.8 F ug/Kg 0 64 77.135 17 20 Itrans-1.2-Dichloropropene ND 69.9 44.8 F ug/Kg 0 66 71.135 17 20 Itrans-1.2-Dichloropropene ND 69.9 42.3 F ug/Kg 0 67 71.135 17 20 Itrans-1.2-Dichloropropene ND 69.9 42.3 F ug/Kg 0 60 71.135 17 20 Itrans-1.2-Dichloropropene ND 69.9 42.3 F ug/Kg 0 79 71.141 19 20 Methylene Chloride ND 69.9 55.5 Ug/Kg 0 79 71.141 19 20 Methylene Chloride ND 69.9 55.5 Ug/Kg 0 79 71.141 19 20 Methylene Chloride ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 39.6 F ug/Kg 0 79 71.141 19 20 Itrans-1.2-Dichloropropene ND 69.9 41.5 F ug/Kg 0 79 71.151 51 20 Itrans-1.2-Dichloropropene ND 69.9 41.5 F ug/Kg 0 79 71.151 51 20 Itrans-1.2-Dichloropropene ND 69.9 41.5 F ug/Kg 0 79 71.151 51 20 Itrans-1.2-Dichloropropene ND 69.9 41.5 F ug/Kg 0 79 71.151 51 20 Itrans-1.2-Dichloropropene ND 69.9 41.5 F ug/Kg 0 79 71.151 51 20 Itrans-1.2-Dichloropropene ND 69.9 41.5 F ug/Kg 0 79 71.151 51 20 Itrans-1.2-Dichloropropene ND 69.9 41	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dichlorobromomethane   ND   69.9   44.6   F   ug/Kg   G   64   73.135   13   20   20   20   20   20   20   20   2	Chloroform	ND		69.9	46.6	F	ug/Kg	<del>-</del>	67	73 - 123	17	
Chlorodibromomethane ND 69.9 41.9 F Ug/Kg 60 77-135 17 20 Slopropylbenzene ND 69.9 29.7 F Ug/Kg 60 43 74-137 47 20 24-bexanone ND 69.9 46.5 Ug/Kg 60 47-136 67-160 22 28 Chloromethane ND 69.9 46.5 Ug/Kg 60 47-136 67-160 69.9 46.5 Ug/Kg 60 47-136 67-160 68-11-338 66-41-338 66-	Chlorobromomethane	ND		69.9	49.5	F	ug/Kg	₩	71	74 <sub>-</sub> 135	17	21
Sopropy Benzene   ND   69.9   29.7   F   ug/Kg   0   43   74.137   47   20   2 Hexanone   ND   280   245   ug/Kg   0   87   67.150   22   29   2 Chloromethane   ND   69.9   46.3   ug/Kg   0   68   32.152   22   28   2 trans-1.2-Dichloroethane   ND   69.9   47.3   ug/Kg   0   68   32.152   22   28   2 trans-1.2-Dichloroptopene   ND   69.9   44.6   F   ug/Kg   0   68   32.152   22   28   2 trans-1.3-Dichloroptopene   ND   69.9   44.6   F   ug/Kg   0   60   77.135   17   20   2 trans-1.3-Dichloroptopene   ND   69.9   48.0   F   ug/Kg   0   60   76.136   16   21   3 Methyl tert-butyl ether   ND   69.9   48.0   F   ug/Kg   0   69   76.136   16   21   3 Methyl tert-butyl ether   ND   69.9   34.3   F   ug/Kg   0   69   77.141   19   20   3 Hethyl tert-butyl ether   ND   69.9   34.3   F   ug/Kg   0   69   76.136   16   21   3 Ug/Kg   0   79   71.141   19   20   3 Ug/Kg   0   79   71.141   19   20   3 Ug/Kg   0   79   71.141   19   20   4 Hethyl-2-pentanone (MIBK)   ND   280   254   ug/Kg   0   91   69.150   18   25   3 Ug/Kg   0   79   71.141   19   20   4 Hethyl-2-pentanone (MIBK)   ND   69.9   34.3   F   ug/Kg   0   67   65.135   27   25   4 Ug/Kg   0   79   71.141   19   20   4 Hethyl-2-pentanone (MIBK)   ND   69.9   34.3   F   ug/Kg   0   57   65.135   40   21   4 L_2.3-Trichlorobenzene   ND   69.9   34.5   F   ug/Kg   0   21   62.135   49   31   4 L_2.4-Trichlorobenzene   ND   69.9   47.0   F   ug/Kg   0   65   77.135   17   20   4 Ug/Kg   0   0   0   0   0   0   0   0   0	Dichlorobromomethane	ND		69.9	44.6	F	ug/Kg	₩	64	73 _ 135	13	20
2-Hexanone ND 280 245 ug/Kg	Chlorodibromomethane	ND		69.9	41.9	F	ug/Kg	₩	60	77 - 135	17	20
Chloromethane  ND 69.9 46.3 Ug/Kg 66 41.138 16 25 Dichloromethane ND 69.9 47.3 Ug/Kg 68 32.152 22 28 Ratrans-1,2-Dichloroethene ND 69.9 44.6 F Ug/Kg 67 67.135 17 20 Methylene Chloride ND 69.9 42.3 F Ug/Kg 67 70.135 18 20 Methylene Chloride ND 69.9 42.3 F Ug/Kg 67 77.125 19 20 Methylene Chloride ND 69.9 42.3 F Ug/Kg 67 77.144 19 20 Methylene Chloride ND 69.9 48.0 F Ug/Kg 67 77.144 19 20 Methylene Chloride ND 69.9 48.0 F Ug/Kg 67 77.144 19 20 Methylene Chloride ND 69.9 43.3 F Ug/Kg 67 77.144 19 20 11.12,2-Trichloroethane ND 69.9 43.3 F Ug/Kg 67 76.135 40 21 11.2,2-Trichloroethane ND 69.9 40.6 F Ug/Kg 67 76.135 40 21 11.2,2-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 76.135 49 21 11.2,2-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.5 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 67 70.135 18 20 11.1,1-Trichloroethane ND 69.9 41.6 F Ug/Kg 68 78.135 17 20 17 11.1-Trichloroethane ND 69.9 41.6 F Ug/Kg 68 78.135 17 20 17 11.1-Trichloroethane ND 69.9 41.6 F Ug/Kg 68 78.135 17 20 17 11.1-Trichloroethane ND 69.9 41.6 F Ug/Kg 68 78.135 17 20 17 11.1-Trichloroethane ND 69.9 41.6 F Ug/Kg 68 78.135 17 20 17 17 18 20 18 20 20 20 20 20 20 20 20 20 20 20 20 20	Isopropylbenzene	ND		69.9	29.7	F	ug/Kg	₩	43	74 - 137	47	20
Dichlorodifluoromethane	2-Hexanone	ND		280	245		ug/Kg	₩	87	67 - 150	22	29
trans-1,2-Dichloroethene ND 69.9 44.6 F ug/Kg 64 77 - 135 17 20 trans-1,3-Dichloropropene ND 69.9 42.3 F ug/Kg 67 64 77 - 135 19 20 Methylene Chloride ND 69.9 42.3 F ug/Kg 67 67 1.141 19 20 40 Methylene Chloride ND 69.9 48.0 F ug/Kg 79 76 . 136 16 21 Methylene Chloride ND 69.9 55.5 ug/Kg 79 77 . 141 19 20 44 Methyl-2-pentanone (MIBK) ND 280 254 ug/Kg 79 71 . 141 19 20 44 Methyl-2-pentanone (MIBK) ND 69.9 34.3 F ug/Kg 79 11 69 . 150 18 25 Styrene ND 69.9 34.3 F ug/Kg 79 11 69 . 150 18 25 Styrene ND 69.9 34.3 F ug/Kg 70 49 76 . 135 27 20 11,2,2-Tetrachloroethane ND 69.9 39.6 F ug/Kg 70 57 65 . 135 49 31 1,2,4-Trichlorobenzene ND 69.9 16.0 F ug/Kg 70 21 62 . 135 49 31 1,2,4-Trichlorobenzene ND 69.9 16.0 F ug/Kg 70 23 65 . 135 51 26 Toluene ND 69.9 16.0 F ug/Kg 70 23 65 . 135 51 26 Toluene ND 69.9 17.1 14 17 16 10 10 10 10 11 11 11 11 11 11 11 11 11	Chloromethane	ND		69.9	46.3		ug/Kg	₩	66	41 - 138	16	25
trans-1,3-Dichloropropene  ND 69.9 42.3 F ug/Kg 60 71.135 19 20 Methylene Chloride ND 69.9 48.0 F ug/Kg 70 77 17.141 19 20 4-Methyl-2-pentanone (MIBK) ND 69.9 55.5 Ug/Kg 70 71 17.141 19 20 4-Methyl-2-pentanone (MIBK) ND 69.9 34.3 F ug/Kg 70 91 69.150 18 25 Styrene ND 69.9 34.3 F ug/Kg 70 91 69.150 18 25 Styrene ND 69.9 34.3 F ug/Kg 70 17.22-Tetrachlorobethane ND 69.9 34.3 F ug/Kg 70 17.22-Tetrachlorobethane ND 69.9 34.6 F ug/Kg 70 17.22-Tetrachlorobenzene ND 69.9 34.6 F ug/Kg 70 17.22-Tetrachlorobenzene ND 69.9 41.6 F ug/Kg 70 12.3 65.135 40 21 12.3-Trichlorobenzene ND 69.9 41.5 F ug/Kg 70 12.3 65.135 51 26 Tolluene ND 69.9 41.5 F ug/Kg 70 12.3 65.135 51 26 Tolluene ND 69.9 41.5 F ug/Kg 70 12.3 65.135 51 26 Tolluene ND 69.9 41.5 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 18 20 1,1-Trichloroethane ND 69.9 47.0 F ug/Kg 70 135 136 137 135 145 20 1,1-Trichloroethane ND 69.9 44.2 Ug/Kg 70 136 137 137 135 145 120 137 137 137 137 137 138 138 137 137 138 138 137 137 138 138 137 138 138 137 138 138 137 138 138 138 138 138 138 138 138 138 138	Dichlorodifluoromethane	ND		69.9	47.3		ug/Kg	₽	68	32 - 152	22	28
Methylene Chloride         ND         69.9         48.0         F         ug/Kg         69         76.136         16         21           Methyl tert-butyl ether         ND         69.9         55.5         ug/Kg         79         71.141         19         20           4-Methyl-2-pentanone (MIBK)         ND         69.9         34.3         F         ug/Kg         9         16.915         18         25           Styrene         ND         69.9         34.3         F         ug/Kg         9         76.135         27         20           1,1,2,2-Tetrachloroethane         ND         69.9         34.6         F         ug/Kg         9         21         62.135         49         31           1,2,2-Trichloroebazene         ND         69.9         41.6         F         ug/Kg         9         23         65.135         51         26           Toluene         ND         69.9         41.0         F         ug/Kg         9         77.125         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         9         77.135         18         20           1,1,1-Trichloroethane         ND<	trans-1,2-Dichloroethene	ND		69.9	44.6	F	ug/Kg	₽	64	77 - 135	17	20
Methyl tert-butyl ether	trans-1,3-Dichloropropene	ND		69.9	42.3	F	ug/Kg	₽	60	71 <sub>-</sub> 135	19	20
4-Methyl-2-pentanone (MIBK)         ND         280         254         ug/Kg         9 1         69 150         18         25           Styrene         ND         69.9         34.3         F         ug/Kg         9 49         76 - 135         27         20           1,1,2,2-Teitachloroethane         ND         69.9         34.6         F         ug/Kg         9 21         62 - 135         40         21           1,2,3-Trichlorobenzene         ND         69.9         16.0         F         ug/Kg         9 23         65 - 135         49         31           1,2,4-Trichlorobenzene         ND         69.9         41.5         F         ug/Kg         9 59         77 - 122         18         20           Toluene         ND         69.9         41.5         F         ug/Kg         59         77 - 122         18         20           1,1,1-Trichloroethane         ND         69.9         47.8         F         ug/Kg         59         77 - 122         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         68         78 - 135         17         20           Trichloroethane         ND	Methylene Chloride	ND		69.9	48.0	F	ug/Kg	₩	69	76 - 136	16	21
Styrene         ND         69.9         34.3         F         ug/Kg         0         49         76 - 135         27         20           1,1,2,2-Tetrachloroethane         ND         69.9         39.6         F         ug/Kg         0         57         65 - 135         40         21           1,2,3-Trichloroethane         ND         69.9         14.6         F         ug/Kg         0         21         62 - 135         49         31           1,2,4-Trichloroethane         ND         69.9         14.5         F         ug/Kg         0         59         77 - 122         18         20           1,1,1-Trichloroethane         ND         69.9         47.0         F         ug/Kg         0         67         70 - 135         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         0         68         78 - 135         17         20           Trichloroethane         ND         69.9         47.8         F         ug/Kg         0         68         77 - 135         18         20           Vinyl chloride         ND         69.9         44.2         ug/Kg         0         68 <t< td=""><td>Methyl tert-butyl ether</td><td>ND</td><td></td><td>69.9</td><td>55.5</td><td></td><td>ug/Kg</td><td>₽</td><td>79</td><td>71 - 141</td><td>19</td><td>20</td></t<>	Methyl tert-butyl ether	ND		69.9	55.5		ug/Kg	₽	79	71 - 141	19	20
1,1,2,2-Tetrachloroethane         ND         69.9         39.6         F         ug/Kg         5         65.135         40         21           1,2,3-Trichlorobenzene         ND         69.9         14.6         F         ug/Kg         2         21         62.135         49         31           1,2,4-Trichlorobenzene         ND         69.9         16.0         F         ug/Kg         2         30         65.135         51         26           Toluene         ND         69.9         41.5         F         ug/Kg         2         67         70.135         18         20           1,1,1-Trichloroethane         ND         69.9         47.0         F         ug/Kg         2         67         70.135         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         6         68         78.135         17         20           Trichloroethane         ND         69.9         44.2         ug/Kg         6         68         77.135         19         20           Vinyl chloride         ND         69.9         44.2         ug/Kg         6         48         77.135         18         20 <td>4-Methyl-2-pentanone (MIBK)</td> <td>ND</td> <td></td> <td>280</td> <td>254</td> <td></td> <td>ug/Kg</td> <td>₽</td> <td>91</td> <td>69 - 150</td> <td>18</td> <td>25</td>	4-Methyl-2-pentanone (MIBK)	ND		280	254		ug/Kg	₽	91	69 - 150	18	25
1,2,3-Trichlorobenzene         ND         69.9         14.6         F         ug/Kg         2         1         62 - 135         49         31           1,2,4-Trichlorobenzene         ND         69.9         16.0         F         ug/Kg         2         23         65 - 135         51         26           Toluene         ND         69.9         41.5         F         ug/Kg         2         59         77 - 122         18         20           1,1,1-Trichloroethane         ND         69.9         47.0         F         ug/Kg         2         67         70 - 135         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         2         68         78 - 135         17         20           Trichloroethane         ND         69.9         47.4         F         ug/Kg         2         58         77 - 135         18         20           Trichloroethane         ND         69.9         44.2         ug/Kg         2         68         78 - 135         17         20           Trichloroethane         ND         69.9         44.2         ug/Kg         2         49         75 - 135 <th< td=""><td>Styrene</td><td>ND</td><td></td><td>69.9</td><td>34.3</td><td>F</td><td>ug/Kg</td><td>₩</td><td>49</td><td>76 - 135</td><td>27</td><td>20</td></th<>	Styrene	ND		69.9	34.3	F	ug/Kg	₩	49	76 - 135	27	20
1,2,4-Trichlorobenzene         ND         69.9         16.0         F         ug/Kg         23         65-135         51         26           Toluene         ND         69.9         41.5         F         ug/Kg         59         77-122         18         20           1,1,1-Trichloroethane         ND         69.9         47.0         F         ug/Kg         5         67         70-135         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         5         67         70-135         18         20           1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         5         68         78-135         17         20           Trichloroethane         ND         69.9         40.4         F         ug/Kg         58         77-135         19         20           Vinyl chloride         ND         69.9         44.2         ug/Kg         63         43-145         18         24           vinyl chloride         ND         69.9         34.1         F         ug/Kg         48         77-135         28         20           v-ylene         ND	1,1,2,2-Tetrachloroethane	ND		69.9	39.6	F	ug/Kg	₽	57	65 _ 135	40	21
Tolluene ND 69.9 41.5 F ug/Kg 5 59 77.122 18 20 1,1.1-Trichloroethane ND 69.9 47.0 F ug/Kg 5 68 78.135 17 20 1,1.2-Trichloroethane ND 69.9 47.8 F ug/Kg 5 68 78.135 17 20 1,1.2-Trichloroethane ND 69.9 47.8 F ug/Kg 5 68 77.135 19 20 1,1.2-Trichloroethane ND 69.9 44.2 Ug/Kg 5 68 77.135 19 20 1,1.2-Trichloroethane ND 69.9 44.2 Ug/Kg 5 63 43.145 18 24 18 24 18 24 18 24 18 24 18 25 18 24 18 25	1,2,3-Trichlorobenzene	ND		69.9	14.6	F	ug/Kg	₩	21	62 - 135	49	31
1,1,1-Trichloroethane       ND       69.9       47.0       F       ug/Kg       67       70 - 135       18       20         1,1,2-Trichloroethane       ND       69.9       47.8       F       ug/Kg       68       78 - 135       17       20         Trichloroethane       ND       69.9       40.4       F       ug/Kg       58       77 - 135       19       20         Vinyl chloride       ND       69.9       44.2       ug/Kg       63       43 - 145       18       24         m-Xylene & p-Xylene       ND       140       67.7       F       ug/Kg       63       43 - 145       18       24         m-Xylene & p-Xylene       ND       140       67.7       F       ug/Kg       64       77 - 135       28       20         o-Xylene       ND       69.9       34.1       F       ug/Kg       49       75 - 135       27       20         Tetrachloroethene       ND       69.9       35.6       F       ug/Kg       38       73 - 135       46       20         1,2-Dichlorobenzene       ND       69.9       26.2       F       ug/Kg       38       73 - 135       45       22	1,2,4-Trichlorobenzene	ND		69.9	16.0	F	ug/Kg	₽	23	65 - 135	51	26
1,1,2-Trichloroethane         ND         69.9         47.8         F         ug/Kg         68         78 - 135         17         20           Trichloroethane         ND         69.9         40.4         F         ug/Kg         58         77 - 135         19         20           Vinyl chloride         ND         69.9         44.2         ug/Kg         63         43 - 145         18         24           m-Xylene & p-Xylene         ND         140         67.7         F         ug/Kg         48         77 - 135         28         20           o-Xylene         ND         69.9         34.1         F         ug/Kg         49         75 - 135         27         20           Tetrachloroethene         ND         69.9         35.6         F         ug/Kg         49         75 - 135         27         20           Tetrachloroethene         ND         69.9         35.6         F         ug/Kg         51         76 - 135         25         20           1,2-Dichlorobenzene         ND         69.9         26.2         F         ug/Kg         38         73 - 135         45         20           1,4-Dichloroethane         ND         69.9         42.	Toluene	ND		69.9	41.5	F	ug/Kg	₽	59	77 - 122	18	20
Trichloroethene ND 69.9 40.4 F ug/Kg 5 58 77 - 135 19 20 Vinyl chloride ND 69.9 44.2 ug/Kg 5 63 43 - 145 18 24 m-Xylene & p-Xylene ND 140 67.7 F ug/Kg 5 48 77 - 135 28 20 o-Xylene ND 69.9 34.1 F ug/Kg 5 63 43 - 145 25 27 20 Tetrachloroethene ND 69.9 35.6 F ug/Kg 5 51 76 - 135 25 20 1,2-Dichlorobenzene ND 69.9 26.3 F ug/Kg 5 38 73 - 135 46 20 1,3-Dichlorobenzene ND 69.9 26.2 F ug/Kg 5 38 69 - 135 45 20 1,4-Dichlorobenzene ND 69.9 26.3 F ug/Kg 5 38 73 - 135 45 20 1,4-Dichlorobenzene ND 69.9 44.2 F ug/Kg 5 38 73 - 135 16 20 cis-1,3-Dichloropenee ND 69.9 40.4 F ug/Kg 5 7 7 135 22 20 1,1-Dichloroethene ND 69.9 47.3 F ug/Kg 5 7 7 135 22 20 1,1-Dichloroethene ND 69.9 47.3 F ug/Kg 5 7 7 9 135 17 20 1,1-Dichloroethene ND 69.9 47.1 F ug/Kg 5 64 72 121 16 20 1,2-Dichloropopane ND 69.9 44.9 F ug/Kg 5 64 72 121 16 20 Ethylbenzene ND 69.9 34.9 F ug/Kg 5 73 - 125 29 20 20	1,1,1-Trichloroethane	ND		69.9	47.0	F	ug/Kg	₽	67	70 - 135	18	20
ND 69.9 44.2 ug/Kg 63 43 - 145 18 24 m-Xylene & p-Xylen	1,1,2-Trichloroethane	ND		69.9	47.8	F	ug/Kg	₽	68	78 <sub>-</sub> 135	17	20
m-Xylene & p-Xylene  ND  140  67.7 F  ug/Kg  48  77 - 135  28  20  c-Xylene  ND  69.9  34.1 F  ug/Kg  51  76 - 135  27  20  Tetrachloroethene  ND  69.9  35.6 F  ug/Kg  51  76 - 135  25  20  1,2-Dichlorobenzene  ND  69.9  26.3 F  ug/Kg  38  73 - 135  46  20  1,3-Dichlorobenzene  ND  69.9  26.2 F  ug/Kg  38  69 - 135  45  20  1,4-Dichlorobenzene  ND  69.9  26.3 F  ug/Kg  38  73 - 135  45  20  1,4-Dichlorobenzene  ND  69.9  26.3 F  ug/Kg  38  73 - 135  45  20  1,4-Dichlorobenzene  ND  69.9  26.3 F  ug/Kg  38  73 - 135  45  20  1,4-Dichlorobenzene  ND  69.9  44.2 F  ug/Kg  38  73 - 135  45  22  26  1,1-Dichloropropene  ND  69.9  40.4 F  ug/Kg  38  71 - 135  22  20  1,1-Dichloroethane  ND  69.9  47.3 F  ug/Kg  48  77 - 135  27  20  1,1-Dichloroethane  ND  69.9  47.3 F  ug/Kg  48  70 - 135  17  20  1,2-Dichloroethane  ND  69.9  47.1 F  ug/Kg  48  74  79 - 135  17  20  1,2-Dichloroethane  ND  69.9  47.1 F  ug/Kg  48  77 - 135  28  20  1,2-Dichloropropane  ND  69.9  47.1 F  ug/Kg  48  77 - 135  28  20  1,2-Dichloropropane  ND  69.9  47.1 F  ug/Kg  49  75 - 135  76 - 135  76 - 135  76 - 135  76 - 135  76 - 135  77 - 135  78 - 135  78 - 135  79 - 135  70 - 1	Trichloroethene	ND		69.9	40.4	F	ug/Kg	₽	58	77 - 135	19	20
o-Xylene ND 69.9 34.1 F ug/Kg 49 75 - 135 27 20 Tetrachloroethene ND 69.9 35.6 F ug/Kg 51 76 - 135 25 20 1,2-Dichlorobenzene ND 69.9 26.3 F ug/Kg 38 73 - 135 46 20 1,3-Dichlorobenzene ND 69.9 26.3 F ug/Kg 38 69 - 135 45 20 1,4-Dichlorobenzene ND 69.9 26.3 F ug/Kg 38 69 - 135 45 20 1,4-Dichlorobenzene ND 69.9 26.3 F ug/Kg 38 73 - 135 45 22 cis-1,2-Dichloroethene ND 69.9 44.2 F ug/Kg 63 76 - 135 16 20 cis-1,3-Dichloropropene ND 69.9 40.4 F ug/Kg 58 71 - 135 22 20 1,1-Dichloroethane ND 69.9 47.3 F ug/Kg 58 70 - 135 17 20 1,1-Dichloroethane ND 69.9 47.1 F ug/Kg 68 70 - 135 17 20 1,2-Dichloroethane ND 69.9 47.1 F ug/Kg 67 69 - 135 17 20 1,2-Dichloroethane ND 69.9 44.9 F ug/Kg 50 73 - 125 29 20 Ethylbenzene ND 69.9 34.9 F ug/Kg 50 73 - 125 29 20	Vinyl chloride	ND		69.9	44.2		ug/Kg	₽	63	43 - 145	18	24
Tetrachloroethene ND 69.9 35.6 F ug/Kg 51 76 - 135 25 20 1,2-Dichlorobenzene ND 69.9 26.3 F ug/Kg 38 73 - 135 46 20 1,3-Dichlorobenzene ND 69.9 26.2 F ug/Kg 38 69 - 135 45 20 1,4-Dichlorobenzene ND 69.9 26.3 F ug/Kg 38 69 - 135 45 22 cis-1,2-Dichloroethene ND 69.9 44.2 F ug/Kg 38 73 - 135 16 20 cis-1,3-Dichloropropene ND 69.9 44.2 F ug/Kg 58 71 - 135 22 20 1,1-Dichloroethane ND 69.9 47.3 F ug/Kg 58 71 - 135 22 20 1,1-Dichloroethane ND 69.9 47.3 F ug/Kg 58 70 - 135 17 20 1,2-Dichloroethane ND 69.9 47.1 F ug/Kg 57 74 79 - 135 17 20 1,2-Dichloroethane ND 69.9 47.1 F ug/Kg 57 67 69 - 135 17 20 1,2-Dichloroethane ND 69.9 47.1 F ug/Kg 57 67 69 - 135 17 20 1,2-Dichloropropane ND 69.9 44.9 F ug/Kg 50 73 - 125 29 20 Ethylbenzene ND 69.9 34.9 F ug/Kg 50 73 - 125 29 20	m-Xylene & p-Xylene	ND		140	67.7	F	ug/Kg	₽	48	77 - 135	28	20
1,2-Dichlorobenzene       ND       69.9       26.3       F       ug/Kg       38       73 - 135       46       20         1,3-Dichlorobenzene       ND       69.9       26.2       F       ug/Kg       38       69 - 135       45       20         1,4-Dichlorobenzene       ND       69.9       26.3       F       ug/Kg       38       73 - 135       45       22         cis-1,2-Dichloroethene       ND       69.9       44.2       F       ug/Kg       63       76 - 135       16       20         cis-1,3-Dichloropropene       ND       69.9       40.4       F       ug/Kg       58       71 - 135       22       20         1,1-Dichloroethane       ND       69.9       47.3       F       ug/Kg       68       70 - 135       17       20         1,2-Dichloroethane       ND       69.9       51.7       F       ug/Kg       74       79 - 135       17       20         1,2-Dichloropropane       ND       69.9       47.1       F       ug/Kg       67       69 - 135       17       20         1,2-Dichloropropane       ND       69.9       44.9       F       ug/Kg       64       72 - 121       16	o-Xylene	ND		69.9	34.1	F	ug/Kg	₽	49	75 <sub>-</sub> 135	27	20
1,3-Dichlorobenzene       ND       69.9       26.2       F       ug/Kg       38       69 - 135       45       20         1,4-Dichlorobenzene       ND       69.9       26.3       F       ug/Kg       38       73 - 135       45       22         cis-1,2-Dichloroethene       ND       69.9       44.2       F       ug/Kg       63       76 - 135       16       20         cis-1,3-Dichloropropene       ND       69.9       40.4       F       ug/Kg       58       71 - 135       22       20         1,1-Dichloroethane       ND       69.9       47.3       F       ug/Kg       68       70 - 135       17       20         1,2-Dichloroethane       ND       69.9       51.7       F       ug/Kg       74       79 - 135       17       20         1,2-Dichloroethane       ND       69.9       47.1       F       ug/Kg       67       69 - 135       17       20         1,2-Dichloropropane       ND       69.9       44.9       F       ug/Kg       64       72 - 121       16       20         Ethylbenzene       ND       69.9       34.9       F       ug/Kg       50       73 - 125       29       20<	Tetrachloroethene	ND		69.9	35.6	F	ug/Kg	₽	51	76 <sub>-</sub> 135	25	20
1,4-Dichlorobenzene       ND       69.9       26.3       F       ug/Kg       38       73 - 135       45       22         cis-1,2-Dichloroethene       ND       69.9       44.2       F       ug/Kg       63       76 - 135       16       20         cis-1,3-Dichloropropene       ND       69.9       40.4       F       ug/Kg       58       71 - 135       22       20         1,1-Dichloroethane       ND       69.9       47.3       F       ug/Kg       68       70 - 135       17       20         1,1-Dichloroethane       ND       69.9       51.7       F       ug/Kg       74       79 - 135       17       20         1,2-Dichloroethane       ND       69.9       47.1       F       ug/Kg       67       69 - 135       17       20         1,2-Dichloropropane       ND       69.9       47.1       F       ug/Kg       67       69 - 135       17       20         Ethylbenzene       ND       69.9       34.9       F       ug/Kg       50       73 - 125       29       20	1,2-Dichlorobenzene	ND		69.9	26.3	F	ug/Kg	₽	38	73 - 135	46	20
cis-1,2-Dichloroethene       ND       69.9       44.2       F       ug/Kg       63       76 - 135       16       20         cis-1,3-Dichloropropene       ND       69.9       40.4       F       ug/Kg       58       71 - 135       22       20         1,1-Dichloroethane       ND       69.9       47.3       F       ug/Kg       68       70 - 135       17       20         1,1-Dichloroethane       ND       69.9       51.7       F       ug/Kg       74       79 - 135       17       20         1,2-Dichloroethane       ND       69.9       47.1       F       ug/Kg       67       69 - 135       17       20         1,2-Dichloropropane       ND       69.9       44.9       F       ug/Kg       64       72 - 121       16       20         Ethylbenzene       ND       69.9       34.9       F       ug/Kg       50       73 - 125       29       20	1,3-Dichlorobenzene	ND		69.9	26.2	F	ug/Kg	₽	38	69 - 135	45	20
cis-1,3-Dichloropropene     ND     69.9     40.4     F     ug/Kg     58     71 - 135     22     20       1,1-Dichloroethane     ND     69.9     47.3     F     ug/Kg     68     70 - 135     17     20       1,1-Dichloroethane     ND     69.9     51.7     F     ug/Kg     74     79 - 135     17     20       1,2-Dichloroethane     ND     69.9     47.1     F     ug/Kg     67     69 - 135     17     20       1,2-Dichloropropane     ND     69.9     44.9     F     ug/Kg     64     72 - 121     16     20       Ethylbenzene     ND     69.9     34.9     F     ug/Kg     50     73 - 125     29     20	1,4-Dichlorobenzene	ND		69.9	26.3	F	ug/Kg	₽	38	73 - 135	45	22
1,1-Dichloroethane       ND       69.9       47.3       F       ug/Kg       68       70 - 135       17       20         1,1-Dichloroethane       ND       69.9       51.7       F       ug/Kg       74       79 - 135       17       20         1,2-Dichloroethane       ND       69.9       47.1       F       ug/Kg       67       69 - 135       17       20         1,2-Dichloropropane       ND       69.9       44.9       F       ug/Kg       64       72 - 121       16       20         Ethylbenzene       ND       69.9       34.9       F       ug/Kg       50       73 - 125       29       20	cis-1,2-Dichloroethene	ND		69.9	44.2	F	ug/Kg	₽	63	76 - 135	16	20
1,1-Dichloroethene     ND     69.9     51.7     F     ug/Kg     A     74     79 - 135     17     20       1,2-Dichloroethane     ND     69.9     47.1     F     ug/Kg     67     69 - 135     17     20       1,2-Dichloropropane     ND     69.9     44.9     F     ug/Kg     64     72 - 121     16     20       Ethylbenzene     ND     69.9     34.9     F     ug/Kg     50     73 - 125     29     20	cis-1,3-Dichloropropene	ND		69.9	40.4	F	ug/Kg	₽	58	71 <sub>-</sub> 135	22	20
1,2-Dichloroethane     ND     69.9     47.1     F     ug/Kg     \$\beta\$     67     69 - 135     17     20       1,2-Dichloropropane     ND     69.9     44.9     F     ug/Kg     \$\beta\$     64     72 - 121     16     20       Ethylbenzene     ND     69.9     34.9     F     ug/Kg     \$\beta\$     50     73 - 125     29     20	1,1-Dichloroethane	ND		69.9	47.3	F	ug/Kg	₽	68	70 - 135	17	20
1,2-Dichloropropane ND 69.9 44.9 F ug/Kg 64 72 - 121 16 20 Ethylbenzene ND 69.9 34.9 F ug/Kg 50 73 - 125 29 20	1,1-Dichloroethene	ND		69.9	51.7	F	ug/Kg	₽	74	79 <sub>-</sub> 135	17	20
Ethylbenzene ND 69.9 34.9 F ug/Kg 50 73 - 125 29 20	1,2-Dichloroethane	ND		69.9	47.1	F	ug/Kg	₽	67	69 - 135	17	20
24,556,2516	1,2-Dichloropropane	ND		69.9	44.9	F	ug/Kg	₽	64	72 - 121	16	20
1,2-Dibromoethane ND 69.9 42.2 F $ug/Kg$ $\overset{\triangle}{}$ 60 76 - 135 22 20	Ethylbenzene	ND		69.9	34.9	F	ug/Kg	₽	50	73 _ 125	29	20
	1,2-Dibromoethane	ND		69.9	42.2	F	ug/Kg	₽	60	76 - 135	22	20

SD	MSD

ND

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		58 - 140
Toluene-d8 (Surr)	68	X	80 - 126
4-Bromofluorobenzene (Surr)	57	X	76 - 127
Dibromofluoromethane (Surr)	87		75 - 121

69.9

47.8

ug/Kg

68

48 - 150

24

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153984/1-A

Matrix: Solid

Analysis Batch: 153976

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 153984

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	5.4	ug/Kg		12/27/12 16:00	12/27/12 22:30	
2-Butanone (MEK)	ND		20	1.8	ug/Kg		12/27/12 16:00	12/27/12 22:30	
Benzene	ND		5.0	0.47	ug/Kg		12/27/12 16:00	12/27/12 22:30	•
Chlorobenzene	ND		5.0	0.54	ug/Kg		12/27/12 16:00	12/27/12 22:30	•
Carbon disulfide	0.431	J	5.0	0.42	ug/Kg		12/27/12 16:00	12/27/12 22:30	•
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		12/27/12 16:00	12/27/12 22:30	•
Cyclohexane	ND		5.0	0.40	ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		12/27/12 16:00	12/27/12 22:30	
Bromomethane	ND		10	0.50	ug/Kg		12/27/12 16:00	12/27/12 22:30	
Bromoform	ND		5.0	0.23	ug/Kg		12/27/12 16:00	12/27/12 22:30	,
Chloroethane	ND		10	0.89	ug/Kg		12/27/12 16:00	12/27/12 22:30	
Chloroform	ND		10	0.29	ug/Kg		12/27/12 16:00	12/27/12 22:30	
Chlorobromomethane	ND		5.0	0.30	ug/Kg		12/27/12 16:00	12/27/12 22:30	· · · · · · · · ·
Dichlorobromomethane	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Chlorodibromomethane	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Isopropylbenzene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	,
2-Hexanone	5.02	J	20		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Chloromethane	ND		10		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Dichlorodifluoromethane	ND		10		ug/Kg		12/27/12 16:00	12/27/12 22:30	
trans-1,2-Dichloroethene	ND		2.5		ug/Kg		12/27/12 16:00	12/27/12 22:30	
trans-1,3-Dichloropropene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Methylene Chloride	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	,
Methyl acetate	ND		10		ug/Kg ug/Kg		12/27/12 16:00	12/27/12 22:30	
Methyl tert-butyl ether	ND		20		ug/Kg ug/Kg		12/27/12 16:00	12/27/12 22:30	,
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg		12/27/12 16:00	12/27/12 22:30	,
Methylcyclohexane	ND ND		5.0		ug/Kg ug/Kg		12/27/12 16:00	12/27/12 22:30	
Styrene	ND		5.0		ug/Kg ug/Kg		12/27/12 16:00	12/27/12 22:30	
								12/27/12 22:30	,
1,1,2,2-Tetrachloroethane	ND ND		5.0 5.0		ug/Kg ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,2,3-Trichlorobenzene							12/27/12 16:00		
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Toluene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	•
1,1,1-Trichloroethane	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,1,2-Trichloroethane	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
Trichloroethene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,1,2-Trichlorotrifluoroethane	ND		20		ug/Kg		12/27/12 16:00	12/27/12 22:30	ĺ
Vinyl chloride	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	· ·
m-Xylene & p-Xylene	ND		2.5		ug/Kg		12/27/12 16:00	12/27/12 22:30	•
o-Xylene	ND		2.5		ug/Kg		12/27/12 16:00	12/27/12 22:30	,
Tetrachloroethene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,2-Dichlorobenzene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	•
1,3-Dichlorobenzene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	•
1,4-Dichlorobenzene	ND		5.0		ug/Kg		12/27/12 16:00	12/27/12 22:30	
cis-1,2-Dichloroethene	ND		2.5	0.56	ug/Kg		12/27/12 16:00	12/27/12 22:30	,
cis-1,3-Dichloropropene	ND		5.0	1.3	ug/Kg		12/27/12 16:00	12/27/12 22:30	,
1,1-Dichloroethane	ND		5.0	0.21	ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,1-Dichloroethene	ND		5.0	0.59	ug/Kg		12/27/12 16:00	12/27/12 22:30	
1,2-Dichloroethane	ND		5.0	0.70	ug/Kg		12/27/12 16:00	12/27/12 22:30	•
1,2-Dichloropropane	ND		5.0	0.55	ug/Kg		12/27/12 16:00	12/27/12 22:30	

TestAmerica Denver

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1/8/2013

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153984/1-A

Lab Sample ID: LCS 280-153984/2-A

**Matrix: Solid** 

Analysis Batch: 153976

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 153984

	1410	W.D							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		500	56	ug/Kg		12/27/12 16:00	12/27/12 22:30	1
Ethylbenzene	ND		5.0	0.67	ug/Kg		12/27/12 16:00	12/27/12 22:30	1
1,2-Dibromoethane	ND		5.0	0.52	ug/Kg		12/27/12 16:00	12/27/12 22:30	1
Trichlorofluoromethane	ND		10	1.0	ug/Kg		12/27/12 16:00	12/27/12 22:30	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		58 - 140	-	12/27/12 16:00	12/27/12 22:30	1
Toluene-d8 (Surr)	110		80 - 126		12/27/12 16:00	12/27/12 22:30	1
4-Bromofluorobenzene (Surr)	108		76 - 127		12/27/12 16:00	12/27/12 22:30	1
Dibromofluoromethane (Surr)	91		75 - 121		12/27/12 16:00	12/27/12 22:30	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Matrix: Solid					Onem	· Oampie	Prep Type: Total/N
Analysis Batch: 153976							Prep Batch: 15398
	Spike		LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Acetone	200	215		ug/Kg		107	65 - 150
2-Butanone (MEK)	200	286		ug/Kg		143	45 - 177
Benzene	50.0	48.8		ug/Kg		98	75 - 135
Chlorobenzene	50.0	50.1		ug/Kg		100	78 - 135
Carbon disulfide	50.0	43.2		ug/Kg		86	45 - 150
Carbon tetrachloride	50.0	49.0		ug/Kg		98	69 - 138
1,2-Dibromo-3-Chloropropane	50.0	56.9		ug/Kg		114	66 - 150
Bromomethane	50.0	39.8		ug/Kg		80	52 _ 135
Bromoform	50.0	52.2		ug/Kg		104	77 - 135
Chloroethane	50.0	37.5		ug/Kg		75	51 - 145
Chloroform	50.0	48.4		ug/Kg		97	73 - 123
Chlorobromomethane	50.0	47.0		ug/Kg		94	74 - 135
Dichlorobromomethane	50.0	55.4		ug/Kg		111	73 - 135
Chlorodibromomethane	50.0	60.8		ug/Kg		122	77 - 135
Isopropylbenzene	50.0	51.8		ug/Kg		104	74 - 137
2-Hexanone	200	231		ug/Kg		116	67 - 150
Chloromethane	50.0	42.6		ug/Kg		85	41 - 138
Dichlorodifluoromethane	50.0	36.1		ug/Kg		72	32 - 152
trans-1,2-Dichloroethene	50.0	44.5		ug/Kg		89	77 - 135
trans-1,3-Dichloropropene	50.0	55.1		ug/Kg		110	71 <sub>-</sub> 135
Methylene Chloride	50.0	49.5		ug/Kg		99	76 <sub>-</sub> 136
Methyl tert-butyl ether	50.0	42.6		ug/Kg		85	71 - 141
4-Methyl-2-pentanone (MIBK)	200	228		ug/Kg		114	69 _ 150
Styrene	50.0	48.3		ug/Kg		97	76 - 135
1,1,2,2-Tetrachloroethane	50.0	59.8		ug/Kg		120	65 _ 135
1,2,3-Trichlorobenzene	50.0	46.3		ug/Kg		93	62 _ 135
1,2,4-Trichlorobenzene	50.0	45.7		ug/Kg		91	65 <sub>-</sub> 135
Toluene	50.0	48.6		ug/Kg		97	77 - 122
1,1,1-Trichloroethane	50.0	44.9		ug/Kg		90	70 - 135
1,1,2-Trichloroethane	50.0	50.3		ug/Kg		101	78 <sub>-</sub> 135
Trichloroethene	50.0	48.0		ug/Kg		96	77 - 135
Vinyl chloride	50.0	36.0		ug/Kg		72	43 - 145

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-153984/2-A

**Matrix: Solid** 

Analysis Batch: 153976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153984

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	100	95.7	-	ug/Kg		96	77 _ 135	
o-Xylene	50.0	48.0		ug/Kg		96	75 <sub>-</sub> 135	
Tetrachloroethene	50.0	50.1		ug/Kg		100	76 <sub>-</sub> 135	
1,2-Dichlorobenzene	50.0	49.6		ug/Kg		99	73 - 135	
1,3-Dichlorobenzene	50.0	49.1		ug/Kg		98	69 _ 135	
1,4-Dichlorobenzene	50.0	49.4		ug/Kg		99	73 - 135	
cis-1,2-Dichloroethene	50.0	45.9		ug/Kg		92	76 <sub>-</sub> 135	
cis-1,3-Dichloropropene	50.0	63.2		ug/Kg		126	71 <sub>-</sub> 135	
1,1-Dichloroethane	50.0	47.5		ug/Kg		95	70 - 135	
1,1-Dichloroethene	50.0	54.4		ug/Kg		109	79 <sub>-</sub> 135	
1,2-Dichloroethane	50.0	52.4		ug/Kg		105	69 - 135	
1,2-Dichloropropane	50.0	53.2		ug/Kg		106	72 _ 121	
Ethylbenzene	50.0	48.7		ug/Kg		97	73 - 125	
1,2-Dibromoethane	50.0	55.5		ug/Kg		111	76 <sub>-</sub> 135	
Trichlorofluoromethane	50.0	34.8		ug/Kg		70	48 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		58 - 140
Toluene-d8 (Surr)	106		80 - 126
4-Bromofluorobenzene (Surr)	106		76 - 127
Dibromofluoromethane (Surr)	91		75 - 121

Lab Sample ID: 280-37285-3 MS

**Matrix: Solid** 

Analysis Batch: 153976

Client Sample ID: NW-02-25 Prep Type: Total/NA Prep Batch: 153984

Sample	Sample	Spike	Me					a. =	
		Spike	IVIO	MS				%Rec.	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
ND		226	203		ug/Kg	*	90	65 - 150	
ND		226	398		ug/Kg	₩	176	45 _ 177	
ND		56.6	48.6		ug/Kg	₩	86	75 - 135	
ND		56.6	47.0		ug/Kg	₩	83	78 <sub>-</sub> 135	
ND		56.6	38.1		ug/Kg	₩	67	45 _ 150	
ND		56.6	49.8		ug/Kg	₩	88	69 - 138	
ND		56.6	54.4		ug/Kg	₩	96	66 _ 150	
ND		56.6	38.1		ug/Kg	₩	67	52 - 135	
ND		56.6	50.1		ug/Kg	₩	88	77 <sub>-</sub> 135	
ND		56.6	34.1		ug/Kg	₩	60	51 <sub>-</sub> 145	
ND		56.6	47.7		ug/Kg	₩	84	73 - 123	
ND		56.6	50.6		ug/Kg	₩	89	74 _ 135	
ND		56.6	53.6		ug/Kg	₩	95	73 - 135	
ND		56.6	58.7		ug/Kg	₩	104	77 <sub>-</sub> 135	
ND		56.6	46.4		ug/Kg	₩	82	74 - 137	
ND		226	191		ug/Kg	₩	84	67 <sub>-</sub> 150	
ND		56.6	40.9		ug/Kg	₩	72	41 _ 138	
ND		56.6	33.8		ug/Kg	₩	60	32 _ 152	
ND		56.6	45.0		ug/Kg	₩	80	77 <sub>-</sub> 135	
ND		56.6	51.1		ug/Kg	₩	90	71 <sub>-</sub> 135	
ND		56.6	49.7		ug/Kg	₩	88	76 - 136	
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND       226         ND       226         ND       56.6	ND         226         203           ND         226         398           ND         56.6         48.6           ND         56.6         47.0           ND         56.6         38.1           ND         56.6         49.8           ND         56.6         54.4           ND         56.6         38.1           ND         56.6         50.1           ND         56.6         34.1           ND         56.6         47.7           ND         56.6         50.6           ND         56.6         53.6           ND         56.6         58.7           ND         56.6         46.4           ND         226         191           ND         56.6         40.9           ND         56.6         33.8           ND         56.6         45.0           ND         56.6         51.1	ND 226 203  ND 226 398  ND 56.6 48.6  ND 56.6 47.0  ND 56.6 38.1  ND 56.6 54.4  ND 56.6 54.4  ND 56.6 38.1  ND 56.6 38.1  ND 56.6 50.1  ND 56.6 34.1  ND 56.6 50.1  ND 56.6 50.1  ND 56.6 50.1  ND 56.6 47.7  ND 56.6 50.6  ND 56.6 53.6  ND 56.6 53.6  ND 56.6 53.6  ND 56.6 53.6  ND 56.6 46.4  ND 226 191  ND 56.6 40.9  ND 56.6 33.8  ND 56.6 33.8  ND 56.6 45.0  ND 56.6 55.6	ND         226         203         ug/Kg           ND         226         398         ug/Kg           ND         56.6         48.6         ug/Kg           ND         56.6         47.0         ug/Kg           ND         56.6         38.1         ug/Kg           ND         56.6         49.8         ug/Kg           ND         56.6         54.4         ug/Kg           ND         56.6         38.1         ug/Kg           ND         56.6         38.1         ug/Kg           ND         56.6         34.1         ug/Kg           ND         56.6         34.1         ug/Kg           ND         56.6         47.7         ug/Kg           ND         56.6         53.6         ug/Kg           ND         56.6         58.7         ug/Kg           ND         56.6         46.4         ug/Kg           ND         56.6         46.4         ug/Kg           ND         56.6         40.9         ug/Kg           ND         56.6         33.8         ug/Kg           ND         56.6         33.8         ug/Kg           ND	ND 226 203 ug/Kg 34 ND 226 398 ug/Kg 35 ND 56.6 48.6 ug/Kg 35 ND 56.6 48.6 ug/Kg 35 ND 56.6 47.0 ug/Kg 35 ND 56.6 49.8 ug/Kg 35 ND 56.6 54.4 ug/Kg 35 ND 56.6 38.1 ug/Kg 35 ND 56.6 38.1 ug/Kg 35 ND 56.6 38.1 ug/Kg 35 ND 56.6 38.1 ug/Kg 35 ND 56.6 50.1 ug/Kg 35 ND 56.6 50.1 ug/Kg 35 ND 56.6 50.1 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 50.6 ug/Kg 35 ND 56.6 46.4 ug/Kg 35 ND 56.6 46.4 ug/Kg 35 ND 56.6 46.4 ug/Kg 35 ND 56.6 46.4 ug/Kg 35 ND 56.6 46.4 ug/Kg 35 ND 56.6 40.9 ug/Kg 35 ND 56.6 33.8 ug/Kg 35 ND 56.6 45.0 ug/Kg 35 ND 56.6 45.0 ug/Kg 35 ND 56.6 45.0 ug/Kg 35 ND 56.6 56.6 56.6 56.6 56.1 ug/Kg 35 ND 56.6 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.6 56.0 ug/Kg 35 ND 56.6 56.0 ug/Kg 35	ND 226 203 ug/Kg 90  ND 226 398 ug/Kg 176  ND 56.6 48.6 ug/Kg 86  ND 56.6 47.0 ug/Kg 83  ND 56.6 38.1 ug/Kg 67  ND 56.6 49.8 ug/Kg 88  ND 56.6 54.4 ug/Kg 96  ND 56.6 38.1 ug/Kg 67  ND 56.6 38.1 ug/Kg 67  ND 56.6 54.4 ug/Kg 667  ND 56.6 38.1 ug/Kg 667  ND 56.6 34.1 ug/Kg 667  ND 56.6 50.1 ug/Kg 88  ND 56.6 50.1 ug/Kg 96  ND 56.6 50.1 ug/Kg 96  ND 56.6 50.6 ug/Kg 98  ND 56.6 50.6 ug/Kg 95  ND 56.6 50.6 ug/Kg 95  ND 56.6 53.6 ug/Kg 95  ND 56.6 58.7 ug/Kg 95  ND 56.6 58.7 ug/Kg 95  ND 56.6 46.4 ug/Kg 95  ND 56.6 46.4 ug/Kg 72  ND 56.6 46.4 ug/Kg 72  ND 56.6 46.4 ug/Kg 72  ND 56.6 40.9 ug/Kg 72  ND 56.6 33.8 ug/Kg 72  ND 56.6 40.9 ug/Kg 72  ND 56.6 40.9 ug/Kg 72  ND 56.6 45.0 ug/Kg 72	ND 226 203 ug/Kg 90 65 - 150  ND 226 398 ug/Kg 176 45 - 177  ND 56.6 48.6 ug/Kg 86 75 - 135  ND 56.6 47.0 ug/Kg 83 78 - 135  ND 56.6 38.1 ug/Kg 67 45 - 150  ND 56.6 49.8 ug/Kg 88 69 - 138  ND 56.6 54.4 ug/Kg 96 66 - 150  ND 56.6 38.1 ug/Kg 96 66 - 150  ND 56.6 54.4 ug/Kg 96 66 - 150  ND 56.6 38.1 ug/Kg 87 96 66 - 150  ND 56.6 38.1 ug/Kg 87 67 52 - 135  ND 56.6 34.1 ug/Kg 87 67 52 - 135  ND 56.6 50.1 ug/Kg 88 77 - 135  ND 56.6 34.1 ug/Kg 87 60 51 - 145  ND 56.6 34.1 ug/Kg 87 60 51 - 145  ND 56.6 47.7 ug/Kg 84 73 - 123  ND 56.6 50.6 ug/Kg 89 74 - 135  ND 56.6 50.6 ug/Kg 89 74 - 135  ND 56.6 58.7 ug/Kg 795 73 - 135  ND 56.6 58.7 ug/Kg 795 73 - 135  ND 56.6 46.4 ug/Kg 795 73 - 135  ND 56.6 46.4 ug/Kg 795 73 - 135  ND 56.6 46.4 ug/Kg 795 73 - 135  ND 56.6 46.4 ug/Kg 795 72 41 - 138  ND 56.6 40.9 ug/Kg 72 41 - 138  ND 56.6 45.0 ug/Kg 72 41 - 138  ND 56.6 45.0 ug/Kg 772 41 - 138  ND 56.6 45.0 ug/Kg 772 41 - 138  ND 56.6 45.0 ug/Kg 772 41 - 138  ND 56.6 45.0 ug/Kg 772 41 - 138

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

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Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37285-3 MS

Matrix: Solid

Analysis Batch: 153976

Client Sample ID: NW-02-25 Prep Type: Total/NA Prep Batch: 153984

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	ND		56.6	43.5		ug/Kg	*	77	71 - 141
4-Methyl-2-pentanone (MIBK)	ND		226	214		ug/Kg	₩	95	69 - 150
Styrene	ND		56.6	42.1	F	ug/Kg	₩	74	76 - 135
1,1,2,2-Tetrachloroethane	ND		56.6	54.2		ug/Kg	₩	96	65 - 135
1,2,3-Trichlorobenzene	ND		56.6	28.6	F	ug/Kg	₩	50	62 - 135
1,2,4-Trichlorobenzene	ND		56.6	27.6	F	ug/Kg	₩	49	65 - 135
Toluene	ND		56.6	47.5		ug/Kg	₽	84	77 <sub>-</sub> 122
1,1,1-Trichloroethane	ND		56.6	45.4		ug/Kg	₽	80	70 - 135
1,1,2-Trichloroethane	ND		56.6	55.0		ug/Kg	₽	97	78 - 135
Trichloroethene	ND		56.6	49.0		ug/Kg	*	87	77 <sub>-</sub> 135
Vinyl chloride	ND		56.6	34.6		ug/Kg	₽	61	43 - 145
m-Xylene & p-Xylene	ND		113	87.2		ug/Kg	₽	77	77 <sub>-</sub> 135
o-Xylene	ND		56.6	43.7		ug/Kg	₽	77	75 - 135
Tetrachloroethene	ND		56.6	50.1		ug/Kg	₽	89	76 - 135
1,2-Dichlorobenzene	ND		56.6	39.9	F	ug/Kg	₽	70	73 - 135
1,3-Dichlorobenzene	ND		56.6	38.5	F	ug/Kg	₽	68	69 - 135
1,4-Dichlorobenzene	ND		56.6	38.1	F	ug/Kg	₽	67	73 - 135
cis-1,2-Dichloroethene	ND		56.6	46.1		ug/Kg	₽	81	76 - 135
cis-1,3-Dichloropropene	ND	^	56.6	58.6		ug/Kg	₽	104	71 <sub>-</sub> 135
1,1-Dichloroethane	ND		56.6	47.1		ug/Kg	₽	83	70 - 135
1,1-Dichloroethene	ND		56.6	58.2		ug/Kg	₽	103	79 - 135
1,2-Dichloroethane	ND		56.6	51.1		ug/Kg	₽	90	69 - 135
1,2-Dichloropropane	ND		56.6	51.0		ug/Kg	₩	90	72 - 121
Ethylbenzene	ND		56.6	45.0		ug/Kg	₩	80	73 - 125
1,2-Dibromoethane	ND		56.6	54.6		ug/Kg	₩	96	76 - 135
Trichlorofluoromethane	ND		56.6	33.7		ug/Kg	₩	60	48 - 150

ИS	MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		58 - 140
Toluene-d8 (Surr)	106		80 - 126
4-Bromofluorobenzene (Surr)	104		76 - 127
Dibromofluoromethane (Surr)	92		75 - 121

Lab Sample ID: 280-37285-3 MSD

**Matrix: Solid** 

Analysis Batch: 153976

Client Sample ID: NW-02-25	
Prep Type: Total/NA	

Prep Batch: 153984

_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	ND		228	205		ug/Kg	₩	90	65 - 150	1	28
2-Butanone (MEK)	ND		228	402		ug/Kg	₽	177	45 - 177	1	32
Benzene	ND		56.9	47.9		ug/Kg	₩	84	75 - 135	1	20
Chlorobenzene	ND		56.9	45.1		ug/Kg	₽	79	78 - 135	4	20
Carbon disulfide	ND		56.9	38.5		ug/Kg	≎	68	45 - 150	1	24
Carbon tetrachloride	ND		56.9	49.1		ug/Kg	₩	86	69 - 138	1	20
1,2-Dibromo-3-Chloropropane	ND		56.9	57.8		ug/Kg	₽	102	66 - 150	6	28
Bromomethane	ND		56.9	38.8		ug/Kg	≎	68	52 - 135	2	22
Bromoform	ND		56.9	51.1		ug/Kg	₽	90	77 - 135	2	20
Chloroethane	ND		56.9	34.0		ug/Kg	₽	60	51 <sub>-</sub> 145	0	22

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37285-3 MSD

**Matrix: Solid** 

Analysis Batch: 153976

Client Sample ID: NW-02-25 **Prep Type: Total/NA** 

**Prep Batch: 153984** 

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloroform	ND		56.9	47.3		ug/Kg	₩	83	73 - 123	1	20
Chlorobromomethane	ND		56.9	50.2		ug/Kg	₽	88	74 - 135	1	21
Dichlorobromomethane	ND		56.9	53.7		ug/Kg	₩	94	73 - 135	0	20
Chlorodibromomethane	ND		56.9	58.2		ug/Kg	₩	102	77 - 135	1	20
Isopropylbenzene	ND		56.9	43.9		ug/Kg	₩	77	74 - 137	5	20
2-Hexanone	ND		228	200		ug/Kg	₩	88	67 - 150	4	29
Chloromethane	ND		56.9	41.3		ug/Kg	₩	73	41 - 138	1	25
Dichlorodifluoromethane	ND		56.9	34.5		ug/Kg	₩	61	32 - 152	2	28
trans-1,2-Dichloroethene	ND		56.9	45.0		ug/Kg	₩	79	77 - 135	0	20
trans-1,3-Dichloropropene	ND		56.9	50.8		ug/Kg	₩	89	71 - 135	1	20
Methylene Chloride	ND		56.9	49.7		ug/Kg	₩	87	76 - 136	0	21
Methyl tert-butyl ether	ND		56.9	43.8		ug/Kg	₩.	77	71 - 141	1	20
4-Methyl-2-pentanone (MIBK)	ND		228	226		ug/Kg	₩	99	69 - 150	5	25
Styrene	ND		56.9	40.5	F	ug/Kg	₽	71	76 - 135	4	20
1,1,2,2-Tetrachloroethane	ND		56.9	55.9		ug/Kg	\$	98	65 - 135	3	21
1,2,3-Trichlorobenzene	ND		56.9	32.4	F	ug/Kg	₽	57	62 - 135	13	31
1,2,4-Trichlorobenzene	ND		56.9	30.6	F	ug/Kg	₽	54	65 - 135	11	26
Toluene	ND		56.9	46.1		ug/Kg	\$	81	77 - 122	3	20
1,1,1-Trichloroethane	ND		56.9	44.9		ug/Kg	₽	79	70 - 135	1	20
1,1,2-Trichloroethane	ND		56.9	54.8		ug/Kg	₩	96	78 - 135	0	20
Trichloroethene	ND		56.9	47.7		ug/Kg	₽	84	77 - 135	3	20
Vinyl chloride	ND		56.9	35.6		ug/Kg	₩	63	43 - 145	3	24
m-Xylene & p-Xylene	ND		114	83.0	F	ug/Kg	₩	73	77 - 135	5	20
o-Xylene	ND		56.9	41.7	F	ug/Kg	₩	73	75 - 135	5	20
Tetrachloroethene	ND		56.9	48.6		ug/Kg	₩	86	76 - 135	3	20
1,2-Dichlorobenzene	ND		56.9	39.9	F	ug/Kg	₽	70	73 - 135	0	20
1,3-Dichlorobenzene	ND		56.9	38.2	F	ug/Kg	₩	67	69 - 135	1	20
1,4-Dichlorobenzene	ND		56.9	37.5	F	ug/Kg	₽	66	73 - 135	2	22
cis-1,2-Dichloroethene	ND		56.9	45.7		ug/Kg	₽	80	76 - 135	1	20
cis-1,3-Dichloropropene	ND	^	56.9	57.9		ug/Kg	₩.	102	71 - 135	1	20
1,1-Dichloroethane	ND		56.9	46.5		ug/Kg	₽	82	70 - 135	1	20
1,1-Dichloroethene	ND		56.9	57.3		ug/Kg	₩	101	79 - 135	2	20
1,2-Dichloroethane	ND		56.9	51.1		ug/Kg		90	69 _ 135	0	20
1,2-Dichloropropane	ND		56.9	50.2		ug/Kg	₩	88	72 _ 121	2	20
Ethylbenzene	ND		56.9	43.3		ug/Kg	₩	76	73 _ 125	4	20
1,2-Dibromoethane	ND		56.9	55.0		ug/Kg		97	76 - 135	1	20
Trichlorofluoromethane	ND		56.9	34.8		ug/Kg	₽	61	48 - 150	3	33

SD	MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		58 - 140
Toluene-d8 (Surr)	104		80 - 126
4-Bromofluorobenzene (Surr)	103		76 - 127
Dibromofluoromethane (Surr)	90		75 - 121

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153993/6

**Matrix: Water** 

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			12/28/12 11:08	-
2-Butanone (MEK)	ND		6.0	2.0	ug/L			12/28/12 11:08	•
Benzene	ND		1.0	0.16	ug/L			12/28/12 11:08	
Chlorobenzene	ND		1.0	0.17	ug/L			12/28/12 11:08	
Carbon disulfide	ND		2.0	0.45	ug/L			12/28/12 11:08	•
Carbon tetrachloride	ND		1.0	0.19	ug/L			12/28/12 11:08	•
Cyclohexane	ND		2.0	0.28	ug/L			12/28/12 11:08	
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			12/28/12 11:08	•
Bromomethane	ND		2.0	0.21	ug/L			12/28/12 11:08	•
Bromoform	ND		1.0	0.19	ug/L			12/28/12 11:08	
Chloroethane	ND		2.0	0.41	ug/L			12/28/12 11:08	
Chloroform	ND		1.0	0.16	ug/L			12/28/12 11:08	
Chlorobromomethane	ND		1.0	0.10	ug/L			12/28/12 11:08	
Dichlorobromomethane	ND		1.0	0.17	ug/L			12/28/12 11:08	
Chlorodibromomethane	ND		1.0	0.17	ug/L			12/28/12 11:08	
Isopropylbenzene	ND		1.0	0.19	ug/L			12/28/12 11:08	
2-Hexanone	ND		5.0	1.7	ug/L			12/28/12 11:08	
Chloromethane	ND		2.0	0.30	ug/L			12/28/12 11:08	
Dichlorodifluoromethane	ND		2.0	0.31	<del></del>			12/28/12 11:08	,
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/28/12 11:08	
trans-1,3-Dichloropropene	ND		3.0		ug/L			12/28/12 11:08	
Methylene Chloride	0.490		2.0		ug/L			12/28/12 11:08	
Methyl acetate	ND		5.0		ug/L			12/28/12 11:08	
Methyl tert-butyl ether	ND		5.0	0.25	-			12/28/12 11:08	
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98				12/28/12 11:08	
Methylcyclohexane	ND		1.0		ug/L			12/28/12 11:08	
Styrene	ND		1.0		ug/L			12/28/12 11:08	
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/28/12 11:08	
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			12/28/12 11:08	
1,2,4-Trichlorobenzene	ND		1.0	0.21	-			12/28/12 11:08	
Toluene	ND		1.0		ug/L			12/28/12 11:08	
1,1,1-Trichloroethane	ND		1.0		ug/L			12/28/12 11:08	,
1,1,2-Trichloroethane	ND		1.0		ug/L			12/28/12 11:08	,
Trichloroethene	ND		1.0		ug/L			12/28/12 11:08	,
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	-			12/28/12 11:08	,
Vinyl chloride	ND		1.0		ug/L			12/28/12 11:08	,
m-Xylene & p-Xylene	ND		2.0		ug/L ug/L			12/28/12 11:08	,
o-Xylene	ND		1.0		ug/L			12/28/12 11:08	,
Tetrachloroethene	ND ND		1.0		ug/L ug/L			12/28/12 11:08	,
					ug/L				
1,2-Dichlorobenzene	ND ND		1.0					12/28/12 11:08	
1,3-Dichlorobenzene	ND ND		1.0 1.0		ug/L ug/L			12/28/12 11:08 12/28/12 11:08	,
1,4-Dichlorobenzene									
cis-1,2-Dichloroethene	ND ND		1.0		ug/L			12/28/12 11:08	
cis-1,3-Dichloropropene	ND ND		1.0		ug/L			12/28/12 11:08	
1,1-Dichloroethane	ND		1.0		ug/L			12/28/12 11:08	
1,1-Dichloroethene	ND		1.0		ug/L			12/28/12 11:08	,
1,2-Dichloroethane	ND ND		1.0	0.13	ug/L			12/28/12 11:08	•

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

#### Lab Sample ID: MB 280-153993/6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Matrix: Water** 

Analysis Batch: 153993

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		200	57	ug/L			12/28/12 11:08	1
Ethylbenzene	ND		1.0	0.16	ug/L			12/28/12 11:08	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			12/28/12 11:08	1
Trichlorofluoromethane	ND		2.0	0.29	ua/L			12/28/12 11:08	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 127		12/28/12 11:08	1
Toluene-d8 (Surr)	83		80 - 125		12/28/12 11:08	1
4-Bromofluorobenzene (Surr)	81		78 - 120		12/28/12 11:08	1
Dibromofluoromethane (Surr)	93		77 - 120		12/28/12 11:08	1

Lab Sample ID: LCS 280-153993/23

**Matrix: Water** 

<b>Client Sample ID</b>	: Lab Control Sample
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	20.0	20.3		ug/L		102	50 - 156	
2-Butanone (MEK)	20.0	26.6		ug/L		133	44 - 150	
Benzene	5.00	5.39		ug/L		108	74 <sub>-</sub> 135	
Chlorobenzene	5.00	5.09		ug/L		102	76 - 135	
Carbon disulfide	5.00	4.77		ug/L		95	34 _ 150	
Carbon tetrachloride	5.00	5.24		ug/L		105	67 <sub>-</sub> 135	
1,2-Dibromo-3-Chloropropane	5.00	4.55	J	ug/L		91	65 _ 150	
Bromomethane	5.00	4.21		ug/L		84	38 _ 150	
Bromoform	5.00	4.57		ug/L		91	62 - 135	
Chloroethane	5.00	4.31		ug/L		86	46 - 147	
Chloroform	5.00	5.12		ug/L		102	76 <sub>-</sub> 120	
Chlorobromomethane	5.00	5.03		ug/L		101	70 - 135	
Dichlorobromomethane	5.00	5.25		ug/L		105	73 <sub>-</sub> 135	
Chlorodibromomethane	5.00	4.41		ug/L		88	68 - 135	
Isopropylbenzene	5.00	5.09		ug/L		102	75 <sub>-</sub> 135	
2-Hexanone	20.0	18.0		ug/L		90	47 <sub>-</sub> 150	
Chloromethane	5.00	4.34		ug/L		87	34 _ 145	
Dichlorodifluoromethane	5.00	3.94		ug/L		79	28 _ 152	
trans-1,2-Dichloroethene	5.00	5.54		ug/L		111	75 - 135	
trans-1,3-Dichloropropene	5.00	5.01		ug/L		100	68 <sub>-</sub> 135	
Methylene Chloride	5.00	5.29		ug/L		106	54 <sub>-</sub> 141	
Methyl tert-butyl ether	5.00	5.07		ug/L		101	46 - 135	
4-Methyl-2-pentanone (MIBK)	20.0	19.2		ug/L		96	53 _ 150	
Styrene	5.00	4.85		ug/L		97	68 - 135	
1,1,2,2-Tetrachloroethane	5.00	5.55		ug/L		111	66 <sub>-</sub> 135	
1,2,3-Trichlorobenzene	5.00	4.70		ug/L		94	60 _ 135	
1,2,4-Trichlorobenzene	5.00	4.53		ug/L		91	64 <sub>-</sub> 135	
Toluene	5.00	5.73		ug/L		115	73 <sub>-</sub> 120	
1,1,1-Trichloroethane	5.00	5.23		ug/L		105	70 - 135	
1,1,2-Trichloroethane	5.00	5.08		ug/L		102	73 <sub>-</sub> 135	
Trichloroethene	5.00	5.13		ug/L		103	73 <sub>-</sub> 135	
Vinyl chloride	5.00	4.08		ug/L		82	40 - 144	

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-153993/23

**Matrix: Water** 

Analysis Batch: 153993

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	10.0	10.3		ug/L		103	74 - 135	
o-Xylene	5.00	4.85		ug/L		97	73 - 135	
Tetrachloroethene	5.00	4.99		ug/L		100	70 - 135	
1,2-Dichlorobenzene	5.00	5.17		ug/L		103	75 - 135	
1,3-Dichlorobenzene	5.00	5.13		ug/L		103	74 - 135	
1,4-Dichlorobenzene	5.00	5.10		ug/L		102	75 - 135	
cis-1,2-Dichloroethene	5.00	5.31		ug/L		106	73 - 135	
cis-1,3-Dichloropropene	5.00	4.35		ug/L		87	66 - 135	
1,1-Dichloroethane	5.00	5.15		ug/L		103	75 - 135	
1,1-Dichloroethene	5.00	6.12		ug/L		122	71 - 136	
1,2-Dichloroethane	5.00	5.11		ug/L		102	70 - 135	
1,2-Dichloropropane	5.00	5.13		ug/L		103	71 - 120	
Ethylbenzene	5.00	5.14		ug/L		103	72 - 120	
1,2-Dibromoethane	5.00	5.05		ug/L		101	71 <sub>-</sub> 135	
Trichlorofluoromethane	5.00	4.08		ug/L		82	47 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 127
Toluene-d8 (Surr)	85		80 - 125
4-Bromofluorobenzene (Surr)	84		78 - 120
Dibromofluoromethane (Surr)	92		77 - 120

Lab Sample ID: 280-37297-N-1 MS

**Matrix: Water** 

Analysis Batch: 153993

Client Sample ID: Matrix Spike
Pren Type: Total/NA

Analysis Batch: 153993									a. =
	•	Sample	Spike		MS		_		%Rec.
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits
Acetone	ND		20.0	21.3		ug/L		107	50 - 156
2-Butanone (MEK)	ND		20.0	29.0		ug/L		145	44 - 150
Benzene	ND		5.00	5.64		ug/L		113	74 - 135
Chlorobenzene	ND		5.00	5.35		ug/L		107	76 <sub>-</sub> 135
Carbon disulfide	ND		5.00	4.76		ug/L		95	34 - 150
Carbon tetrachloride	ND		5.00	5.52		ug/L		110	67 - 135
1,2-Dibromo-3-Chloropropane	ND		5.00	4.56	J	ug/L		91	65 _ 150
Bromomethane	ND		5.00	4.22		ug/L		84	38 - 150
Bromoform	ND		5.00	4.90		ug/L		98	62 _ 135
Chloroethane	ND		5.00	4.53		ug/L		91	46 - 147
Chloroform	ND		5.00	5.46		ug/L		109	76 - 120
Chlorobromomethane	ND		5.00	5.30		ug/L		106	70 - 135
Dichlorobromomethane	ND		5.00	5.62		ug/L		112	73 - 135
Chlorodibromomethane	ND		5.00	4.78		ug/L		96	68 - 135
Isopropylbenzene	ND		5.00	5.18		ug/L		104	75 <sub>-</sub> 135
2-Hexanone	ND		20.0	19.1		ug/L		95	47 - 150
Chloromethane	ND		5.00	4.25		ug/L		85	34 - 145
Dichlorodifluoromethane	ND		5.00	4.16		ug/L		83	28 - 152
trans-1,2-Dichloroethene	ND		5.00	5.79		ug/L		116	75 <sub>-</sub> 135
rans-1,3-Dichloropropene	ND		5.00	5.33		ug/L		107	68 <sub>-</sub> 135
Methylene Chloride	ND		5.00	5.35		ug/L		107	54 - 141

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

> Client Sample ID: Matrix Spike Prep Type: Total/NA

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued) Lab Sample ID: 280-37297-N-1 MS

Matrix: Water

Analysis Batch: 153993

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	ND		5.00	5.61		ug/L		112	46 - 135	
4-Methyl-2-pentanone (MIBK)	ND		20.0	20.3		ug/L		102	53 _ 150	
Styrene	ND		5.00	4.94		ug/L		99	68 - 135	
1,1,2,2-Tetrachloroethane	ND		5.00	6.09		ug/L		122	66 - 135	
1,2,3-Trichlorobenzene	ND		5.00	5.30		ug/L		106	60 - 135	
1,2,4-Trichlorobenzene	ND		5.00	4.76		ug/L		95	64 - 135	
Toluene	ND		5.00	5.96		ug/L		119	73 - 120	
1,1,1-Trichloroethane	ND		5.00	5.44		ug/L		109	70 - 135	
1,1,2-Trichloroethane	ND		5.00	5.48		ug/L		110	73 - 135	
Trichloroethene	ND		5.00	5.15		ug/L		103	73 <sub>-</sub> 135	
Vinyl chloride	ND		5.00	4.15		ug/L		83	40 - 144	
m-Xylene & p-Xylene	ND		10.0	10.7		ug/L		107	74 - 135	
o-Xylene	ND		5.00	5.04		ug/L		101	73 _ 135	
Tetrachloroethene	ND		5.00	5.35		ug/L		107	70 _ 135	
1,2-Dichlorobenzene	ND		5.00	5.35		ug/L		107	75 _ 135	
1,3-Dichlorobenzene	ND		5.00	5.41		ug/L		108	74 - 135	
1,4-Dichlorobenzene	ND		5.00	5.39		ug/L		108	75 _ 135	
cis-1,2-Dichloroethene	ND		5.00	5.62		ug/L		112	73 _ 135	
cis-1,3-Dichloropropene	ND		5.00	4.37		ug/L		87	66 - 135	
1,1-Dichloroethane	ND		5.00	5.42		ug/L		108	75 _ 135	
1,1-Dichloroethene	ND		5.00	6.51		ug/L		130	71 - 136	
1,2-Dichloroethane	ND		5.00	5.68		ug/L		114	70 _ 135	
1,2-Dichloropropane	ND		5.00	5.48		ug/L		110	71 - 120	
Ethylbenzene	ND		5.00	5.25		ug/L		105	72 - 120	
1,2-Dibromoethane	ND		5.00	5.61		ug/L		112	71 <sub>-</sub> 135	
Trichlorofluoromethane	ND		5.00	4.22		ug/L		84	47 - 150	

1S	MS

Toluene-d8 (Surr)	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 127
Toluene-d8 (Surr)	93		80 - 125
4-Bromofluorobenzene (Surr)	91		78 <sub>-</sub> 120
Dibromofluoromethane (Surr)	104		77 - 120

Lab Sample ID: 280-37297-N-1 MSD

**Matrix: Water** 

Analysis Batch: 153993

Client Sample ID: N	atrix Spike Duplicate
	Prep Type: Total/NA

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	ND		20.0	22.1		ug/L		111	50 - 156	4	41
2-Butanone (MEK)	ND		20.0	30.7	F	ug/L		154	44 - 150	6	32
Benzene	ND		5.00	5.61		ug/L		112	74 - 135	1	20
Chlorobenzene	ND		5.00	5.34		ug/L		107	76 - 135	0	20
Carbon disulfide	ND		5.00	4.83		ug/L		97	34 - 150	2	20
Carbon tetrachloride	ND		5.00	5.35		ug/L		107	67 - 135	3	21
1,2-Dibromo-3-Chloropropane	ND		5.00	5.05		ug/L		101	65 - 150	10	22
Bromomethane	ND		5.00	4.22		ug/L		84	38 - 150	0	24
Bromoform	ND		5.00	4.99		ug/L		100	62 - 135	2	21
Chloroethane	ND		5.00	4.37		ug/L		87	46 - 147	4	25

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37297-N-1 MSD

**Matrix: Water** 

Analysis Batch: 153993

**Client Sample ID: Matrix Spike Duplicate** 

**Prep Type: Total/NA** 

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloroform	ND		5.00	5.46	-	ug/L		109	76 - 120	0	20	
Chlorobromomethane	ND		5.00	5.44		ug/L		109	70 - 135	3	20	
Dichlorobromomethane	ND		5.00	5.58		ug/L		112	73 - 135	1	20	
Chlorodibromomethane	ND		5.00	4.90		ug/L		98	68 - 135	2	20	
Isopropylbenzene	ND		5.00	5.28		ug/L		106	75 - 135	2	20	
2-Hexanone	ND		20.0	20.7		ug/L		104	47 - 150	8	25	
Chloromethane	ND		5.00	4.13		ug/L		83	34 - 145	3	24	
Dichlorodifluoromethane	ND		5.00	4.31		ug/L		86	28 - 152	3	24	
trans-1,2-Dichloroethene	ND		5.00	5.85		ug/L		117	75 - 135	1	24	
trans-1,3-Dichloropropene	ND		5.00	5.50		ug/L		110	68 - 135	3	20	
Methylene Chloride	ND		5.00	5.47		ug/L		109	54 - 141	2	20	
Methyl tert-butyl ether	ND		5.00	5.89		ug/L		118	46 - 135	5	21	
4-Methyl-2-pentanone (MIBK)	ND		20.0	21.3		ug/L		107	53 - 150	5	22	
Styrene	ND		5.00	5.04		ug/L		101	68 - 135	2	20	
1,1,2,2-Tetrachloroethane	ND		5.00	6.29		ug/L		126	66 - 135	3	20	
1,2,3-Trichlorobenzene	ND		5.00	5.50		ug/L		110	60 - 135	4	29	
1,2,4-Trichlorobenzene	ND		5.00	5.16		ug/L		103	64 - 135	8	25	
Toluene	ND		5.00	6.03	F	ug/L		121	73 - 120	1	20	
1,1,1-Trichloroethane	ND		5.00	5.46		ug/L		109	70 - 135	0	20	
1,1,2-Trichloroethane	ND		5.00	5.82		ug/L		116	73 - 135	6	21	
Trichloroethene	ND		5.00	5.18		ug/L		104	73 - 135	1	20	
Vinyl chloride	ND		5.00	4.09		ug/L		82	40 - 144	2	24	
m-Xylene & p-Xylene	ND		10.0	10.7		ug/L		107	74 - 135	0	20	
o-Xylene	ND		5.00	5.13		ug/L		103	73 - 135	2	20	
Tetrachloroethene	ND		5.00	5.30		ug/L		106	70 - 135	1	20	
1,2-Dichlorobenzene	ND		5.00	5.50		ug/L		110	75 - 135	3	20	
1,3-Dichlorobenzene	ND		5.00	5.38		ug/L		108	74 - 135	1	20	
1,4-Dichlorobenzene	ND		5.00	5.36		ug/L		107	75 - 135	1	23	
cis-1,2-Dichloroethene	ND		5.00	5.67		ug/L		113	73 - 135	1	20	
cis-1,3-Dichloropropene	ND		5.00	4.56		ug/L		91	66 - 135	4	20	
1,1-Dichloroethane	ND		5.00	5.41		ug/L		108	75 - 135	0	21	
1,1-Dichloroethene	ND		5.00	6.48		ug/L		130	71 - 136	1	20	
1,2-Dichloroethane	ND		5.00	5.76		ug/L		115	70 - 135	1	20	
1,2-Dichloropropane	ND		5.00	5.48		ug/L		110	71 - 120	0	20	
Ethylbenzene	ND		5.00	5.33		ug/L		107	72 - 120	2	26	
1,2-Dibromoethane	ND		5.00	5.51		ug/L		110	71 - 135	2	20	
Trichlorofluoromethane	ND		5.00	4.19		ug/L		84	47 - 150	1	20	

SD	MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
Toluene-d8 (Surr)	92		80 - 125
4-Bromofluorobenzene (Surr)	92		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120

TestAmerica Denver

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-153406/1-A

Matrix: Water

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 153406

Analysis Batch: 153874								Prep Batch:	153406
Australia		MB	DI.	MDI	1114	_	D	A l d	D!! F
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		10	1.8	ug/L		12/22/12 15:00	12/27/12 10:39	1
1,2,4,5-Tetrachlorobenzene	ND		10	1.7	ug/L		12/22/12 15:00	12/27/12 10:39	1
1,2,4-Trichlorobenzene	ND		4.0		ug/L		12/22/12 15:00	12/27/12 10:39	
1,2-Dichlorobenzene	ND		4.0		ug/L		12/22/12 15:00	12/27/12 10:39	1
1,3-Dichlorobenzene	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
1,4-Dichlorobenzene	ND		4.0	0.32	ug/L		12/22/12 15:00	12/27/12 10:39	1
1,4-Dioxane	ND		20	1.7	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,4,6-Trichlorophenol	ND		10	0.29	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,4-Dichlorophenol	ND		10	0.64	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,2'-oxybis[1-chloropropane]	ND		10	0.28	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,3,4,6-Tetrachlorophenol	ND		50	2.0	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,4,5-Trichlorophenol	ND		10	0.45	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,4-Dimethylphenol	ND		10	0.58	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,4-Dinitrophenol	ND		30	10	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,4-Dinitrotoluene	ND		10	1.7	ug/L		12/22/12 15:00	12/27/12 10:39	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		12/22/12 15:00	12/27/12 10:39	1
2-Chloronaphthalene	ND		4.0	0.26	ug/L		12/22/12 15:00	12/27/12 10:39	1
2-Chlorophenol	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
2-Methylnaphthalene	ND		4.0		ug/L		12/22/12 15:00	12/27/12 10:39	1
2-Methylphenol	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
3 & 4 Methylphenol	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
2-Nitroaniline	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	· · · · · · · · · · · · · · · · · · ·
2-Nitrophenol	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
3,3'-Dichlorobenzidine	ND		50		ug/L		12/22/12 15:00	12/27/12 10:39	1
3-Nitroaniline	ND		10				12/22/12 15:00	12/27/12 10:39	· · · · · · · · · · · · · · · · · · ·
	ND				ug/L				1
4,6-Dinitro-2-methylphenol			50 10	4.0	ug/L		12/22/12 15:00	12/27/12 10:39	
4-Bromophenyl phenyl ether	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
4-Chloro-3-methylphenol	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
4-Chloroaniline	ND		10	2.1	ug/L		12/22/12 15:00	12/27/12 10:39	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
4-Nitroaniline	ND		10	2.0	ug/L		12/22/12 15:00	12/27/12 10:39	1
4-Nitrophenol	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
Acenaphthene	ND		4.0	0.28	ug/L		12/22/12 15:00	12/27/12 10:39	1
Acenaphthylene	ND		4.0	0.49	ug/L		12/22/12 15:00	12/27/12 10:39	1
Acetophenone	ND		10	0.24	ug/L		12/22/12 15:00	12/27/12 10:39	1
Anthracene	ND		4.0	0.42	ug/L		12/22/12 15:00	12/27/12 10:39	1
Atrazine	ND		10	0.73	ug/L		12/22/12 15:00	12/27/12 10:39	1
Benzaldehyde	ND		10	2.0	ug/L		12/22/12 15:00	12/27/12 10:39	1
Benzo[a]pyrene	ND		4.0	0.31	ug/L		12/22/12 15:00	12/27/12 10:39	1
Benzo[b]fluoranthene	ND		4.0	0.53	ug/L		12/22/12 15:00	12/27/12 10:39	1
Benzo[g,h,i]perylene	ND		4.0		ug/L		12/22/12 15:00	12/27/12 10:39	1
Benzo[k]fluoranthene	ND		4.0	0.46	ug/L		12/22/12 15:00	12/27/12 10:39	1
Benzo[a]anthracene	ND		4.0		ug/L		12/22/12 15:00	12/27/12 10:39	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
Bis(2-chloroethyl)ether	ND		10		ug/L		12/22/12 15:00	12/27/12 10:39	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L ug/L		12/22/12 15:00	12/27/12 10:39	· · · · · · · · · · · · · · · · · · ·
Butyl benzyl phthalate	ND		4.0		ug/L ug/L		12/22/12 15:00	12/27/12 10:39	1
Caprolactam	ND ND		4.0		ug/L ug/L		12/22/12 15:00	12/27/12 10:39	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153406/1-A

**Matrix: Water** 

Analysis Batch: 153874

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 153406** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	ND		4.0	0.43	ug/L		12/22/12 15:00	12/27/12 10:39	1
Chrysene	ND		4.0	0.54	ug/L		12/22/12 15:00	12/27/12 10:39	1
Dibenz(a,h)anthracene	ND		4.0	0.51	ug/L		12/22/12 15:00	12/27/12 10:39	1
Di-n-butyl phthalate	ND		4.0	1.2	ug/L		12/22/12 15:00	12/27/12 10:39	1
Di-n-octyl phthalate	ND		4.0	0.35	ug/L		12/22/12 15:00	12/27/12 10:39	1
Dibenzofuran	ND		4.0	0.29	ug/L		12/22/12 15:00	12/27/12 10:39	1
Diethyl phthalate	ND		4.0	0.38	ug/L		12/22/12 15:00	12/27/12 10:39	1
Dimethyl phthalate	ND		4.0	0.21	ug/L		12/22/12 15:00	12/27/12 10:39	1
Fluoranthene	ND		4.0	0.20	ug/L		12/22/12 15:00	12/27/12 10:39	1
Fluorene	ND		4.0	0.31	ug/L		12/22/12 15:00	12/27/12 10:39	1
Hexachlorobenzene	ND		10	0.66	ug/L		12/22/12 15:00	12/27/12 10:39	1
Hexachlorobutadiene	ND		10	3.3	ug/L		12/22/12 15:00	12/27/12 10:39	1
Hexachlorocyclopentadiene	ND		50	10	ug/L		12/22/12 15:00	12/27/12 10:39	1
Hexachloroethane	ND		10	2.1	ug/L		12/22/12 15:00	12/27/12 10:39	1
Indeno[1,2,3-cd]pyrene	ND		4.0	0.65	ug/L		12/22/12 15:00	12/27/12 10:39	1
Isophorone	ND		10	0.21	ug/L		12/22/12 15:00	12/27/12 10:39	1
N-Nitrosodi-n-propylamine	ND		10	0.35	ug/L		12/22/12 15:00	12/27/12 10:39	1
n-Nitrosodiphenylamine(as	ND		10	0.44	ug/L		12/22/12 15:00	12/27/12 10:39	1
diphenylamine)									
Naphthalene	ND		4.0	0.29	ug/L		12/22/12 15:00	12/27/12 10:39	1
Nitrobenzene	ND		10	0.81	ug/L		12/22/12 15:00	12/27/12 10:39	1
Pentachlorophenol	ND		50	20	ug/L		12/22/12 15:00	12/27/12 10:39	1
Phenanthrene	ND		4.0	0.26	ug/L		12/22/12 15:00	12/27/12 10:39	1
Phenol	ND		10	2.0	ug/L		12/22/12 15:00	12/27/12 10:39	1
Pyrene	ND		10	0.37	ug/L		12/22/12 15:00	12/27/12 10:39	1

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Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	89	51 - 120	12/22/12 15:00	12/27/12 10:39	1
Phenol-d5	92	51 - 120	12/22/12 15:00	12/27/12 10:39	1
2,4,6-Tribromophenol	78	57 - 120	12/22/12 15:00	12/27/12 10:39	1
2-Fluorobiphenyl	85	38 - 120	12/22/12 15:00	12/27/12 10:39	1
Nitrobenzene-d5	92	48 - 120	12/22/12 15:00	12/27/12 10:39	1
Terphenyl-d14	95	50 - 120	12/22/12 15:00	12/27/12 10:39	1

Lab Sample ID: LCS 280-153406/2-A

**Matrix: Water** 

Analysis Batch: 153874

Client Sample ID: Lab Control Sample Prep Type: Total/NA **Prep Batch: 153406** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2,4-Trichlorobenzene	80.0	65.9		ug/L		82	28 - 120	
1,2-Dichlorobenzene	80.0	67.4		ug/L		84	28 - 120	
1,3-Dichlorobenzene	80.0	66.5		ug/L		83	24 - 120	
1,4-Dichlorobenzene	80.0	67.0		ug/L		84	25 _ 120	
2,4,6-Trichlorophenol	80.0	77.4		ug/L		97	62 _ 120	
2,4-Dichlorophenol	80.0	73.0		ug/L		91	62 - 120	
2,2'-oxybis[1-chloropropane]	80.0	70.2		ug/L		88	49 - 120	
2,4,5-Trichlorophenol	80.0	76.5		ug/L		96	64 - 120	
2,4-Dimethylphenol	80.0	64.4		ug/L		80	44 - 120	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

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Lab Sample ID: LCS 280-153406/	2_A				
Lab Salliple ID. LCS 200-133400/	4-M				
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Matrix: Water

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153406

Analysis Batch: 153874	Spike	LCS	LCS				Prep Batch: 15340 %Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
2,4-Dinitrophenol	80.0	63.0		ug/L	<u>-</u>	79	55 - 120
2,4-Dinitrotoluene	80.0	83.3		ug/L		104	76 - 120
2,6-Dinitrotoluene	80.0	79.8		ug/L		100	73 - 120
2-Chloronaphthalene	80.0	71.3		ug/L		89	51 - 120
2-Chlorophenol	80.0	74.3		ug/L		93	58 <sub>-</sub> 120
2-Methylnaphthalene	80.0	68.0		ug/L		85	42 - 120
2-Methylphenol	80.0	73.2		ug/L		91	62 - 120
3 & 4 Methylphenol	160	149		ug/L		93	58 <sub>-</sub> 120
2-Nitroaniline	80.0	83.2		ug/L		104	70 - 120
2-Nitrophenol	80.0	78.8		ug/L		98	59 <sub>-</sub> 120
3,3'-Dichlorobenzidine	80.0	43.3	1	ug/L		54	10 - 120
3-Nitroaniline	80.0	74.2	· ·	ug/L		93	70 <sub>-</sub> 120
4,6-Dinitro-2-methylphenol	80.0	73.8		ug/L		92	63 - 125
4-Bromophenyl phenyl ether	80.0	74.1		ug/L		93	69 - 120
4-Chloro-3-methylphenol	80.0	76.4		ug/L		95	69 - 120
4-Chloroaniline	80.0	63.1		ug/L		79	60 - 120
4-Chlorophenyl phenyl ether	80.0	74.4		ug/L		93	67 <sub>-</sub> 120
4-Nitroaniline	80.0	77.0		ug/L		96	70 - 120
4-Nitrophenol	80.0	77.5				97	59 <sub>-</sub> 129
Acenaphthene	80.0	71.9		ug/L ug/L		90	61 - 120
Acenaphthylene	80.0	75.1		ug/L		94	63 - 120
Anthracene	80.0	74.4				93	71 - 120
Benzo[a]pyrene	80.0	66.2		ug/L ug/L		83	63 - 120
Benzo[b]fluoranthene	80.0	83.6		ug/L		104	65 <sub>-</sub> 120
Benzo[g,h,i]perylene	80.0	75.8				95	69 - 120
Benzo[k]fluoranthene	80.0	70.1		ug/L		88	66 - 120
	80.0	70.1		ug/L		93	71 - 120
Benzo[a]anthracene	80.0	71.8		ug/L		90	64 - 120
Bis(2-chloroethoxy)methane	80.0	91.8		ug/L		115	60 - 120
Bis(2-chloroethyl)ether  Bis(2-chloroethyl)ether	80.0	83.0		ug/L		104	62 - 133
Bis(2-ethylhexyl) phthalate				ug/L			
Butyl benzyl phthalate Carbazole	80.0 80.0	84.7		ug/L		106	71 - 120
Carbazole Chrysene	80.0	75.7 76.8		ug/L		95 96	72 <sub>-</sub> 120 69 <sub>-</sub> 120
	80.0			ug/L			
Dibenz(a,h)anthracene	80.0	75.9 81.7		ug/L		95	63 <sub>-</sub> 120
Di-n-butyl phthalate				ug/L		102	75 <sub>-</sub> 120
Di-n-octyl phthalate	80.0	83.3		ug/L		104	71 - 120
Diethyl phthalate	80.0	78.7		ug/L		98	73 <sub>-</sub> 120
Dimethyl phthalate	80.0	77.5		ug/L		97	73 - 120
Fluoranthene	80.0	75.1		ug/L		94	73 - 120
Fluorene	80.0	74.1		ug/L		93	68 - 120
Hexachlorobenzene	80.0	71.1		ug/L		89	69 - 120
Hexachlorobutadiene	80.0	63.8		ug/L		80	24 - 120
Hexachlorocyclopentadiene	80.0	21.9	J	ug/L		27	10 - 120
Hexachloroethane	80.0	67.3		ug/L		84	21 - 120
Indeno[1,2,3-cd]pyrene	80.0	69.1		ug/L		86	63 - 120
Isophorone	80.0	77.6		ug/L		97	65 - 120
N-Nitrosodi-n-propylamine	80.0	79.0		ug/L		99	58 <sub>-</sub> 120

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample	ID: LCS	280-153406/2-A

Lab Sample ID: LCSD 280-153406/3-A

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 153874

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

**Prep Batch: 153406** 

,, = a								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
n-Nitrosodiphenylamine(as	68.3	63.3		ug/L		93	66 - 120	
diphenylamine)								
Naphthalene	80.0	68.8		ug/L		86	39 - 120	
Nitrobenzene	80.0	75.2		ug/L		94	59 - 120	
Pentachlorophenol	80.0	64.4		ug/L		81	57 <sub>-</sub> 120	
Phenanthrene	80.0	75.2		ug/L		94	71 - 120	
Phenol	80.0	74.5		ug/L		93	61 - 120	
Pyrene	80.0	76.9		ug/L		96	71 - 120	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol	89		51 - 120
Phenol-d5	93		51 - 120
2,4,6-Tribromophenol	91		57 - 120
2-Fluorobiphenyl	85		38 - 120
Nitrobenzene-d5	93		48 - 120
Terphenyl-d14	97		50 - 120

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 153874							Prep l	Batch: 1	53406
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2,4-Trichlorobenzene	80.0	63.7		ug/L		80	28 - 120	3	42
1,2-Dichlorobenzene	80.0	65.0		ug/L		81	28 - 120	4	49
1,3-Dichlorobenzene	80.0	63.6		ug/L		80	24 - 120	4	52
1,4-Dichlorobenzene	80.0	62.8		ug/L		78	25 - 120	7	52
2,4,6-Trichlorophenol	80.0	77.7		ug/L		97	62 - 120	0	30
2,4-Dichlorophenol	80.0	75.8		ug/L		95	62 - 120	4	30
2,2'-oxybis[1-chloropropane]	80.0	70.0		ug/L		87	49 - 120	0	30
2,4,5-Trichlorophenol	80.0	76.9		ug/L		96	64 - 120	0	30
2,4-Dimethylphenol	80.0	64.7		ug/L		81	44 - 120	0	30
2,4-Dinitrophenol	80.0	67.0		ug/L		84	55 - 120	6	49
2,4-Dinitrotoluene	80.0	85.9		ug/L		107	76 - 120	3	32
2,6-Dinitrotoluene	80.0	80.0		ug/L		100	73 - 120	0	30
2-Chloronaphthalene	80.0	71.6		ug/L		89	51 - 120	0	30
2-Chlorophenol	80.0	74.7		ug/L		93	58 - 120	1	30
2-Methylnaphthalene	80.0	67.5		ug/L		84	42 - 120	1	32
2-Methylphenol	80.0	73.8		ug/L		92	62 - 120	1	30
3 & 4 Methylphenol	160	149		ug/L		93	58 - 120	0	30
2-Nitroaniline	80.0	86.5		ug/L		108	70 - 120	4	30
2-Nitrophenol	80.0	80.6		ug/L		101	59 <sub>-</sub> 120	2	30
3,3'-Dichlorobenzidine	80.0	50.5		ug/L		63	10 - 120	15	30
3-Nitroaniline	80.0	75.0		ug/L		94	70 - 120	1	35
4,6-Dinitro-2-methylphenol	80.0	80.7		ug/L		101	63 - 125	9	37
4-Bromophenyl phenyl ether	80.0	75.3		ug/L		94	69 - 120	2	31
4-Chloro-3-methylphenol	80.0	78.8		ug/L		98	69 - 120	3	30
4-Chloroaniline	80.0	67.2		ug/L		84	60 - 120	6	54
4-Chlorophenyl phenyl ether	80.0	75.1		ug/L		94	67 - 120	1	30

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-153406/3-A

**Matrix: Water** 

Analysis Batch: 153874

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 153406

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4-Nitroaniline	80.0	80.6		ug/L		101	70 - 120	4	34
4-Nitrophenol	80.0	84.8		ug/L		106	59 <sub>-</sub> 129	9	35
Acenaphthene	80.0	72.8		ug/L		91	61 - 120	1	30
Acenaphthylene	80.0	75.9		ug/L		95	63 - 120	1	30
Anthracene	80.0	76.7		ug/L		96	71 - 120	3	30
Benzo[a]pyrene	80.0	69.7		ug/L		87	63 - 120	5	30
Benzo[b]fluoranthene	80.0	79.0		ug/L		99	65 - 120	6	38
Benzo[g,h,i]perylene	80.0	78.2		ug/L		98	69 - 120	3	30
Benzo[k]fluoranthene	80.0	78.0		ug/L		97	66 - 120	11	37
Benzo[a]anthracene	80.0	78.1		ug/L		98	71 - 120	5	30
Bis(2-chloroethoxy)methane	80.0	74.0		ug/L		93	64 - 120	3	30
Bis(2-chloroethyl)ether	80.0	94.8		ug/L		118	60 - 120	3	34
Bis(2-ethylhexyl) phthalate	80.0	87.0		ug/L		109	62 _ 133	5	30
Butyl benzyl phthalate	80.0	88.2		ug/L		110	71 - 120	4	30
Carbazole	80.0	77.7		ug/L		97	72 - 120	3	30
Chrysene	80.0	78.1		ug/L		98	69 - 120	2	30
Dibenz(a,h)anthracene	80.0	77.8		ug/L		97	63 _ 120	3	30
Di-n-butyl phthalate	80.0	84.3		ug/L		105	75 <sub>-</sub> 120	3	30
Di-n-octyl phthalate	80.0	86.2		ug/L		108	71 - 120	3	30
Diethyl phthalate	80.0	80.0		ug/L		100	73 _ 120	2	30
Dimethyl phthalate	80.0	78.7		ug/L		98	73 - 120	2	30
Fluoranthene	80.0	77.0		ug/L		96	73 - 120	3	34
Fluorene	80.0	74.9		ug/L		94	68 - 120	1	30
Hexachlorobenzene	80.0	73.4		ug/L		92	69 - 120	3	30
Hexachlorobutadiene	80.0	61.1		ug/L		76	24 - 120	4	47
Hexachlorocyclopentadiene	80.0	24.3	J	ug/L		30	10 - 120	10	72
Hexachloroethane	80.0	63.3		ug/L		79	21 - 120	6	57
Indeno[1,2,3-cd]pyrene	80.0	71.9		ug/L		90	63 - 120	4	30
Isophorone	80.0	79.5		ug/L		99	65 - 120	2	30
N-Nitrosodi-n-propylamine	80.0	79.7		ug/L		100	58 - 120	1	30
n-Nitrosodiphenylamine(as	68.3	64.9		ug/L		95	66 - 120	2	37
diphenylamine)									
Naphthalene	80.0	68.4		ug/L		86	39 - 120	1	34
Nitrobenzene	80.0	77.0		ug/L		96	59 - 120	2	30
Pentachlorophenol	80.0	67.2		ug/L		84	57 - 120	4	33
Phenanthrene	80.0	75.7		ug/L		95	71 - 120	1	30
Phenol	80.0	74.9		ug/L		94	61 - 120	0	42
Pyrene	80.0	80.2		ug/L		100	71 - 120	4	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol	91	-	51 - 120
Phenol-d5	93		51 - 120
2,4,6-Tribromophenol	92		57 - 120
2-Fluorobiphenyl	88		38 - 120
Nitrobenzene-d5	96		48 - 120
Terphenyl-d14	100		50 - 120

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-153611/1-A

**Matrix: Solid** 

Analysis Batch: 154261

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 153611** 

,,									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.53	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
4,4'-DDE	ND		1.6	0.23	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
4,4'-DDT	ND		1.6	0.57	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Aldrin	ND		1.6	0.24	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
alpha-BHC	ND		1.6	0.21	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
beta-BHC	ND		1.6	0.64	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Chlordane (n.o.s.)	ND		1.6	0.21	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
delta-BHC	ND		1.6	0.39	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Dieldrin	ND		1.6	0.20	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Endosulfan I	ND		1.6	0.17	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Endosulfan II	ND		1.6	0.28	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Endosulfan sulfate	ND		1.6	0.27	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Endrin	ND		1.6	0.29	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Endrin aldehyde	ND		1.6	0.16	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
gamma-BHC (Lindane)	ND		1.6	0.45	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Heptachlor	ND		1.6	0.21	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Heptachlor epoxide	ND		1.6	0.41	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Methoxychlor	ND		3.2	0.43	ug/Kg		12/24/12 11:15	12/31/12 16:32	1
Toxaphene	ND		64	15	ug/Kg		12/24/12 11:15	12/31/12 16:32	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		63 - 124	12/24/12 11:15	12/31/12 16:32	1
Tetrachloro-m-xylene	86		59 - 115	12/24/12 11:15	12/31/12 16:32	1

Lab Sample ID: LCS 280-153611/2-A

**Matrix: Solid** 

Analysis Batch: 154261

Client Sample II	): Lab Control Sample
	Prep Type: Total/NA

Pren Batch: 153611

Analysis Batch: 154261							Prep Batc	11: 153611
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	16.4	16.1		ug/Kg		98	54 - 130	
4,4'-DDE	16.4	15.7		ug/Kg		96	58 <sub>-</sub> 121	
4,4'-DDT	16.4	16.5		ug/Kg		101	57 <sub>-</sub> 133	
Aldrin	16.4	14.2		ug/Kg		86	63 _ 115	
alpha-BHC	16.4	14.1		ug/Kg		86	64 - 116	
beta-BHC	16.4	14.5		ug/Kg		89	67 _ 115	
delta-BHC	16.4	15.2		ug/Kg		93	67 <sub>-</sub> 115	
Dieldrin	16.4	16.2		ug/Kg		99	65 _ 127	
Endosulfan I	16.4	15.5		ug/Kg		94	65 _ 118	
Endosulfan II	16.4	16.0		ug/Kg		98	71 - 118	
Endosulfan sulfate	16.4	15.8		ug/Kg		96	67 _ 123	
Endrin	16.4	18.2		ug/Kg		111	77 <sub>-</sub> 134	
Endrin aldehyde	16.4	9.56		ug/Kg		58	47 _ 115	
gamma-BHC (Lindane)	16.4	14.5		ug/Kg		88	63 _ 118	
Heptachlor	16.4	14.1		ug/Kg		86	68 - 115	
Methoxychlor	16.4	16.2		ug/Kg		99	67 _ 130	

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-153611/2-A

**Matrix: Solid** 

Analysis Batch: 154261

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 153611** 

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	94		63 - 124
Tetrachloro-m-xylene	85		59 - 115

Lab Sample ID: 280-37307-A-1-B MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

**Prep Type: Total/NA Prep Batch: 153611** Analysis Batch: 154261 MS MS %Rec. Sample Sample Spike

	Sample	Sample	Spike	IVIO	IVIO				/ortec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	ND		16.0	ND	D	ug/Kg	<u></u>		54 - 130	
4,4'-DDE	ND		16.0	15.2	D	ug/Kg	₽	95	58 <sub>-</sub> 121	
4,4'-DDT	ND		16.0	15.5	D	ug/Kg	₽	97	57 <sub>-</sub> 133	
Aldrin	ND		16.0	15.4	D	ug/Kg	₽	96	63 <sub>-</sub> 115	
alpha-BHC	ND		16.0	16.0	D	ug/Kg	₽	100	64 - 116	
beta-BHC	ND		16.0	16.5	D	ug/Kg	₩	103	67 - 115	
delta-BHC	ND		16.0	16.3	D	ug/Kg	₽	102	67 - 115	
Dieldrin	ND		16.0	15.1	D	ug/Kg	₩	94	65 - 127	
Endosulfan I	ND		16.0	14.6	D	ug/Kg	₩	91	65 _ 118	
Endosulfan II	ND		16.0	14.4	D	ug/Kg	₩	90	71 - 118	
Endosulfan sulfate	ND		16.0	14.4	D	ug/Kg	₩	90	67 - 123	
Endrin	ND		16.0	17.4	D	ug/Kg	₩	109	77 <sub>-</sub> 134	
Endrin aldehyde	ND		16.0	11.2	D	ug/Kg	\$	70	47 - 115	
gamma-BHC (Lindane)	ND		16.0	15.8	D	ug/Kg	₩	99	63 _ 118	
Heptachlor	ND		16.0	18.5	D	ug/Kg	₩	116	68 - 115	
Methoxychlor	ND		16.0	14.9	JD	ug/Kg	\$	93	67 _ 130	

MS MS

Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 89 D 63 - 124 Tetrachloro-m-xylene 91 D 59 - 115

Lab Sample ID: 280-37307-A-1-C MSD

**Matrix: Solid** 

Analysis Batch: 154261

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

**Prep Batch: 153611** 

Analysis Daton, 104201									i icp	Daton. I	00011
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	ND		16.9	ND	D	ug/Kg	<u>\$</u>		54 - 130	NC	20
4,4'-DDE	ND		16.9	16.7	D	ug/Kg	≎	98	58 <sub>-</sub> 121	10	15
4,4'-DDT	ND		16.9	16.7	D	ug/Kg	₽	99	57 - 133	7	29
Aldrin	ND		16.9	16.9	D	ug/Kg	\$	100	63 - 115	9	50
alpha-BHC	ND		16.9	17.5	D	ug/Kg	₽	103	64 - 116	9	17
beta-BHC	ND		16.9	18.2	D	ug/Kg	₽	107	67 - 115	9	17
delta-BHC	ND		16.9	17.9	D	ug/Kg	*	106	67 - 115	10	19
Dieldrin	ND		16.9	16.5	D	ug/Kg	₽	97	65 - 127	9	25
Endosulfan I	ND		16.9	16.0	D	ug/Kg	₽	95	65 - 118	9	26
Endosulfan II	ND		16.9	15.6	D	ug/Kg	₽	92	71 - 118	8	20
Endosulfan sulfate	ND		16.9	15.5	D	ug/Kg	₽	91	67 - 123	7	22
Endrin	ND		16.9	19.2	D	ug/Kg	₽	114	77 - 134	10	30
Endrin aldehyde	ND		16.9	11.7	D	ug/Kg	₽	69	47 - 115	4	29
gamma-BHC (Lindane)	ND		16.9	17.3	D	ug/Kg	₽	102	63 - 118	9	24
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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-37307-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA **Prep Batch: 153611** Analysis Batch: 154261

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Heptachlor	ND		16.9	20.3	D	ug/Kg	₩	120	68 - 115	9	18
Methoxychlor	ND		16.9	16.1	JD	ug/Kg	₩	95	67 - 130	8	23

MSD MSD %Recovery Qualifier Surrogate Limits 88 D DCB Decachlorobiphenyl 63 - 124 Tetrachloro-m-xylene 96 D 59 - 115

#### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-153412/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 154352 **Prep Batch: 153412** 

	MB I	MB							
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		31	4.8	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1221	ND		45	15	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1232	ND		31	4.9	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1242	ND		31	8.7	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1248	ND		31	5.3	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1254	ND		31	5.3	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1260	ND		31	2.5	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1262	ND		31	11	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
PCB-1268	ND		31	3.8	ug/Kg		12/21/12 16:15	12/31/12 18:49	1
Polychlorinated biphenyls, Total	ND		31	2.5	ug/Kg		12/21/12 16:15	12/31/12 18:49	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac DCB Decachlorobiphenyl 84 59 - 130 12/21/12 16:15 12/31/12 18:49 Tetrachloro-m-xylene 86 53 - 128 12/21/12 16:15 12/31/12 18:49

Lab Sample ID: LCS 280-153412/3-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 154352

PCB-1016

	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
PCB-1016	 61.0	57.9		ug/Kg		95	54 - 132		-
PCB-1260	61.0	60.3		ug/Kg		99	62 - 129		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	85		59 - 130
Tetrachloro-m-xylene	87		53 - 128

ND

Lab Sample ID: 280-37285-1 MS								Clie	ent Sample ID: NW-02-O
Matrix: Solid									Prep Type: Total/NA
Analysis Batch: 154352									Prep Batch: 153412
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits

66.4

ug/Kg

96

54 - 132

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**Prep Batch: 153412** 

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-37285-1 MS

Matrix: Solid

Analysis Batch: 154352

Client Sample ID: NW-02-O Prep Type: Total/NA

**Prep Batch: 153412** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1260	24	J	69.4	77.1		ug/Kg	\$	76	62 - 129	

MS MS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	65		59 - 130
Tetrachloro-m-xylene	87		53 - 128

Lab Sample ID: 280-37285-1 MSD

Matrix: Solid

Analysis Batch: 154352

Client Sample ID: NW-02-O Prep Type: Total/NA

**Prep Batch: 153412** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND		69.1	67.3		ug/Kg	<del>\tilde{\pi}</del>	97	54 - 132	1	36
PCB-1260	24	J	69.1	73.6		ug/Kg	₽	71	62 - 129	5	44

MSD MSD

MR MR

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	68		59 - 130
Tetrachloro-m-xylene	89		53 - 128

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-153862/1-A

Matrix: Solid

Analysis Batch: 154361

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

**Prep Batch: 153862** 

	IIID	111.0							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		79	14	ug/Kg		12/27/12 08:40	01/02/13 14:16	1
Dinoseb	ND		12	1.4	ug/Kg		12/27/12 08:40	01/02/13 14:16	1
2,4,5-T	ND		20	2.3	ug/Kg		12/27/12 08:40	01/02/13 14:16	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg		12/27/12 08:40	01/02/13 14:16	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	121	X	31 - 105	12/27/12 08:40	01/02/13 14:16	1

Lab Sample ID: LCS 280-153862/2-A

Matrix: Solid

Analysis Batch: 154361

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 153862** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,4-D	88.0	122	*	ug/Kg		138	32 - 115	
Dinoseb	88.0	13.6		ug/Kg		15	5 - 166	
2,4,5-T	91.8	100		ug/Kg		109	24 - 115	
Silvex (2,4,5-TP)	88.0	111		ug/Kg		126	53 - 134	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	105		31 - 105

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 280-37307-A-1-I MS

Matrix: Solid

Analysis Batch: 154361

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

53 \_ 134

Prep Type: Total/NA Prep Batch: 153862

Prep Type: Total/NA

**Prep Batch: 153862** 

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-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,4-D	ND	*	91.1	97.5	JD	ug/Kg	\$	107	32 - 115	
Dinoseb	ND		91.1	ND	D	ug/Kg	₽	0	5 - 166	
2,4,5-T	ND	*	95.0	93.7	JD	ug/Kg	₽	99	24 - 115	
Silvex (2,4,5-TP)	ND		91.1	87.1	JD	ug/Kg	₩	96	53 - 134	

MS MS

Surrogate%RecoveryQualifierLimits2,4-Dichlorophenylacetic acid63D31 - 105

Lab Sample ID: 280-37307-A-1-J MSD

Matrix: Solid

Silvex (2,4,5-TP)

Analysis Batch: 154361

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4-D	ND	*	94.3	105	J D	ug/Kg	*	112	32 - 115	8	40
Dinoseb	ND		94.3	ND	D	ug/Kg	₽	0	5 - 166	NC	50
2,4,5-T	ND	*	98.4	101	D	ug/Kg	₩	103	24 - 115	8	40

94.3

96.0 JD

MSD MSD

ND

Surrogate%RecoveryQualifierLimits2,4-Dichlorophenylacetic acid90D31 - 105

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-153434/1-A

Matrix: Water

Analysis Batch: 153698

Client Sample ID: Method Blank
Prep Type: Total/NA

ug/Kg

Prep Batch: 153434

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	<del></del>	15	4.4	ug/L		12/24/12 07:30	12/24/12 22:21	1
Barium	2.59	J	10	0.58	ug/L		12/24/12 07:30	12/24/12 22:21	1
Cadmium	0.650	J	5.0	0.45	ug/L		12/24/12 07:30	12/24/12 22:21	1
Chromium	0.680	J	10	0.66	ug/L		12/24/12 07:30	12/24/12 22:21	1
Lead	ND		9.0	2.6	ug/L		12/24/12 07:30	12/24/12 22:21	1
Selenium	ND		15	4.9	ug/L		12/24/12 07:30	12/24/12 22:21	1
Silver	ND		10	0.93	ug/L		12/24/12 07:30	12/24/12 22:21	1

Lab Sample ID: LCS 280-153434/2-A

Matrix: Water

Analysis Batch: 153698

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 153434

		Spike	LCS	LCS				%Rec.	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Arsenic	1000	990		ug/L		99	88 _ 110	
	Barium	2000	2000		ug/L		100	90 - 112	
	Cadmium	100	103		ug/L		103	88 _ 111	
	Chromium	200	203		ug/L		102	90 - 113	
	Lead	500	489		ug/L		98	89 _ 110	
ı	Selenium	2000	1920		ug/L		96	85 - 112	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-153434/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Prep Batch: 153434 **Analysis Batch: 153698** LCS LCS Spike

Analyte Added Result Qualifier Unit %Rec Limits D Silver 50.0 48.2 96 86 - 115 ug/L

Lab Sample ID: 280-37267-K-1-B MS

Client Sample ID: Matrix Spike

**Matrix: Water** Analysis Batch: 153698 Prep Type: Total/NA **Prep Batch: 153434** 

-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	ND		1000	1030		ug/L		103	84 - 124	
Barium	30	В	2000	2060		ug/L		101	85 - 120	
Cadmium	0.75	JB	100	105		ug/L		105	82 _ 119	
Chromium	1.1	JВ	200	205		ug/L		102	73 _ 135	
Lead	ND		500	483		ug/L		97	89 - 121	
Selenium	ND		2000	1950		ug/L		97	71 - 140	
Silver	ND		50.0	49.6		ug/L		99	75 - 141	

Lab Sample ID: 280-37267-K-1-C MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Water** 

Prep Type: Total/NA

Analysis Batch: 153698

Prep Batch: 153434

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Added RPD Limit Analyte Result Qualifier Unit %Rec Limits Arsenic ND 1000 1010 ug/L 101 84 - 124 2 20 Barium 30 B 2000 2010 ug/L 99 85 - 120 2 20 Cadmium 0.75 JB 100 107 ug/L 106 82 - 119 20 Chromium 200 205 102 73 - 135 20 1.1 ug/L 479 500 ND ug/L 96 89 - 121 20 Lead Selenium ND 2000 1920 96 71 - 140 20 ug/L

49.3

ug/L

50.0

Lab Sample ID: MB 280-153633/1-A

Client Sample ID: Method Blank

75 - 141

99

**Matrix: Solid** 

Analysis Batch: 154235

Silver

ND

Prep Type: Total/NA **Prep Batch: 153633** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		1000	76	ug/Kg		12/28/12 07:30	12/28/12 18:52	1
Cadmium	ND		500	41	ug/Kg		12/28/12 07:30	12/28/12 18:52	1
Chromium	ND		1500	58	ug/Kg		12/28/12 07:30	12/28/12 18:52	1
Lead	ND		800	270	ug/Kg		12/28/12 07:30	12/28/12 18:52	1
Selenium	ND		1300	860	ug/Kg		12/28/12 07:30	12/28/12 18:52	1
Silver	ND		1000	160	ug/Kg		12/28/12 07:30	12/28/12 18:52	1

Lab Sample ID: MB 280-153633/1-A Client Sample ID: Method Blank

**Matrix: Solid** Analysis Batch: 154331

мв мв

Prep Type: Total/NA Prep Batch: 153633

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2000	660	ug/Kg		12/28/12 07:30	12/31/12 15:20	1

20

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-153633/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 154235 **Prep Batch: 153633** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Barium	200000	204000		ug/Kg		102	87 - 112	
Cadmium	10000	11000		ug/Kg		110	87 - 110	
Chromium	20000	21700		ug/Kg		108	84 - 114	
Lead	50000	52100		ug/Kg		104	86 - 110	
Selenium	200000	209000		ug/Kg		104	83 - 110	
Silver	5000	5250		ug/Kg		105	87 - 114	

Lab Sample ID: LCS 280-153633/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Solid** 

Silver

Analysis Batch: 154331 **Prep Batch: 153633** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits

ND

Arsenic	100000	98300	ug/Kg	98	85 - 110
Г					
Lab Sample ID: 280-37285-1 MS				Cli	ient Sample ID: NW-02-O
Matrix: Solid					Prep Type: Total/NA
Analysis Batch: 154235					Prep Batch: 153633

Allalysis Datcii. 134233									Lieb De	atcii. 155655
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Barium	120000		196000	291000		ug/Kg	<u> </u>	88	52 - 159	
Cadmium	620		9790	10500		ug/Kg	₩	101	40 - 130	
Chromium	13000		19600	36000		ug/Kg	₽	119	70 - 200	
Lead	220000		48900	169000	4	ug/Kg	₽	-94	70 - 200	
Selenium	ND		196000	185000		ug/Kg	₩	95	76 - 104	

Lab Sample ID: 280-37285-1 MS Client Sample ID: NW-02-O **Matrix: Solid** Prep Type: Total/NA Prep Batch: 153633

4940

ug/Kg

101

75 - 141

Analysis Batch: 154331									Prep	Batch: 15	3633
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Arsenic	4000		97900	89900		ug/Kg	<del> </del>	88	76 - 111		

Lab Sample ID: 280-37285-1 MSD	)							CI	ient Samp	le ID: NV	V-02-O
Matrix: Solid									Prep	Type: To	tal/NA
Analysis Batch: 154235									Prep	Batch: 1	53633
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	120000		182000	284000		ug/Kg	₩	92	52 - 159	2	20
Cadmium	620		9110	9810		ug/Kg	₩	101	40 - 130	7	20
Chromium	13000		18200	36400		ug/Kg	₩	130	70 - 200	1	20
Lead	220000		45500	186000	4	ug/Kg	₩	-65	70 - 200	9	20
Selenium	ND		182000	172000		ug/Kg	₩	95	76 - 104	7	20
Silver	ND		4550	4660		ug/Kg	₩	102	75 - 141	6	20
	Barium Cadmium Chromium Lead Selenium	Analyte         Result           Barium         120000           Cadmium         620           Chromium         13000           Lead         220000           Selenium         ND	Barium         120000           Cadmium         620           Chromium         13000           Lead         220000           Selenium         ND	Analyte         Result         Qualifier         Added           Barium         120000         182000           Cadmium         620         9110           Chromium         13000         18200           Lead         220000         45500           Selenium         ND         182000	Analyte         Result and partial par	Analyte         Result dark         Qualifier         Added Added         Result dark         Qualifier           Barium         120000         182000         284000           Cadmium         620         9110         9810           Chromium         13000         18200         36400           Lead         220000         45500         186000         4           Selenium         ND         182000         172000	Analyte         Result dark         Qualifier         Added Added dark         Result dark         Qualifier durit         Unit           Barium         120000         182000         284000         ug/Kg           Cadmium         620         9110         9810         ug/Kg           Chromium         13000         18200         36400         ug/Kg           Lead         220000         45500         186000         4         ug/Kg           Selenium         ND         182000         172000         ug/Kg	Analyte         Result and particular and particu	Analyte         Result arium         Qualifier         Added Added         Result arium         Qualifier         Unit ug/Kg         D %Rec           Cadmium         620         9110         9810         ug/Kg         101           Chromium         13000         18200         36400         ug/Kg         130           Lead         220000         45500         186000         4 ug/Kg         65           Selenium         ND         182000         172000         ug/Kg         95	Analyte         Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits           Barium         120000         182000         284000         ug/Kg         92         52 - 159           Cadmium         620         9110         9810         ug/Kg         101         40 - 130           Chromium         13000         18200         36400         ug/Kg         130         70 - 200           Lead         220000         45500         186000         4         ug/Kg         65         70 - 200           Selenium         ND         182000         172000         ug/Kg         95         76 - 104	Analyte         Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           Barium         120000         182000         284000         ug/Kg         \$ 92         52 - 159         2           Cadmium         620         9110         9810         ug/Kg         \$ 101         40 - 130         7           Chromium         13000         18200         36400         ug/Kg         \$ 130         70 - 200         1           Lead         220000         45500         186000         4         ug/Kg         \$ -65         70 - 200         9           Selenium         ND         182000         172000         ug/Kg         \$ 95         76 - 104         7

Client Sample ID: NW-02-O

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-37285-1 MSD

**Matrix: Solid** 

Analyte

Arsenic

Analysis Batch: 154331

Prep Type: Total/NA **Prep Batch: 153633** Sample Sample Spike MSD MSD %Rec. Result Qualifier Added %Rec Limit Result Qualifier D Limits RPD Unit

ug/Kg

83500

Lab Sample ID: MB 280-153635/1-A

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: Method Blank **Prep Type: Total Recoverable** 

76 - 111

87

**Prep Batch: 153635** 

мв мв

4000

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 12:00	12/31/12 20:30	1
Barium	ND		10	0.58	ug/L		12/28/12 12:00	12/31/12 20:30	1
Cadmium	ND		5.0	0.45	ug/L		12/28/12 12:00	12/31/12 20:30	1
Chromium	ND		10	0.66	ug/L		12/28/12 12:00	12/31/12 20:30	1
Lead	ND		9.0	2.6	ug/L		12/28/12 12:00	12/31/12 20:30	1
Selenium	5.20	J	15	4.9	ug/L		12/28/12 12:00	12/31/12 20:30	1
Silver	ND		10	0.93	ug/L		12/28/12 12:00	12/31/12 20:30	1

91100

Lab Sample ID: LCS 280-153635/2-A

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: Lab Control Sample

**Prep Type: Total Recoverable** 

**Prep Batch: 153635** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1000	1050		ug/L		105	88 - 110	
Barium	2000	2080		ug/L		104	90 - 112	
Cadmium	100	109		ug/L		109	88 - 111	
Chromium	200	206		ug/L		103	90 _ 113	
Lead	500	522		ug/L		104	89 _ 110	
Selenium	2000	2100		ug/L		105	85 - 112	
Silver	50.0	53.6		ug/L		107	86 _ 115	

Lab Sample ID: 280-37307-D-4-C MS

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: Matrix Spike

**Prep Type: Dissolved** 

**Prep Batch: 153635** 

	Sample S	Sample	Spike	MS	MS				%Rec.	
Analyte	Result C	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	ND		1000	1070		ug/L		107	84 - 124	
Barium	170		2000	2250		ug/L		104	85 - 120	
Cadmium	0.48 J	J	100	109		ug/L		108	82 - 119	
Chromium	ND		200	206		ug/L		103	73 - 135	
Lead	ND		500	505		ug/L		101	89 - 121	
Selenium	11 J	JB	2000	2070		ug/L		103	71 - 140	
Silver	ND		50.0	54.2		ug/L		108	75 - 141	

Lab Sample ID: 280-37307-D-4-D MSD

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Dissolved** 

**Prep Batch: 153635** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	ND		1000	1040		ug/L		104	84 - 124	2	20
Barium	170		2000	2230		ug/L		103	85 - 120	1	20
Cadmium	0.48	J	100	107		ug/L		107	82 - 119	1	20

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-37307-D-4-D MSD	Client Sample ID: Matrix Spike Duplicate
Matrix: Water	Pren Tyne: Dissolved

Matrix: Water **Analysis Batch: 154339 Prep Batch: 153635** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	•	•	Added			Unit	D	%Rec	Limits	RPD	Limit
Chromium	ND		200	203		ug/L		101	73 - 135	2	20
Lead	ND		500	499		ug/L		100	89 - 121	1	20
Selenium	11	JB	2000	2050		ug/L		102	71 - 140	1	20
Silver	ND		50.0	53.0		ug/L		106	75 - 141	2	20
	Chromium Lead Selenium	Analyte         Result           Chromium         ND           Lead         ND           Selenium         11	Chromium         ND           Lead         ND           Selenium         11 J B	Analyte         Result Oualifier         Added Added           Chromium         ND         200           Lead         ND         500           Selenium         11 J B         2000	Analyte         Result Chromium         Qualifier ND         Added 200         Result 203           Lead         ND         500         499           Selenium         11         J B         2000         2050	Analyte         Result         Qualifier         Added         Result         Qualifier           Chromium         ND         200         203           Lead         ND         500         499           Selenium         11         J B         2000         2050	Analyte         Result Chromium         Qualifier         Added Qualifier         Result Qualifier         Unit Unit Qualifier           Lead         ND         500         499         ug/L           Selenium         11         J B         2000         2050         ug/L	Analyte         Result Chromium         Qualifier         Added Qualifier         Result Qualifier         Unit Ug/L         D           Lead         ND         500         499         ug/L           Selenium         11 J B         2000         2050         ug/L	Analyte         Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           Chromium         ND         200         203         ug/L         101           Lead         ND         500         499         ug/L         100           Selenium         11         J B         2000         2050         ug/L         102	Analyte         Result Oualifier         Qualifier         Added Added         Result Qualifier         Unit         D         %Rec Limits           Chromium         ND         200         203         ug/L         101         73 - 135           Lead         ND         500         499         ug/L         100         89 - 121           Selenium         11         J B         2000         2050         ug/L         102         71 - 140	Analyte         Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           Chromium         ND         200         203         ug/L         101         73 - 135         2           Lead         ND         500         499         ug/L         100         89 - 121         1           Selenium         11         J B         2000         2050         ug/L         102         71 - 140         1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-153532/1-A Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 154037 мв мв

Result Qualifier RL MDL Unit Prepared Dil Fac Analyte Analyzed 0.0290 J 0.20 0.027 ug/L 12/27/12 12:00 12/27/12 17:55 Mercury

Lab Sample ID: LCS 280-153532/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 154037 **Prep Batch: 153532** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits

Mercury 5.00 4.81 96 84 - 120 ug/L

Lab Sample ID: 280-37316-A-1-E MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA Analysis Batch: 154037 **Prep Batch: 153532** 

Sample Sample Spike MS MS %Rec. Added Result Qualifier Analyte Result Qualifier Unit %Rec Limits Mercury 0.039 JB 5.00 3.74 F ug/L 75 - 125

Lab Sample ID: 280-37316-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 154037 **Prep Batch: 153532** Sample Sample Spike MSD MSD %Rec. Result Qualifier babbA Result Qualifier Analyte Unit %Rec Limits **RPD** Limit Mercury 0.039 JB 5 00 3.70 F ug/L 75 - 125

Lab Sample ID: MB 280-154019/1-A Client Sample ID: Method Blank

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 154241 **Prep Batch: 154019** 

мв мв Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.20 0.027 ug/L 12/28/12 11:15 12/28/12 15:15 Mercury ND

Lab Sample ID: LCS 280-154019/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 154241 Prep Batch: 154019

LCS LCS %Rec. Spike Added Analyte Result Qualifier Unit %Rec 5.00 4.98 ug/L 100 84 - 120 Mercury

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Prep Type: Total/NA

**Prep Batch: 153532** 

Project/Site: U.S.6 at I-25

Client: RMC Consultants Inc

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 280-37285-2 MS Client Sample ID: NW-02-GW **Matrix: Water Prep Type: Dissolved** Analysis Batch: 154241 **Prep Batch: 154019** MS MS

Sample Sample Spike Result Qualifier Added Result Qualifier %Rec Limits Analyte Unit D 5.00 75 - 125 Mercury ND 5.05 ug/L 101

Lab Sample ID: 280-37285-2 MSD Client Sample ID: NW-02-GW **Matrix: Water Prep Type: Dissolved** Analysis Batch: 154241 Prep Batch: 154019 Sample Sample Spike MSD MSD

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Mercury ND 5.00 5.08 ug/L 102 75 - 125 20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-153674/1-A Client Sample ID: Method Blank

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 153837 **Prep Batch: 153674** MR MR

Analyte Result Qualifier MDL Unit Prepared Analyzed Dil Fac 17 Mercury ND 5.5 ug/Kg 12/26/12 11:35 12/26/12 15:13

Lab Sample ID: LCS 280-153674/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 153837 **Prep Batch: 153674** LCS LCS Spike %Rec.

Analyte Added Result Qualifier Unit D %Rec Limits 417 420 Mercury 101 87 \_ 111 ug/Kg

Lab Sample ID: 280-37285-1 MS Client Sample ID: NW-02-O **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 153837 Prep Batch: 153674

Sample Sample Spike MS MS %Rec. Added Result Qualifier Result Qualifier Limits Analyte Unit D %Rec 436 65 87 - 111 Mercury 120 399 ug/Kg

Lab Sample ID: 280-37285-1 MSD Client Sample ID: NW-02-O **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 153837 **Prep Batch: 153674** MSD MSD Sample Sample Spike %Rec. RPD Added RPD Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Limit Mercury 120 494 490 F ug/Kg 87 \_ 111 20 20

Method: 1664A - Oil & Grease (HEM)

Lab Sample ID: MB 280-154167/1-A Client Sample ID: Method Blank

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 154181 **Prep Batch: 154167** 

мв мв Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac HEM (Oil & Grease) ND 5.0 1.4 mg/L 12/29/12 09:20 12/29/12 13:14

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-2

Method:	1664A -	Oil &	Grease	(HEM)	(Continued)
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Lab Sample ID: LCS 280-154167/2-A					Client	Sample	ID: Lab C	ontrol Sample
Matrix: Water							Prep 1	Type: Total/NA
Analysis Batch: 154181							Prep	Batch: 154167
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
HEM (Oil & Grease)	40.0	37.5		mg/L		94	81 - 107	

Lab Sample ID: LCSD 280-154167/3-A				Cli	ent Sam	ple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Water							Prep 1	Type: To	al/NA
Analysis Batch: 154181							Prep I	Batch: 1	54167
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
HEM (Oil & Grease)	40.0	35.3		mg/L		88	81 - 107	6	22

Method: 9040C - pH

Lab Sample ID: LCS 280-153547/42	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
Analysis Ratch: 153547	

Lab Sample ID: LCSD 280-153547/43

	<b>Бріке</b>	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
pH adj. to 25 deg C	7.00	7.010		SU		100	99 - 101	

Matrix: Water							Prep 1	Type: To	tal/NA
Analysis Batch: 153547									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
pH adj. to 25 deg C	7.00	7.010		SU		100	99 - 101		5

pri adj. to 25 deg C	7.00	7.010	30	100	33 - 101	U	3
— —							
Lab Sample ID: 280-37285-2 DU				Clien	it Sample ID: N	IW-02-G	W

**Matrix: Water** Analysis Batch: 153547

Lab Sample ID: LCS 280-154179/4

_	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
pH adi, to 25 deg C	7.00		7.000		SU				

watrix: water							Prep i	ype: rotai/i	NA
Analysis Batch: 154179									
	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
pH adi, to 25 deg C	7.00	7.050		SU		101	99 - 101		

Lab Sample ID: LCSD 280-154179/5 Matrix: Water Analysis Batch: 154179				Cli	ient Sam	ple ID:	Lab Contro Prep 1	ol Sampl Type: Tot	•
Analysis Batch: 154179	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
pH adj. to 25 deg C	7.00	7.050		SU		101	99 - 101	0	5

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**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

**Client Sample ID: Lab Control Sample Dup** 

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 9040C - pH (Continued)

Lab Sample ID: 280-37417-B-2 DU **Client Sample ID: Duplicate Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154179

•	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
pH adj. to 25 deg C	7.30		7.350		SU	_	 0.7	5
Temperature	20.0		20.00		Degrees C		0	10

**Method: Moisture - Percent Moisture** 

Lab Sample ID: 280-37358-A-1 DU **Client Sample ID: Duplicate** Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 153758

DU DU RPD Sample Sample Result Qualifier Result Qualifier Limit Unit **RPD** Percent Moisture 9.7 % 9.9 20 Percent Solids 90 90 %

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-153834/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 153834

мв мв

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND	4.0	1.1 mg/L			12/26/12 15:40	1

Lab Sample ID: LCS 280-153834/1 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 153834

		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Suspended Solids	 	100	95.0		mg/L		95	86 - 114	

Lab Sample ID: LCSD 280-153834/2 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 153834

	<b>Spike</b>	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Total Suspended Solids	100	100		ma/L		100	86 - 114	5	20	

Lab Sample ID: 280-37290-D-6 DU Client Sample ID: Duplicate **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 153834

	Sample	Sample	DU	DU				RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	
Total Suspended Solids	24		23.2		mg/L		 3	10	

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NW-02-O

Date Collected: 12/20/12 08:40

Date Received: 12/20/12 16:44

Lab Sample ID: 280-37285-1

**Matrix: Solid** Percent Solids: 95.5

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.045 g	5 mL	153850	12/26/12 16:00	LMH	TAL DEN
Total/NA	Analysis	8260B		1			153854	12/27/12 02:53	LMH	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	153611	12/24/12 11:15	SPF	TAL DEN
Total/NA	Analysis	8081A		1			154063	12/28/12 20:50	AMP	TAL DEN
Total/NA	Prep	3546			30.0 g	10000 uL	153412	12/21/12 16:15	SHO	TAL DEN
Total/NA	Analysis	8082		1			154352	12/31/12 19:35	TDJ	TAL DEN
Total/NA	Prep	8151A			51.8 g	10000 uL	153862	12/27/12 08:40	AA	TAL DEN
Total/NA	Analysis	8151A		5			154361	01/02/13 21:01	KJH	TAL DEN
Total/NA	Prep	7471A			0.52 g	50 mL	153674	12/26/12 11:35	JM	TAL DEN
Total/NA	Analysis	7471A		1			153837	12/26/12 15:17	JM	TAL DEN
Total/NA	Prep	3050B			1.09 g	100 mL	153633	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 18:57	HEB	TAL DEN
Total/NA	Analysis	6010B		1			154331	12/31/12 15:25	HEB	TAL DEN
Total/NA	Analysis	Moisture		1			153758	12/26/12 10:50	AFB	TAL DEN

Client Sample ID: NW-02-GW Lab Sample ID: 280-37285-2 Date Collected: 12/20/12 11:55

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	153993	12/28/12 12:48	TW	TAL DE
Total/NA	Prep	3520C			1029.2 mL	1000 uL	153406	12/22/12 15:00	ACF	TAL DE
Total/NA	Analysis	8270C		1			153874	12/27/12 15:43	MGH	TAL DE
Total/NA	Prep	3010A			50 mL	50 mL	153434	12/24/12 07:30	JA	TAL DE
Total/NA	Analysis	6010B		1			153698	12/24/12 22:43	LT	TAL DE
Total/NA	Prep	7470A			30 mL	30 mL	153532	12/27/12 12:00	JM	TAL DE
Total/NA	Analysis	7470A		1			154037	12/27/12 18:20	JM	TAL DE
Dissolved	Prep	7470A			30 mL	30 mL	154019	12/28/12 11:15	JM	TAL DE
Dissolved	Analysis	7470A		1			154241	12/28/12 15:20	JM	TAL DE
Dissolved	Prep	3005A			50 mL	50 mL	153635	12/28/12 12:00	RC	TAL DE
Dissolved	Analysis	6010B		1			154339	12/31/12 20:34	HEB	TAL DE
Total/NA	Analysis	SM 2540D		1	10 mL	250 mL	153834	12/26/12 15:40	MW	TAL DE
otal/NA	Analysis	9040C		1			154179	12/29/12 12:16	DA	TAL DE
otal/NA	Prep	1664A			280 mL	1000 mL	154167	12/29/12 09:20	AFB	TAL DE
Total/NA	Analysis	1664A		1			154181	12/29/12 13:14	AFB	TAL DE

Client Sample ID: NW-02-25 Lab Sample ID: 280-37285-3

Date Collected: 12/20/12 09:33 **Matrix: Solid** 

Date Received: 12/20/12 16:44 Percent Solids: 85.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.173 g	5 mL	153984	12/27/12 16:00	LMH	TAL DEN
Total/NA	Analysis	8260B		1			153976	12/28/12 05:29	LMH	TAL DEN

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NW-02-25

Date Collected: 12/20/12 09:33 Date Received: 12/20/12 16:44 Lab Sample ID: 280-37285-3

Matrix: Solid Percent Solids: 85.9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			32.0 g	10000 uL	153611	12/24/12 11:15	SPF	TAL DEN
Total/NA	Analysis	8081A		1			154063	12/28/12 21:08	AMP	TAL DEN
Total/NA	Prep	3546			33.1 g	10000 uL	153412	12/21/12 16:15	SHO	TAL DEN
Total/NA	Analysis	8082		1			154352	12/31/12 20:45	TDJ	TAL DEN
Total/NA	Prep	8151A			51.2 g	10000 uL	153862	12/27/12 08:40	AA	TAL DEN
Total/NA	Analysis	8151A		1			154361	01/02/13 21:24	KJH	TAL DEN
Total/NA	Prep	7471A			0.69 g	50 mL	153674	12/26/12 11:35	JM	TAL DEN
Total/NA	Analysis	7471A		1			153837	12/26/12 15:24	JM	TAL DEN
Total/NA	Prep	3050B			1.19 g	100 mL	153633	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:17	HEB	TAL DEN
Total/NA	Analysis	6010B		1			154331	12/31/12 14:57	HEB	TAL DEN
Total/NA	Analysis	Moisture		1			153758	12/26/12 10:50	AFB	TAL DEN

Client Sample ID: NW-02-37 Lab Sample ID: 280-37285-4

Date Collected: 12/20/12 10:04 Date Received: 12/20/12 16:44 Matrix: Solid
Percent Solids: 77.4

die Receiveu	. 12/20/12 16.4	+4							Percent	3011uS. 77.4
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.023 g	5 mL	153984	12/27/12 16:00	LMH	TAL DEN
Total/NA	Analysis	8260B		1			153976	12/28/12 06:26	LMH	TAL DEN
Total/NA	Prep	3546			31.0 g	10000 uL	153611	12/24/12 11:15	SPF	TAL DEN
Total/NA	Analysis	8081A		1			154063	12/28/12 21:25	AMP	TAL DEN
Total/NA	Prep	3546			30.6 g	10000 uL	153412	12/21/12 16:15	SHO	TAL DEN
Total/NA	Analysis	8082		1			154352	12/31/12 21:08	TDJ	TAL DEN
Total/NA	Prep	8151A			51.5 g	10000 uL	153862	12/27/12 08:40	AA	TAL DEN
Total/NA	Analysis	8151A		1			154361	01/02/13 21:46	KJH	TAL DEN
Total/NA	Prep	7471A			0.53 g	50 mL	153674	12/26/12 11:35	JM	TAL DEN
Total/NA	Analysis	7471A		1			153837	12/26/12 15:27	JM	TAL DEN
Total/NA	Prep	3050B			1.05 g	100 mL	153633	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:20	HEB	TAL DEN
Total/NA	Analysis	6010B		1			154331	12/31/12 15:00	HEB	TAL DEN
Total/NA	Analysis	Moisture		1			153758	12/26/12 10:50	AFB	TAL DEN
•										

## Laboratory References:

EMLab-OC = EMLab P&K Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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Report for:

**Donna Rydberg** TestAmerica-Denver 4955 Yarrow Street Arvada, CO 80002

Project: 280-37285-1 EML ID: 1008551 Regarding:

Approved by:

Dates of Analysis: Asbestos-EPÁ Method 600/R-93/116: 12-28-2012

Technical Manager Miguel Ines

Thiguel Constantion Ina

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01267))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K, LLC

EMLab ID: 1008551, Page 1 of 2

#### EMLab P&K

3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626 (866) 465-6653 Fax (858) 569-5806 www.emlab.com

Client: TestAmerica-Denver

C/O: Donna Rydberg

Re: 280-37285-1

Date of Sampling: 12-20-2012

Date of Receipt: 12-26-2012

Date of Report: 12-28-2012

#### ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

**Total Samples Submitted:** 1

**Total Samples Analysed:** 1

Total Samples with Layer Asbestos Content > 1%: 0

**Location: NW-02-O (280-37285-1**Lab ID-Version‡: 4508740-1

Sample Layers	Asbestos Content
Gray Soil	ND
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab ID: 1008551, Page 2 of 2

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# **Login Sample Receipt Checklist**

Client: RMC Consultants Inc Job Number: 280-37285-2

Login Number: 37285 List Source: TestAmerica Denver

List Number: 1

Creator: Underwood, Tim

Greater: Chackwood, Tim		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	N/A	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Sampler ID JK

Temperature on Receipt \_

**Custody Record** 

Chain of

**TestAmerica** 

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DISTRIBUTION: WHITE - Returned to Cilent with Report; CANARY - Stays with the Sample; PINK - Field Copy

Comments



THE LEADER IN ENVIRONMENTAL TESTING

#### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37285-3 Client Project/Site: U.S.6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

man Hydery

Attn: Jason L Kahlert

Authorized for release by: 1/23/2013 1:57:37 PM

Donna Rydberg Project Manager II

donna.rydberg@testamericainc.com

····· Links ·····

Review your project results through

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**Have a Question?** 



**Visit us at:** www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

#### **Table of Contents**

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#### **Case Narrative**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

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Job ID: 280-37285-3

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

Client: RMC Consultants Inc.

Project: U.S.6 at I-25

Report Number: 280-37285-3

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

Samples were received at the Denver laboratory on December 20, 2012. The samples arrived in good condition, properly preserved and on ice. The temperature of the cooler upon receipt was 3.1°C. The report is for the reanalysis performed for metals. No other tests are included.

#### **TOTAL METALS WATER**

Sample NW-02-GW (280-37285-2) was re-analyzed for total metals in accordance with EPA SW-846 Method 6010B as requested by the client. The original 6010B results for this sample and re-analysis results are listed below. All results were comparable with the exception of the Cadmium which was quit a bit lower on the second analysis. It was noted that there was quite a bit of sediment in the sample container.

Original results	Re-analysis results
27	27
650	620
8.4	1.6
77	67
54	52
11	11
ND	ND
	27 650 <b>8.4</b> 77 54

All quality control parameters were within the acceptance limits.

TestAmerica Denver 1/23/2013

#### **Definitions/Glossary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

#### **Qualifiers**

#### **Metals**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<b>*</b>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

#### **Detection Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

Lab Sample ID: 280-37285-2

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Client	Sample	יחו	NW.	.no.	.GW

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	27		15	4.4	ug/L		_	6010B	Total/NA
Barium	620		10	0.58	ug/L	1		6010B	Total/NA
Cadmium	1.6	J	5.0	0.45	ug/L	1		6010B	Total/NA
Chromium	67		10	0.66	ug/L	1		6010B	Total/NA
Lead	52		9.0	2.6	ug/L	1		6010B	Total/NA
Selenium	11	J	15	4.9	ug/L	1		6010B	Total/NA

#### **Method Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL DEN

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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#### **Sample Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37285-2	NW-02-GW	Water	12/20/12 11:55	12/20/12 16:44

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#### **Client Sample Results**

Client: RMC Consultants Inc
Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-3

Method: 6010B - Metals (ICP)

Client Sample ID: NW-02-GW
Date Collected: 12/20/12 11:55
Matrix: Water
Date Received: 12/20/12 16:44

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	27	15	4.4	ug/L		01/22/13 13:00	01/23/13 07:41	1
Barium	620	10	0.58	ug/L		01/22/13 13:00	01/23/13 07:41	1
Cadmium	1.6 J	5.0	0.45	ug/L		01/22/13 13:00	01/23/13 07:41	1
Chromium	67	10	0.66	ug/L		01/22/13 13:00	01/23/13 07:41	1
Lead	52	9.0	2.6	ug/L		01/22/13 13:00	01/23/13 07:41	1
Selenium	11 J	15	4.9	ug/L		01/22/13 13:00	01/23/13 07:41	1
Silver	ND	10	0.93	ug/L		01/22/13 13:00	01/23/13 07:41	1

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#### **QC Association Summary**

Client: RMC Consultants Inc
Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37285-3

#### **Metals**

#### **Prep Batch: 156395**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	3010A	_
280-37930-C-11-B MS	Matrix Spike	Total/NA	Water	3010A	
280-37930-C-11-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
LCS 280-156395/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-156395/1-A	Method Blank	Total/NA	Water	3010A	

#### Analysis Batch: 156801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-2	NW-02-GW	Total/NA	Water	6010B	156395
280-37930-C-11-B MS	Matrix Spike	Total/NA	Water	6010B	156395
280-37930-C-11-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	156395
LCS 280-156395/2-A	Lab Control Sample	Total/NA	Water	6010B	156395
MB 280-156395/1-A	Method Blank	Total/NA	Water	6010B	156395

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TestAmerica Job ID: 280-37285-3

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-156395/1-A

Lab Sample ID: LCS 280-156395/2-A

**Matrix: Water** 

Analysis Batch: 156801

Client	Samp	le	ID:	Meth	od	Blan	k
		Dr	nn '	Typo:	Tot	al/N/	١.

Prep Type: Total/NA **Prep Batch: 156395** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		01/22/13 13:00	01/23/13 07:08	1
Barium	ND		10	0.58	ug/L		01/22/13 13:00	01/23/13 07:08	1
Cadmium	ND		5.0	0.45	ug/L		01/22/13 13:00	01/23/13 07:08	1
Chromium	ND		10	0.66	ug/L		01/22/13 13:00	01/23/13 07:08	1
Lead	ND		9.0	2.6	ug/L		01/22/13 13:00	01/23/13 07:08	1
Selenium	ND		15	4.9	ug/L		01/22/13 13:00	01/23/13 07:08	1
Silver	ND		10	0.93	ug/L		01/22/13 13:00	01/23/13 07:08	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Prep Batch: 156395** 

Analysis Batch: 156801 Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits D 1000 88 - 110 Arsenic 1050 ug/L 105 Barium 2000 1990 ug/L 100 90 - 112 Cadmium 100 88 - 111 100 ug/L 100 Chromium 200 202 ug/L 101 90 - 113 Lead 500 495 ug/L 99 89 - 110 Selenium 2000 2000 ug/L 100 85 - 112 50.0 86 - 115 Silver 46.8 ug/L

Lab Sample ID: 280-37930-C-11-B MS Client Sample ID: Matrix Spike

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 156801

Prep Type: Total/NA **Prep Batch: 156395** 

	Sample S	Sample	Spike	MS	MS				%Rec.	
Analyte	Result (	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	ND		1000	1080		ug/L		108	84 - 124	 -
Barium	25		2000	2100		ug/L		104	85 - 120	
Cadmium	ND		100	103		ug/L		103	82 - 119	
Chromium	1.6	J	200	207		ug/L		103	73 - 135	
Lead	ND		500	498		ug/L		100	89 - 121	
Selenium	ND		2000	2050		ug/L		103	71 - 140	
Silver	ND		50.0	48.4		ug/L		97	75 - 141	

Lab Sample ID: 280-37930-C-11-C MSD

**Matrix: Water** 

Analysis Batch: 156801

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

**Prep Batch: 156395** 

	Sample	Sample Sp	ke MSD	MSD			%Rec.		RPD
Analyte	Result	Qualifier Add	ed Result	Qualifier U	Init D	%Rec	Limits	RPD	Limit
Arsenic	ND		00 1090	u	g/L	109	84 - 124	1	20
Barium	25	20	00 2130	u u	g/L	105	85 _ 120	2	20
Cadmium	ND	1	00 104	u	g/L	104	82 - 119	1	20
Chromium	1.6	J 2	00 210	u	g/L	104	73 - 135	1	20
Lead	ND	5	00 502	! u	g/L	100	89 - 121	1	20
Selenium	ND	20	00 2070	u u	g/L	103	71 - 140	1	20
Silver	ND	5	0.0 49.6	i u	g/L	99	75 - 141	2	20

TestAmerica Denver

#### **Lab Chronicle**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37285-3

Lab Sample ID: 280-37285-2

Matrix: Water

Client Sample ID: NW-02-GW Date Collected: 12/20/12 11:55

Date Received: 12/20/12 16:44

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			50 mL	50 mL	156395	01/22/13 13:00	JA	TAL DEN
Total/NA	Analysis	6010B		1			156801	01/23/13 07:41	JKH	TAL DEN

#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

7

8

9

11

12

13

#### **Login Sample Receipt Checklist**

Client: RMC Consultants Inc Job Number: 280-37285-3

Login Number: 37285 List Source: TestAmerica Denver

List Number: 1

Creator: Underwood, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	N/A	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

2

4

1

9

12

1

3. Received By

Date

Sampler ID JK Chain of Custody Record

Temperature on Receipt 3.1

TestAmerica

Tennoerature on Receipt 4.1

Drinking Water? Yes 10 No 1/2

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TestIng

	170749	Lab Number* Page of	Analysis (Attach list it more space is needoch	87. 1304 1304 1404 1408	F 255	109 109 28 109 154 109	× × × ×	XXXXXX	* * *	× × ×	<b>8</b>						(A fee may be assessed if samples are retained Archive For	Archive For Months	Archive For Months forger than 1 month)  Date   Time	Archive For Months	Archive For Months forger than 1 month)  Date   Date   Time	Archive For
1	Project Manager Clave de Mustay	Telephone Number (Area Code)/Fak Number 303 980 4101		Carrier/Waypill Number	Containers & Preservatives	HOSUN HOSUS	12 0840 × 4	1155 14 5 2 2 3	O433 X 3		-						Sample Disposal  M. Unknown	Sample Disposal     Unknown   Return To Client   W Disposal By Lab     OCF Requirements (Specal Bays   Street	Sample Disposal  A Unknown	A Unknown	Days N Other STD OC Requirements (Special Date Inc.)    Column	Days N other STD  Date    Complete Disposal By Lab   Other STD   Ochequirements (Special By Lab   I. Regalived By Lab   I. Regalived By   I. Regalived By   I. Regalived By   I. Complete   I. Regalived By   I. Complete   I. Com
TAL-4124-280 (0508)	Rmc Censultants Inc	12285 W 48Th Ave, UnitA	City State Zip Code	rte)	Contract/Purchase Order/Quote No.	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	NW-02-0	22	NW-02-25	NW-02-37	**************************************					Possible Hazard Identification	Possible Hazard Identification	mable Skin Inttant Poison	mable Skin Inttant Poison	entification    Flammable   Skin Irritant   Poison   Required   14 Bays   14 Days	entification    Flammable   Skin Imitant   Poison   Required   14 Bays   14 Days	mable   Skin Imtant   Poison

Comments

3. Relinquished By



THE LEADER IN ENVIRONMENTAL TESTING

#### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37307-1 Client Project/Site: US 6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

onna Kydeerg

Attn: Jason L Kahlert

Authorized for release by: 1/22/2013 8:48:36 AM

Donna Rydberg Project Manager II

donna.rydberg@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

#### **Case Narrative**

TestAmerica Job ID: 280-37307-1

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Job ID: 280-37307-1

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

Client: RMC Consultants Inc.

Project: US 6 at I-25

Report Number: 280-37307-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### RECEIPT

The samples were received at TestAmerica Denver on December 21, 2012. The samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 4.7°C.

The sample requiring Gross A/B was subbed to the TestAmerica Richland laboratory at 2800 George Washington Way, Richland WA 99352 for analysis. The sample results will be found in this report. All other samples were logged under a separate job and will not be found in this report.

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#### **Analytical Data Package Prepared For**

#### **TestAmerica Denver**

#### Radiochemical Analysis By

#### **TestAmerica**

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL Data Package Contains 17 Pages

Report No.: 54259

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order	r) Lot-Sa No.	Work Order	Report DB ID	Batch No.
46236		SE-01-GW(280-37307-4)	J2L280426-1	MXQR91AC	9MXQR910	3002045
		SE-01-GW(280-37307-4)	J2L280426-1	MXOR91AA	9MXQR910	3002047



#### **Certificate of Analysis**

January 15, 2013

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002

Attention: Donna Rydberg

Date Received by Lab Sample Number/Matrix December 26, 2012 One (1) Water

Sample Number/Matrix SDG Number

46236

Project

RMC Consultants / US 6 at I-25

Project Number

280-37307-1

#### **CASE NARRATIVE**

#### I. Introduction

On December 26, 2012, one water sample was received at the TestAmerica Richland laboratory for radiochemical analysis. Upon receipt, the sample was assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package. The sample was assigned to Lot Number J2L280426.

#### II. Sample Receipt

The sample was received in good condition and no anomalies were noted during check-in.

#### III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

**Gas Proportional Counting** 

Gross Alpha by method RL-GPC-001 Gross Beta by method RL-GPC-001

#### IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

#### V. Comments

#### Gas Proportional Counting

#### Gross Alpha by method RL-GPC-001:

The achieved MDA for sample exceeds the CRDL due to the reduced aliquot size based on weight screens. The sample was counted for the longest time appropriate for the method. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within acceptance limits.

#### Gross Beta by method RL-GPC-001:

The achieved MDA for sample exceeds the CRDL due to the reduced aliquot size based on weight screens. The sample was counted for the longest time appropriate for the method. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Erika Jordan

Eucha C)ordan 2013.01.18

14:34:27 -08'00'

Erika Jordan

Customer Service Manager

**Drinking Water Method Cross References** 

	DRINKING WATER ASTM MI	ETHOD CROSS REFERENCES
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900,0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

#### Results in this report relate only to the sample(s) analyzed.

#### **Uncertainty Estimation**

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties  $(u_i)$  are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty  $(u_c)$  multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Rep	ort D	efinit	ons	;							
1.					-	-	-	 	 	 	 

An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Action Lev Level. Often the Action Level is related to the Decision Limit.

> The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.

Defined by the equation (Result/Expected)-1 as defined by ANSI N13,30.

COC No Chain of Custody Number assigned by the Client or TestAmerica.

Count Error (#s) Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.

Total Uncert (#s) All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure u\_\_Combined of the uncertainty associated with the result,  $u_c$  the combined uncertainty. The uncertainty is absolute and in the Uncertainty. same units as the result.

The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations. (#s), Coverage Factor CRDL (RL)

Batch

Bias

Le

Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default"

nominal detection limit. Often referred to the reporting level (RL)

Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume

associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 \*

Sqrt(2\*(BkgrndCnt/BkgrndCntMin)/SCntMin)) \* (ConvFct/(Eff\*Yld\*Abn\*Vol) \* IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count

is zero.

Lot-Sample No The number assigned by the LIMS software to track samples received on the same day for a given client. The

sample number is a sequential number assigned to each sample in the Lot.

MDC|MDA Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume

with a Type I and II error probability of approximately 5%. MDC = (4.65 \*

Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) \* (ConvFct/(Eff \* Yld \* Abn \* Vol) \* IngrFct). For

LSC methods the batch blank is used as a measure of the background variability.

The instrument identifier associated with the analysis of the sample aliquot. **Primary Detector** 

Ratio U-234/U-238 The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is

1.038.

Ratio of the Result to the MDC. A value greator than 1 may indicate activity above background at a high level of Rst/MDC

confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers

associated with the result.

Rst/TotUcert Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may

indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers

associated with the result.

Report DB No Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order

Number.

The equation Replicate Error Ratio =  $(S-D)/[sqrt(TPUs^2 + TPUd^2)]$  as defined by ICPT BOA where S is the original RER

sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the

total uncertainty of the duplicate sample,

SDG Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.

Sum Rpt Alpha The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where Spec Rst(s) the results are in the same units.

Work Order The LIMS software assign test specific identifier.

Yield The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

#### Sample Results Summary

#### TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

**Report No.:** 54259

**SDG No:** 46237

Date: 15-Jan-13

Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDL	CRDL	RER2
138.0 +- 42.0		pCi/L	100%	24.4	3.0	0.7
22.2 +- 9.8		pCi/L	100%	11.1	3.0	
5.11 + <del>-</del> 3.1	U	pCl/L	100%	5.26	4.0	0.0
25.0 +- 6.2		pCi/L	100%	7,64	4.0	
	138.0 +- 42.0 22.2 +- 9.8 5.11 +- 3.1	138.0 +- 42.0 22.2 +- 9.8 5.11 +- 3.1	138.0 +- 42.0 pCi/L 22.2 +- 9.8 pCi/L 5.11 +- 3.1 U pCl/L	Result +- Uncertainty ( 2s)   Qual   Units   Yield	Result +- Uncertainty ( 2s)   Qual   Units   Yield   MDL	Result +- Uncertainty ( 2s)   Qual   Units   Yield   MDL   CRDL

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#### QC Results Summary TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

**Report No.:** 54259

SDG No.: 46240

Date: 15-Jan-13

Batch Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
RL-GPC-001			•					***,·*****
3002045 BLANK (	QC,							
MXQ7A1AA	ALPHA	0.570 +- 0.44	IJ	pCi/L	100%			0.652
3002045 LCS,				•				
MXQ7A1AC	ALPHA	37.5 +- 8.6		pCi/L	100%	92%	-0.1	0.754
3002045 MATRIX	SPIKE, SE-01-GW(280-37307-4)					, -		****
MXQR91AD	ALPHA	311.0 +- 82.0		pCi/L	100%	101%	0.0	11.3
RL-GPC-001				p				. ,
	SPIKE, 227284-122012(280-37267	-2)						
MXQR31AD	BETA	283.0 +- 38.0		pCi/L	100%	98%	0.0	4:98
3002047 BLANK 0		20010 7.400.0		POIL	10070	30 70	0.0	4.80
MXQ7D1AA	BETA	1.09 +- 1.0	U	mCi/I	100%			4 70
	PHIC	1.08 T- 1.0	U	pCi/L	100%			1.79
3002047 LCS,	En leaste V	40 =						
MXQ7D1AC	BETA	40.7 +- 5.7		pCI/L	100%	100%	0.0	1.84
No. of Results:	В							

Bias - (Result/Expected)-1 as defined by ANSI N13,30.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

## **FORM**

Date: 15-Jan-13

## SAMPLE RESULTS

Lab Name;	TestAmerica	SDG:	46236	Collection Date:	Collection Date: 12/20/2012 11:00:00 PM
Lot-Sample No.: J2L280426-1	J2L280426-1	Report No.: 54259	54259	Received Date:	Received Date: 12/26/2012 11:00:00 AM
Client Sample ID	Client Sample ID: SE-01-GW(280-37307-4)	COC No.:	280-165551.1	Matrix:	WATER
				Orde	Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Qual Error ( 2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Yield Rst/MDL, CRDL(RL) Rst/TotUcerf	Analysis, Prep Date	Total Sa A Size	Aliquot Size	Primary Detector
atch: 3002045	RL-GPC-001			Work Order.	MXQR91AC	Repo	Report DB ID: 9MXQR910	JR910				
ALPHA	22.2		8.4	9.8	11.1 pCi/L	pCi/L	100%	(2)	1/7/13 01:33 p		0.0261	GPC21C
						5.0	3.0	(4.5)			1	
atch: 3002047	RL-GPC-001			Work Order:	MXQR91AA	Repor	Report DB ID: 9MXQR910	2R910				
BETA	25.0		5.2	6.2	7.64 pCi/L	pCi/L	100%	(3.3)	1/7/13 01:14 p		0.0534	GPC28B
						3.68	4.0	(8.1)			<b></b> l	

Batch:

Batch:

Comments: No. of Results: 2

Page 180 of 21

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software. NestAmerica NestAmerica OptSTI.RchSample (\$5.2.23 A2002

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

MDC/MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

RER2 - Replicate Extor Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

MestAmerica N OptsTLRchDupV5. C2.23 A2002

### FORM II

Date: 15-Jan-13

# **DUPLICATE RESULTS**

46235 SDG:

Received Date:

12/26/2012 11:00:00 AM

Collection Date: 12/20/2012 10:30:00 AM

Matrix:

280-165322.1

54259

Report No.: COC No.:

Client Sample ID: 231892-122012(280-37267-1) DUP

TestAmerica

Lab Name:

TestAmerica Laboratories, Inc.

Lot-Sample No.: J2L280423-1

WATER

Primary Detector

Aliquot Size

1/7/13 01:14 p

0.0751

GPC26B

(3.3)0.97

Orig Sa DB ID: 9MXQRX10

Total Sa Size

Analysis, Prep Date

Report DB ID: MXQRX1DR

Yield

Rpt Unit, CRDL

MDL, Action Lev

Uncert(2s)

Count Error ( 2 s)

Qual

Result, Orig Rst

100%

pCi/L 4.0

5.26

3.1

3.1

 $\supset$ 

BETA

RL-GPC-001

Batch: 3002047 Parameter

**RER2 0.3** 

5.85 5.11

Comments:

No, of Results:

Page 191 of 21

Work Order: MXQRX1AD

Rst/MDL, Rst/TotUcert

### 3

Date: 15-Jan-13

# DUPLICATE RESULTS

) AM	1
12/20/2012 11:55:00	
Collection Date: 12/20/2012 11:55:00 AM	
46237	0 1
SDG:	
TestAmerica	101 000 401 4
ab Name:	of Comple No : 101 000 407 4

Lab Name:		TestAmerica	g			SDG:	46237	37		Collection Date: 12/20/2012 11:55:00 AM	12/20/2013	2 11:55:00	AM
Lot-Samp	Lot-Sample No.: J2L280427-1	L280427	7			Report No.:	54259	59		Received Date:	12/26/2012 11:00:00 AM	2 11:00:00	AM
Client San	nple ID: NV	№-02-GW	√(280∹	Client Sample ID: NW-02-GW(280-37285-2) DUP	<u>a</u>	COC No. :		280-165358.1		Matrix:	WATER		
Parameter	R	Result, Orig Rst	Qual	Count Error (2s)	Total Uncert( 2 s)	MDL, Rpt Unit, Action Lev GRDL	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Aliquot Size Size	Aliquot Size	Primary Detector
Batch: 3002045	RL-GPC-001	101			Work Order: M	MXQTD1AD	Report	Report DB ID: MXQTD1DR	ITD1DR	Orig Sa DB ID: 9MXQTD10	TD10		
ALPHA	<b>,</b> -	138.0		27.0	42.0	24.4	pCi/L	100%	(5.7)	1/7/13 01:33 p		0.0126	GPC22C
	1	159.0		RER2 0.7	0.7	•••	3.0		(6.6)			_	

Comments: No. of Results: 1

D TestAmerica N TestAmerica N rptSTLRchDupV5. D 2,23 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

## FORM II

Date: 15-Jan-13

## BLANK RESULTS

TestAmerica
Lab Name:

Matrix: WATER

46240	54259
SDG:	Renort No. :

Parameter	Result	Quai	Count Result Qual Error (2 s)	Total Uncert( 2 s)	MDL, 1.c	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
<b>Batch</b> ; 3002045 ALPHA	RL-GPC-001	Þ	0.42	Work Order: 0.44	MXQ7A1AA 0.652 0.287	Report I pCi/L 3.0	Report DB ID: MXQ7A1AB 100% 0.8 (2.6	27A1AB 0.87 (2.6)	177/13 01:33 p		0.1988 L	GPC23B
<b>Batch:</b> 3002047 BETA	RL-GPC-001	ם	1.0	Work Order: 1.0	MXQ7D1AA 1.79 0.861	Report I pCi/L 4.0	Report DB ID: MXQ7D1AB 100% 0.6 (2.1	0.61 (2.1)	1/7/13 04:55 p		0.1998 L	GPC26B

Comments: No. of Results: 2

NTestAmerica NTestAmerica NCOPtSTLRchBlank CV5.2.23 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Page 1113 of 21

FORM II

Date: 15-Jan-13

**LCS RESULTS** 

46240 SDG:

Report No.: 54259

TestAmerica

Lab Name:

WATER Matrix:

GPC23C GPC26C Primary Detector 0.2002 Aliquot Size 0.2007 1/7/13 01:33 p 1/7/13 04:55 p Analysis, Prep Date Recovery, 100% Bias 92% 9.7 0.0 0.42 Expected 7.6 Uncert 130 130 Report DB ID: MXQ7A1CS Report DB ID: MXQ7D1CS 40.6 40.8 Expected 2 100% 100% Yield Rec Limits: Rec Limits: Report Unit pCi/L 0.754 pCi/L Work Order: MXQ7D1AC Work Order: MXQ7A1AC 1.84 MDL Uncert(2 s) 8.6 5.7 Count Error (2s) 2:1 2.3 Qual Result 37.5 RL-GPC-001 RL-GPC-001 40.7

2

Comments: No. of Results: 2

7/1 TestAmerica C rptSTLRchLcs C V5.2.23 A2002

Bias

- (Result/Expected)-1 as defined by ANSI N13.30.

Batch: 3002045 ALPHA Batch: 3002047

BETA

Parameter

Page 1124 of 21

FORM II

**Date:** 15-Jan-13

# MATRIX SPIKE RESULTS

TestAmerica Lab Name:

46235 SDG: Lot-Sample No.: J2L280423-2, 227284-122012(280-37267-2)

Report No.: 54259

Matrix: WATER

Analy Method, rimary Detector	RL-GPC-001 GPC26D
Aliquot Size P	0.078 L
Analysis, Prep Date	1/7/13 01:14 p
Expected, Uncert	288.0
Rec- overy	Orig Sa DB ID; 9MXQR310 100% 98.33%
Yield	ig Sa DB ID: 100%
Rpt Unit, CRDL	pC://
MDCIMDA	MXQR31DV 4.98
 Total Uncert(2 s)	Report DB 1D: MXQR31DW 38.0 4.98
Count Error (2 s)	R31AD 9.4
, Quaí	Nork Order: MXQR31AD 283.0 9.4
SpikeResult, Orig Rst	Work Or. 283.0 3.71
Parameter	Batch: 3002047 BETA

Number of Results:

Comments:

- Replicate Error Ratio = (S-D)/[sqrt[sq(TPUs)+sq(TPUd))] as defined by ICPT BOA. - (Result/Expected)-1 as defined by ANSI N13.30. RER Bias

## 3

## FORM II

Date: 15-Jan-13

# MATRIX SPIKE RESULTS

Lot-Sample No.: J2L280426-1, SE-01-GW(280-37307-4) TestAmerica Lab Name:

46236 Report No.: 54259 SDG:

Matrix: WATER

					20 12 12 12			1	ı	Afferred	Ansiv Method
Parameter	SpikeResult, Orig Rst	Count Qual Error (2 s)	1otal Uncert(2 s) MDC(MDA	MDC[MDA	Kpt Unit	Yield	rec- overy	Expected, Uncert	Altalysis, Prep Date	Size	Primary Detector
Batch: 3002045	ľ	Work Order: MXQR91AD	Report DB ID: MXC	MXQR91DW		Orig Sa DB ID:	9MXQR910				
ALPHA	311.0	23.0	82.0	11.3	pCi/L	100%	101.47%	306.0	1/7/13 01:33 p	0.0265	RL-GPC-001
	22.2							3.2			GPC22A

Number of Results:

Comments:

- Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA. - (Result/Expected)-1 as defined by ANSI N13.30. RER Bias

V/V NTestAmerica NOptSTLRchMs CV5.2.23 A2002

4955 Yarrow Street		Chain of Custody Record		<b>アンプラスランプランプラー</b>
Arvada, CO 80002 Phonė (303) 736-0100 Fax (303) 431-7171				The leader in environmental testing
Client Information (Sub Contract Lab)	(Sampler:	Lab PM: Rydberg, Donna R	Camer Tracking No(s):	COC No: 280-165551.1
1	Phane:	E-Mait donna.rydberg@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis	Analysis Requested	Job# 280-37307-1
Address: 2800 George Washington Way, ,	Due Date Requested: 1/17/2013			ĕ
Olfy. Richland	TAT Requested (days):			B-NaOH N-None C-Zn Acetate O-AsNaO2 D-Mitric Acid P-Na2O4S
State, zp: WA, 99352				
Phone. 509-375-3131(Tel) 509-375-5590(Fax)	PO#.			Pig
<u>Email:</u>	#OM			J∽ice J∽Di Water K∽FDTA
Project Name: US 6 at I-25	Project #: 28009391	J) [17]		L-EDA
Site:	SSOW#:	Wiei		Other:
	Sample Type Sample (C=comp.	Matrix (Virents, Sasoft, Sasof	uliuluveisi	
Sample Identification - Client ID (Lab ID)	Sample Date Time	BI=Tissue, Arkir)		Special Instructions/Note:
SE-01 - GW (280-37307-4)	12/20/12	Water X		₹
	NOOTH COLUMN			
JEHOSETES				
35 G-46236				
1) se 1-22-13				
Possible Hazard Identification		Sample Disposal ( A fee ma	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	ed longer than 1 month)
Inconfirmed		Return To Cilient	Disposal By Lab	Archive For Months
Deliverable Requested: J, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:	
Relinquished by: Command H. W.	11/1/1	ħ		Company
Relinquished by:	Date/Tuyle: /	Received by: NOT 0729 U.S.Z	in lac	Descrime. When received on 12-20-12 1512-28-12
Relinquished by:	Date/Time:	Company Received by: O		Company
Custody Seals infact:   Custody Seal No.		Coole: Temperatures) "C. and Other Remarks:	bher Remarks:	
SERVICE CONTROL OF TH				

TestAmerica Denver



#### Sample Check-in List

Client: SDG #: NA[] SAF #: NA[
Chain of Custody # 250-10551. \ Shipping Container ID:NAD  Samples received inside shipping container/cooler/box Yes
Shipping Container ID:NA
Samples received inside shipping container/cooler/box  Yes [3] Continue with 1 through 4. Initial appropriate response
*
No [ ] Go to 5, add comment to #16.
1. Custody Seals on shipping container intact? Yes 🖒 ] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature:°C NA [5]
4. Vermiculite/packing materials is NA[] Wet[] Dry [ ]
Item 5 through 16 for samples. <u>Initial</u> appropriate response.
5. Chain of Custody record present? Yes [ No [ ]
6. Number of samples received (Each sample may contain multiple bottles):
7. Containers received: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
8. Sample holding times exceeded? NA[] Yes[] No [ ]
9. Samples have:
tape hazard labels custody seals grappropriate sample labels
10. Matrix:
A (FLT, Wipe, Solid, Soil)
11. Samples:
are in good condition are broken  Other  are leaking have air bubbles (Only for samples requiring no head space
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ] (If acidification is necessary, then document sample ID, initial pH, amount of HNO <sub>3</sub> added and pH after addition on table overleaf)
RPL ID # of preservative used : N H
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NANJ
1

15.	Sample Location, Sample Collector Lis *For documentation only. No corrective	ted on COC? * Yes [ ] No [ ] re action needed.
16.	Additional Information: NA	·
	Tient/Covering denied tommerstand to all	
[ ],	Client/Courier denied temperature check.	[ ] Client/Courier unpack cooler.
Samp	ole Custodian: Soc	Date: 12-27-13
	( )	
C	Client Informed onby	Person contacted
	Project Manager	ORD Date 12/13

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH
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LS-023, Rev. 14, 06/11

See over for additional information.

Client: RMC Consultants Inc

List Source: TestAmerica Denver

Job Number: 280-37307-1

Login Number: 37307 List Number: 1

Creator: Underwood, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Time

**TestAmerica** 

THE LEADER IN ENVIRONMENTAL TESTING Temperature on Receipt 472 JRH # Co/v/2.

Drinking Water? Yes □ No-X

Chain of Custody Record

Sampler ID

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	Project Manager
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	Chain of Custody Number 170756	1	Page / of /	-		Special Instructions/	Conditions of Receipt					
•	Date /2///2	Lab Number	~ <u>~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ </u>	sistemate list	2 190 I- Z-	11,00	1 50 0-1: 0-1: 16/4 16/4	29 1991 2 10/09	,			メメメ
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/	AUDE DE MURRA	)/Fax Number		DOWN'S RYDBERG			Containers & Preservatives	Unpres.	7	М	3	3   23
	Project Manager	Felephone Number (Area Code)/Fax Number	303/980 4/01	Site Contact	Carrier/Waybill Number		Matrix	suceupy best lio2	×	×	X	х X
				Zip Code				Date Time	12-20-12 2020	12,20,12 2108	12,20,12 2125	12.20,12 2300
TAL-4124-280 (0508)	CONSULTANTS, INC	Address	12295 W. 48th HIR	City State Zip	ate)	1156 & I-25	Contract/Purchase Order/Quote No.	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	SE-01-(0-2)	SE-01-(24-26)	< F-01-134-36)	SE-01- EW

	nger than 1 month)  Date  Date  Bate	Months	ole Disposal Setum To Client Time Time	Possible Hazard Identification    Non-Hazard   Chammable   Skin Imitant   Poison B   Unitum Around Time Required   14 Days   14 Days   21 Days   1. Relinquished By
	Date	3. Received By	Date Time 3	
	Batel	2. Received By /	/ Time	-
2. Received By /	41/2/11	Allow Tright	7/1/2/2/1/2	Grand 1
Worsenth 12/12/12 (Many ) mall B	Date	1. Received By	Time	1
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7 Days 14 Days 21 Days Protiner STD GC Requirements (Specify)  1. Received By	nger than 1 month)		☐ Return To Client	Skin Irritant Poison B
Skin Initiant   Poison B   Unknown   Return To Client   Disposal By Lab   Archive For Months   Nonger than 1 month)    7 Days   14 Days   21 Days   Cother   STD   QC Requirements (Specify)	A fee may be assessed if samples are r			
Skin Intrant				

DISTRIBUTION: WHITE - Returned to Client with Report, CANARY - Stays with the Sample; PINK - Field Copy

## <u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

#### **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37307-2 Client Project/Site: US 6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

Attn: Jason L Kahlert



Authorized for release by: 1/8/2013 1:28:18 PM
Jamie Ide

Project Mgmt. Assistant jamie.ide@testamericainc.com

Designee for

Donna Rydberg Project Manager II

donna.rydberg@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

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Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

Job ID: 280-37307-2

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

**Client: RMC Consultants Inc** 

Project: US 6 at I-25

Report Number: 280-37307-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### RECEIPT

The samples were received at TestAmerica Denver on December 21, 2012. The samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 4.7°C.

The sample requiring Gross A/B was subbed to the TestAmerica Richland laboratory at 2800 George Washington Way, Richland WA 99352 for analysis. This sample was logged and will be reported under a separate job (280-37307-1). Data will not be found in this report.

The report for the Asbestos sample will be found at the back of this report.

### **VOLATILE ORGANIC COMPOUNDS (GC-MS) SOIL**

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Acetone and Bromoform were detected in method blank MB 280-153850/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS provides evidence of batch precision and accuracy.

No other difficulties were encountered during the VOC analyses.

#### **VOLATILE ORGANIC COMPOUNDS (GC-MS) WATER**

Sample SE-01 - GW (280-37307-4) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Methylene Chloride was detected in method blank MB 280-153993/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS provides evidence of batch precision and accuracy.

TestAmerica Denver 1/8/2013

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

TestAmerica Job ID: 280-37307-2

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### SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Laboratory: TestAmerica Denver (Continued)

No other difficulties were encountered during the volatiles analysis.

Job ID: 280-37307-2 (Continued)

Sample SE-01 - GW (280-37307-4) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS and LCSD provide evidence of batch precision and accuracy.

No difficulties were encountered during the SVOC analysis.

### **ORGANOCHLORINE PESTICIDES**

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for organochlorine pesticides in accordance with EPA SW-846 Method 8081A.

The following samples were diluted due to the nature of the sample matrix: SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2), SE-01 - (34-36) (280-37307-3). Elevated reporting limits (RLs) are provided. As a result the surrogate and MS/MSD recoveries were

The MS and MSD samples associated with batch 280-153611, and performed on client sample SE-01 - (0-2) (280-37307-1) were analyzed at a dilution due to the sample matrix; causing spike recoveries to be outside control limits for some compounds. The associated LCS was in control and provides evidence that operating procedures were in control.

No other difficulties were encountered during the pesticides analyses.

### POLYCHLORINATED BIPHENYLS (PCBS)

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082.

The surrogate Decachlorobiphenyl recovered outside of control limits for the following samples: SE-01 - (0-2) (280-37307-1), SE-01 -(34-36) (280-37307-3), SE-01 - (0-2)MS (280-37307-1MS), SE-01 - (0-2)MSD (280-37307-1MSD). Matrix interference is evident. The associated MB and LCS were within control limits, and the surrogate Tetrachloro-m-xylene was in control indicating a successful extraction. Therefore; re-extraction and reanalysis were not performed.

The MS and MSD samples associated with batch 280-153611, and performed on client sample SE-01 - (0-2) (280-37307-1) demonstrated spike recoveries outside control limits for PCB 1260, matrix interference is evident. The associated LCS was in control and provides evidence that operating procedures were in control.

No other difficulties were encountered during the PCBs analyses.

### **CHLORINATED HERBICIDES**

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A.

Sample SE-01 - (0-2) (280-37307-1) was analyzed at a dilution to protect the integrity of the instrument due to the nature of the sample matrix (the extract was dark yellow/brown in color). The reporting limits were raised accordingly.

The surrogate recovery method blank MB 280-153862/1-A was outside control limits biased high. There were no target analytes detected in the method blank. Therefore, data was not compromised. Also all associated sample surrogates fell within acceptance criteria; therefore, the data have been reported.

The laboratory control sample (LCS) for prep batch 280-154361 exceeded control limits for the following analyte: 2.4-D. This analyte is biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. Data was flagged accordingly.

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

### Job ID: 280-37307-2 (Continued)

#### Laboratory: TestAmerica Denver (Continued)

The continuing calibration verification (CCV) for 2,4,5-T and Dinoseb associated with analytical batch 280-154361 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The MS and MSD spike recoveries for Dinoseb failed the recovery criteria low in batch 280-154361, performed on client sample SE-01 - (0-2) (280-37307-1). The associated LCS was in control and demonstrates that operating procedures were within control limits.

No other difficulties were encountered during the herbicides analyses.

### **TOTAL METALS - SOILS**

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for total metals in accordance with EPA SW-846 Method 6010B.

Sample SE-01 - (34-36) (280-37307-3)[5X] required dilution prior to analysis due to matrix interference. The reporting limits have been adjusted accordingly.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS provides evidence of batch precision and accuracy.

No other difficulties were encountered during the metals analyses.

#### **TOTAL METALS - WATER**

Sample SE-01 - GW (280-37307-4) was analyzed for total metals in accordance with EPA SW-846 Method 6010B.

Barium was detected in method blank MB 280-153751/1-A at a level exceeding the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the metals analysis.

### DISSOLVED METALS

Sample SE-01 - GW (280-37307-4) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B.

Selenium was detected in method blank MB 280-153635/1-A at a level exceeding the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No difficulties were encountered during the dissolved metals analysis.

#### **DISSOLVED MERCURY - WATER**

Sample SE-01 - GW (280-37307-4) was analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS provides evidence of batch precision and accuracy.

No difficulties were encountered during the dissolved mercury analysis.

### **TOTAL MERCURY - WATER**

Sample SE-01 - GW (280-37307-4) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A.

Mercury was detected in method blank MB 280-153532/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS provides evidence of batch precision and accuracy.

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Client: RMC Consultants Inc
Project/Site: US 6 at I-25

TestAmerica Job ID: 280-37307-2

Job ID: 280-37307-2 (Continued)

### **Laboratory: TestAmerica Denver (Continued)**

No other difficulties were encountered during the mercury analysis.

#### **TOTAL MERCURY - SOIL**

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS provides evidence of batch precision and accuracy.

No other difficulties were encountered during the mercury analyses.

### **OIL AND GREASE (HEM)**

Sample SE-01 - GW (280-37307-4) was analyzed for oil and grease (HEM) in accordance with EPA Method 1664A.

Matrix spike samples were not requested and they were not performed due to insufficient sample volume. The acceptable LCS/LCSD provides evidence of batch precision and accuracy.

No difficulties were encountered during the oil and grease analysis.

#### **PERCENT SOLIDS**

Samples SE-01 - (0-2) (280-37307-1), SE-01 - (24-26) (280-37307-2) and SE-01 - (34-36) (280-37307-3) were analyzed for percent solids in accordance with EPA SW846 3550C.

No difficulties were encountered during the % solids analyses.

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# **Definitions/Glossary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

### **Qualifiers**

### **GC/MS VOA**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **GC/MS Semi VOA**

an approximate value.

### GC Semi VOA

Qualifier

Abbreviation

**Qualifier Description** 

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
*	LCS or LCSD exceeds the control limits
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
Metals	

Glossary	
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

These commonly used abbreviations may or may not be present in this report.

<del>\</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Denver

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# **Detection Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

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Client Sample ID: SE-01 - (0-2)	Lab Sample ID: 280-37307-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.1	J B	20	5.5	ug/Kg		₽	8260B	Total/NA
Bromoform	0.30	JB	5.1	0.23	ug/Kg	1	₽	8260B	Total/NA
Arsenic	2200		1900	630	ug/Kg	1	₽	6010B	Total/NA
Barium	50000		960	73	ug/Kg	1	₽	6010B	Total/NA
Cadmium	100	J	480	39	ug/Kg	1	₽	6010B	Total/NA
Chromium	11000		1400	56	ug/Kg	1	₽	6010B	Total/NA
Lead	13000		770	260	ug/Kg	1	₽	6010B	Total/NA
Mercury	17		16	5.2	ug/Kg	1	₽	7471A	Total/NA

# Lab Sample ID: 280-37307-2

Lab Sample ID: 280-37307-3

Lab Sample ID: 280-37307-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	14	JB	24	6.4	ug/Kg	1	₩	8260B	Total/NA
Bromoform	0.27	JB	5.9	0.27	ug/Kg	1	₽	8260B	Total/NA
Arsenic	3100		2100	700	ug/Kg	1	₩	6010B	Total/NA
Barium	400000		1100	80	ug/Kg	1	₩	6010B	Total/NA
Cadmium	280	J	530	43	ug/Kg	1	₽	6010B	Total/NA
Chromium	13000		1600	61	ug/Kg	1	₩	6010B	Total/NA
Lead	11000		850	290	ug/Kg	1	₽	6010B	Total/NA
Selenium	950	J	1400	910	ug/Kg	1	₽	6010B	Total/NA
Mercury	17	J	19	6.1	ug/Kg	1	₩	7471A	Total/NA

### **Client Sample ID: SE-01 - (34-36)**

Client Sample ID: SE-01 - (24-26)

 Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	36		24	6.6	ug/Kg		₩	8260B	Total/NA
2-Butanone (MEK)	4.9	J	24	2.2	ug/Kg	1	₽	8260B	Total/NA
Carbon disulfide	1.3	J	6.1	0.51	ug/Kg	1	₽	8260B	Total/NA
Arsenic	5300	J	12000	3800	ug/Kg	5	₩	6010B	Total/NA
Barium	230000		5800	440	ug/Kg	5	₽	6010B	Total/NA
Cadmium	180	J	580	48	ug/Kg	1	₽	6010B	Total/NA
Chromium	17000		1700	67	ug/Kg	1	₩	6010B	Total/NA
Lead	12000		930	310	ug/Kg	1	₽	6010B	Total/NA
Mercury	11	J	27	8.8	ug/Kg	1	₩	7471A	Total/NA

# Client Sample ID: SE-01 - GW

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.53	J	1.0	0.16	ug/L		_	8260B	Total/NA
Barium	250	В	10	0.58	ug/L	1		6010B	Total/NA
Cadmium	0.99	J	5.0	0.45	ug/L	1		6010B	Total/NA
Chromium	7.9	J	10	0.66	ug/L	1		6010B	Total/NA
Lead	12		9.0	2.6	ug/L	1		6010B	Total/NA
Selenium	11	J	15	4.9	ug/L	1		6010B	Total/NA
Barium	170		10	0.58	ug/L	1		6010B	Dissolved
Cadmium	0.48	J	5.0	0.45	ug/L	1		6010B	Dissolved
Selenium	11	JB	15	4.9	ug/L	1		6010B	Dissolved
Mercury	0.057	JB	0.20	0.027	ug/L	1		7470A	Total/NA
HEM (Oil & Grease)	1.8		5.6	1.5	mg/L	1		1664A	Total/NA

# **Method Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL DEN
8081A	Organochlorine Pesticides (GC)	SW846	TAL DEN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
6010B	Metals (ICP)	SW846	TAL DEN
7470A	Mercury (CVAA)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
1664A	Oil & Grease (HEM)	EPA	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN
Local Method	General Sub Contract Method	NONE	EMLab-OC

#### **Protocol References:**

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EMLab-OC = EMLab P&K Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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# **Sample Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37307-1	SE-01 - (0-2)	Solid	12/20/12 20:20	12/21/12 14:12
280-37307-2	SE-01 - (24-26)	Solid	12/20/12 21:08	12/21/12 14:12
280-37307-3	SE-01 - (34-36)	Solid	12/20/12 21:25	12/21/12 14:12
280-37307-4	SE-01 - GW	Water	12/20/12 23:00	12/21/12 14:12

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# **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37307-2 Project/Site: US 6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SE-01 - (0-2) Lab Sample ID: 280-37307-1

9.1	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
	JB	20	5.5	ug/Kg	₽	12/26/12 16:00	12/27/12 00:37	
ND		20	1.9	ug/Kg	₩	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.48	ug/Kg	₽	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.55	ug/Kg	₽	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.43	ug/Kg	₽	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.64	ug/Kg	₩	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.41	ug/Kg	₽	12/26/12 16:00	12/27/12 00:37	
ND		10	0.61	ug/Kg	₩	12/26/12 16:00	12/27/12 00:37	
ND		10	0.51	ug/Kg	₩	12/26/12 16:00	12/27/12 00:37	
0.30	JB	5.1	0.23	ug/Kg		12/26/12 16:00	12/27/12 00:37	
ND		10	0.91	ug/Kg	₩	12/26/12 16:00	12/27/12 00:37	
ND		10	0.30	ug/Kg	₩	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.31	ug/Kg	\$	12/26/12 16:00	12/27/12 00:37	
ND		5.1	0.22		₽	12/26/12 16:00	12/27/12 00:37	
ND		5.1			₽	12/26/12 16:00	12/27/12 00:37	
ND		5.1			₽	12/26/12 16:00	12/27/12 00:37	
ND		20			₩	12/26/12 16:00	12/27/12 00:37	
ND		10	0.79		₩	12/26/12 16:00	12/27/12 00:37	
ND		10	0.53			12/26/12 16:00	12/27/12 00:37	
		2.6			₩	12/26/12 16:00		
					₽			
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ND		5.1				12/26/12 16:00	12/27/12 00:37	
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND       5.1         ND       5.1         ND       5.1         ND       10         ND       10         ND       10         ND       10         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       10         ND       10         ND       10         ND       10         ND       10         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND       5.1         ND	ND 5.1 0.43 ND 5.1 0.64 ND 5.1 0.64 ND 5.1 0.61 ND 10 0.61 ND 10 0.51  0.30 JB 5.1 0.23 ND 10 0.30 ND 10 0.30 ND 5.1 0.31 ND 5.1 0.58 ND 5.1 0.68 ND 5.1 0.60 ND 5.1 0.60 ND 10 0.79 ND 10 0.79 ND 10 0.53 ND 2.6 0.40 ND 5.1 1.6 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.68 ND 5.1 0.69 ND 5.1 0.64 ND 5.1 0.64 ND 5.1 0.64 ND 5.1 0.64 ND 5.1 0.77 ND 5.1 0.75 ND 5.1 0.75 ND 5.1 0.75 ND 5.1 0.75 ND 5.1 0.75 ND 5.1 0.75 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.75 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.70 ND 5.1 0.63 ND 5.1 0.64 ND 5.1 0.64 ND 5.1 0.60	ND 5.1 0.43 ug/Kg ND 5.1 0.64 ug/Kg ND 5.1 0.64 ug/Kg ND 5.1 0.61 ug/Kg ND 10 0.61 ug/Kg ND 10 0.51 ug/Kg ND 10 0.51 ug/Kg ND 10 0.51 ug/Kg ND 10 0.91 ug/Kg ND 10 0.91 ug/Kg ND 10 0.91 ug/Kg ND 10 0.90 ug/Kg ND 5.1 0.22 ug/Kg ND 5.1 0.56 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.68 ug/Kg ND 10 0.79 ug/Kg ND 10 0.79 ug/Kg ND 10 0.53 ug/Kg ND 10 0.53 ug/Kg ND 10 0.53 ug/Kg ND 10 0.53 ug/Kg ND 10 0.53 ug/Kg ND 10 0.54 ug/Kg ND 10 0.55 ug/Kg ND 10 0.56 ug/Kg ND 10 0.57 ug/Kg ND 10 0.58 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.68 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.69 ug/Kg ND 5.1 0.77 ug/Kg ND 5.1 0.70 ug/Kg ND 5.1 0.70 ug/Kg ND 5.1 0.23 ug/Kg ND 5.1 0.23 ug/Kg ND 5.1 0.23 ug/Kg ND 5.1 0.23 ug/Kg ND 5.1 0.23 ug/Kg ND 5.1 0.23 ug/Kg ND 5.1 0.49 ug/Kg ND 5.1 0.56 ug/Kg ND 5.1 0.49 ug/Kg ND 5.1 0.40 ug/Kg ND 5.1 0.50 ug/Kg ND 5.1 0.40 ug/Kg	ND	ND 5.1 0.43 ug/kg 12/26/12 16:00 ND 5.1 0.64 ug/kg 12/26/12 16:00 ND 5.1 0.61 ug/kg 12/26/12 16:00 ND 10 0.61 ug/kg 12/26/12 16:00 ND 10 0.61 ug/kg 12/26/12 16:00 ND 10 0.61 ug/kg 12/26/12 16:00 ND 10 0.61 ug/kg 12/26/12 16:00 O.30 JB 5.1 0.23 ug/kg 12/26/12 16:00 ND 10 0.91 ug/kg 12/26/12 16:00 ND 10 0.91 ug/kg 12/26/12 16:00 ND 10 0.91 ug/kg 12/26/12 16:00 ND 10 0.93 ug/kg 12/26/12 16:00 ND 5.1 0.31 ug/kg 12/26/12 16:00 ND 5.1 0.32 ug/kg 12/26/12 16:00 ND 5.1 0.80 ug/kg 12/26/12 16:00 ND 5.1 0.80 ug/kg 12/26/12 16:00 ND 5.1 0.80 ug/kg 12/26/12 16:00 ND 5.1 0.80 ug/kg 12/26/12 16:00 ND 5.1 0.80 ug/kg 12/26/12 16:00 ND 0.79 ug/kg 12/26/12 16:00 ND 0.79 ug/kg 12/26/12 16:00 ND 0.79 ug/kg 12/26/12 16:00 ND 0.79 ug/kg 12/26/12 16:00 ND 0.80 ug/kg 12/26/12 16:00 N	ND 5.1 0.43 ug/Kg

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Client Sample ID: SE-01 - (0-2) Date Collected: 12/20/12 20:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lah Sample ID: 280-37307-1	

**Matrix: Solid** 

Date Received: 12/21/12 14:12 Percent Solids: 95.8 MDL Unit Analyte Result Qualifier RLD Prepared Analyzed Dil Fac ₩ Ethylbenzene ND 5.1 0.68 ug/Kg 12/26/12 16:00 12/27/12 00:37 1,2-Dibromoethane ND 5.1 12/26/12 16:00 12/27/12 00:37 0.53 ug/Kg 12/26/12 16:00 Trichlorofluoromethane ND 10 1.1 ug/Kg 12/27/12 00:37

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	58 - 140	12/26/12 16:00	12/27/12 00:37	1
Toluene-d8 (Surr)	86	80 - 126	12/26/12 16:00	12/27/12 00:37	1
4-Bromofluorobenzene (Surr)	80	76 - 127	12/26/12 16:00	12/27/12 00:37	1
Dibromofluoromethane (Surr)	101	75 - 121	12/26/12 16:00	12/27/12 00:37	1

Client Sample ID: SE-01 - (24-26) Lab Sample ID: 280-37307-2

Date Collected: 12/20/12 21:08 Matrix: Solid

Date Received: 12/21/12 14:12 Analyte Acetone 2-Butanone (MEK)		Qualifier	RL	MDI		_		Percent Soli	ds: 82.2
Acetone 2-Butanone (MEK)		Qualifier	RL	MADI		-			
2-Butanone (MEK)	14				Unit	D	Prepared	Analyzed	Dil Fac
, ,		JB	24	6.4	ug/Kg	*	12/26/12 16:00	12/27/12 01:00	1
<b>5</b>	ND		24	2.2	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Benzene	ND		5.9	0.56	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Chlorobenzene	ND		5.9	0.64	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Carbon disulfide	ND		5.9	0.50	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Carbon tetrachloride	ND		5.9	0.75	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Cyclohexane	ND		5.9	0.47	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,2-Dibromo-3-Chloropropane	ND		12	0.71	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Bromomethane	ND		12	0.59	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Bromoform	0.27	JB	5.9	0.27	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
Chloroethane	ND		12	1.1	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Chloroform	ND		12	0.34	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Chlorobromomethane	ND		5.9	0.36	ug/Kg	₩.	12/26/12 16:00	12/27/12 01:00	1
Dichlorobromomethane	ND		5.9	0.26	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Chlorodibromomethane	ND		5.9	0.68	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Isopropylbenzene	ND		5.9	0.70	ug/Kg	\$	12/26/12 16:00	12/27/12 01:00	1
2-Hexanone	ND		24	5.8	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Chloromethane	ND		12	0.91	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Dichlorodifluoromethane	ND		12	0.62	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
trans-1,2-Dichloroethene	ND		3.0	0.46	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
trans-1,3-Dichloropropene	ND		5.9	0.79	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Methylene Chloride	ND		5.9	1.9	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
Methyl acetate	ND		12	3.3	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Methyl tert-butyl ether	ND		24	0.40	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		24	5.2	ug/Kg		12/26/12 16:00	12/27/12 01:00	1
Methylcyclohexane	ND		5.9	0.50	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Styrene	ND		5.9	0.75	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
1,1,2,2-Tetrachloroethane	ND		5.9	0.72	ug/Kg		12/26/12 16:00	12/27/12 01:00	1
1,2,3-Trichlorobenzene	ND		5.9	0.89	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
1,2,4-Trichlorobenzene	ND		5.9	0.86	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Toluene	ND		5.9	0.82	ug/Kg	ф.	12/26/12 16:00	12/27/12 01:00	1
1,1,1-Trichloroethane	ND		5.9	0.62	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
1,1,2-Trichloroethane	ND		5.9	1.0	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
Trichloroethene	ND		5.9	0.27	ug/Kg	φ.	12/26/12 16:00	12/27/12 01:00	1
1,1,2-Trichlorotrifluoroethane	ND		24		ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
Vinyl chloride	ND		5.9	1.6	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: US 6 at I-25

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

ect/Site: US 6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SE-01 - (24-26	5)					Lab S	Sample ID: 280-	37307-2
Date Collected: 12/20/12 21:08							Matri	x: Solid
Date Received: 12/21/12 14:12							Percent Soli	ds: 82.2
Analyte	Result Qualifier	r RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND ND	3.0	1.2	ug/Kg	<u> </u>	12/26/12 16:00	12/27/12 01:00	1
o-Xylene	ND	3.0	0.72	ug/Kg	\$	12/26/12 16:00	12/27/12 01:00	1
Tetrachloroethene	ND	5.9	0.70	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,2-Dichlorobenzene	ND	5.9	0.53	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,3-Dichlorobenzene	ND	5.9	0.57	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,4-Dichlorobenzene	ND	5.9	0.92	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
cis-1,2-Dichloroethene	ND	3.0	0.66	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
cis-1,3-Dichloropropene	ND	5.9	1.5	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,1-Dichloroethane	ND	5.9	0.25	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,1-Dichloroethene	ND	5.9	0.70	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,2-Dichloroethane	ND	5.9	0.83	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,2-Dichloropropane	ND	5.9	0.65	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,4-Dioxane	ND	590	66	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
Ethylbenzene	ND	5.9	0.79	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
1,2-Dibromoethane	ND	5.9	0.62	ug/Kg	₩	12/26/12 16:00	12/27/12 01:00	1
Trichlorofluoromethane	ND	12	1.2	ug/Kg	₽	12/26/12 16:00	12/27/12 01:00	1
Surrogate	%Recovery Qualifier	r Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	58 - 140				12/26/12 16:00	12/27/12 01:00	
Toluene-d8 (Surr)	89	80 - 126				12/26/12 16:00	12/27/12 01:00	1

76 - 127

75 - 121

Client Sample ID: SE-01 - (34-36)

Date Collected: 12/20/12 21:25

Date Received: 12/21/12 14:12

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Lab Sample ID: 280-37307-3 Matrix: Solid

12/27/12 01:00

12/26/12 16:00

12/26/12 16:00 12/27/12 01:00

Percent Solids: 75.6

Date Received: 12/21/12 14:12								Percent Soli	ds: 75.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	36		24	6.6	ug/Kg	<del>\</del>	12/27/12 06:00	12/27/12 15:55	1
2-Butanone (MEK)	4.9	J	24	2.2	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Benzene	ND		6.1	0.57	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Chlorobenzene	ND		6.1	0.66	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Carbon disulfide	1.3	J	6.1	0.51	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Carbon tetrachloride	ND		6.1	0.77	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Cyclohexane	ND		6.1	0.49	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
1,2-Dibromo-3-Chloropropane	ND		12	0.73	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Bromomethane	ND		12	0.61	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Bromoform	ND		6.1	0.28	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Chloroethane	ND		12	1.1	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Chloroform	ND		12	0.35	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Chlorobromomethane	ND		6.1	0.37	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Dichlorobromomethane	ND		6.1	0.27	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Chlorodibromomethane	ND		6.1	0.70	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Isopropylbenzene	ND		6.1	0.72	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
2-Hexanone	ND		24	6.0	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1
Chloromethane	ND		12	0.94	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Dichlorodifluoromethane	ND		12	0.64	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
trans-1,2-Dichloroethene	ND		3.1	0.48	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
trans-1,3-Dichloropropene	ND		6.1	0.82	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Methylene Chloride	ND		6.1	2.0	ug/Kg	₩	12/27/12 06:00	12/27/12 15:55	1
Methyl acetate	ND		12	3.4	ug/Kg	₽	12/27/12 06:00	12/27/12 15:55	1

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SE-01 - (34-36)	Lab Sample ID: 280-37307-3
Oato Collected: 12/20/12 21:25	Matrix: Solid

Date Collected: 12/20/12 21:25 Date Received: 12/21/12 14:12 Percent Solids: 75.6 RL MDL Unit D Prepared Analyte Result Qualifier Analyzed Dil Fac Methyl tert-butyl ether 24 0.42 12/27/12 06:00 12/27/12 15:55 ND ug/Kg 24 4-Methyl-2-pentanone (MIBK) ND 12/27/12 06:00 12/27/12 15:55 5.3 ug/Kg Ö Methylcyclohexane ND 6.1 0.51 ug/Kg 12/27/12 06:00 12/27/12 15:55 ND 0.77 ug/Kg 12/27/12 06:00 12/27/12 15:55 Styrene 6.1 ₩ 1,1,2,2-Tetrachloroethane ND 6.1 0.75 ug/Kg 12/27/12 06:00 12/27/12 15:55 ND 12/27/12 06:00 12/27/12 15:55 123-Trichlorobenzene 6 1 0.92 ug/Kg ₽ 1,2,4-Trichlorobenzene ND 6.1 0.89 ug/Kg 12/27/12 06:00 12/27/12 15:55 ND 6.1 12/27/12 06:00 12/27/12 15:55 Toluene 0.84 ug/Kg 1,1,1-Trichloroethane ND 6.1 0.64 ug/Kg 12/27/12 06:00 12/27/12 15:55 1,1,2-Trichloroethane ND 6.1 1.1 ug/Kg 12/27/12 06:00 12/27/12 15:55 ₩ ND Trichloroethene 6.1 0.28 ug/Kg 12/27/12 06:00 12/27/12 15:55 ND ₩ 12/27/12 06:00 1,1,2-Trichlorotrifluoroethane 24 0.55 ug/Kg 12/27/12 15:55 ₩ Vinyl chloride ND 6.1 1.6 ug/Kg 12/27/12 06:00 12/27/12 15:55 ₩ m-Xylene & p-Xylene ND 3.1 1.3 ug/Kg 12/27/12 06:00 12/27/12 15:55 o-Xylene ND 12/27/12 06:00 12/27/12 15:55 3 1 0.75 ug/Kg Ü Tetrachloroethene ND 6.1 0.72 ug/Kg 12/27/12 06:00 12/27/12 15:55 ND 12/27/12 06:00 12/27/12 15:55 1,2-Dichlorobenzene 6.1 0.55 ug/Kg 1,3-Dichlorobenzene ND 6.1 0.59 12/27/12 06:00 12/27/12 15:55 ug/Kg ND 12/27/12 06:00 12/27/12 15:55 1.4-Dichlorobenzene 6.1 0.95 ug/Kg ₩ cis-1,2-Dichloroethene ND 3.1 0.68 ug/Kg 12/27/12 06:00 12/27/12 15:55 cis-1,3-Dichloropropene ND 6.1 1.6 ug/Kg 12/27/12 06:00 12/27/12 15:55 ₩ ND 1,1-Dichloroethane 6.1 0.26 ug/Kg 12/27/12 06:00 12/27/12 15:55 1,1-Dichloroethene ND 6.1 0.72 ug/Kg 12/27/12 06:00 12/27/12 15:55 1,2-Dichloroethane ND 6.1 0.86 ug/Kg 12/27/12 06:00 12/27/12 15:55 1,2-Dichloropropane ND 6.1 0.67 ug/Kg 12/27/12 06:00 12/27/12 15:55 610 1,4-Dioxane ND 12/27/12 06:00 12/27/12 15:55 69 ug/Kg Ethylbenzene ND 6.1 12/27/12 06:00 12/27/12 15:55 0.82 ug/Kg 1,2-Dibromoethane ND 6.1 0.64 ug/Kg 12/27/12 06:00 12/27/12 15:55 ₽ Trichlorofluoromethane ND 12 12/27/12 06:00 12/27/12 15:55 1.3 ug/Kg Analyzed Surrogate %Recovery Qualifier Limits Prepared Dil Fac 1,2-Dichloroethane-d4 (Surr) 99 58 - 140 12/27/12 06:00 12/27/12 15:55

<b></b>			
Dibromofluoromethane (Surr)	93	75 - 121	12/27/12 06:00 12/27/12 15:55 1
4-Bromofluorobenzene (Surr)	111	76 - 127	12/27/12 06:00 12/27/12 15:55 1
Toluene-d8 (Surr)	111	80 - 126	12/27/12 06:00 12/27/12 15:55 1

Client Sample ID: SE-01 - GW
Date Collected: 12/20/12 23:00
Date Received: 12/21/12 14:12
Lab Sample ID: 280-37307-4
Matrix: Water

Date Recorded 12/21/12 1 11/2									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			12/28/12 15:07	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			12/28/12 15:07	1
Benzene	ND		1.0	0.16	ug/L			12/28/12 15:07	1
Chlorobenzene	ND		1.0	0.17	ug/L			12/28/12 15:07	1
Carbon disulfide	ND		2.0	0.45	ug/L			12/28/12 15:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			12/28/12 15:07	1
Cyclohexane	ND		2.0	0.28	ug/L			12/28/12 15:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			12/28/12 15:07	1
Bromomethane	ND		2.0	0.21	ug/L			12/28/12 15:07	1
Bromoform	ND		1.0	0.19	ug/L			12/28/12 15:07	1

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1/8/2013

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Client Sample ID: SE-01 - GW

Date Collected: 12/20/12 23:00

Surrogate

Toluene-d8 (Surr)

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37307-4

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		2.0	0.41	ug/L			12/28/12 15:07	1
Chloroform	0.53	J	1.0	0.16	ug/L			12/28/12 15:07	1
Chlorobromomethane	ND		1.0	0.10	ug/L			12/28/12 15:07	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			12/28/12 15:07	1
Chlorodibromomethane	ND		1.0	0.17	ug/L			12/28/12 15:07	1
Isopropylbenzene	ND		1.0	0.19	ug/L			12/28/12 15:07	1
2-Hexanone	ND		5.0	1.7	ug/L			12/28/12 15:07	1
Chloromethane	ND		2.0	0.30	ug/L			12/28/12 15:07	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			12/28/12 15:07	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			12/28/12 15:07	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			12/28/12 15:07	1
Methylene Chloride	ND		2.0	0.32	ug/L			12/28/12 15:07	1
Methyl acetate	ND		5.0	1.6	ug/L			12/28/12 15:07	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			12/28/12 15:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			12/28/12 15:07	1
Methylcyclohexane	ND		1.0	0.36	ug/L			12/28/12 15:07	1
Styrene	ND		1.0	0.17	ug/L			12/28/12 15:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/28/12 15:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			12/28/12 15:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			12/28/12 15:07	1
Toluene	ND		1.0	0.17	ug/L			12/28/12 15:07	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			12/28/12 15:07	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			12/28/12 15:07	1
Trichloroethene	ND		1.0	0.16	ug/L			12/28/12 15:07	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			12/28/12 15:07	1
Vinyl chloride	ND		1.0	0.10	ug/L			12/28/12 15:07	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			12/28/12 15:07	1
o-Xylene	ND		1.0	0.19	ug/L			12/28/12 15:07	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/28/12 15:07	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			12/28/12 15:07	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/28/12 15:07	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			12/28/12 15:07	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			12/28/12 15:07	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			12/28/12 15:07	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			12/28/12 15:07	1
1,1-Dichloroethene	ND		1.0		ug/L			12/28/12 15:07	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			12/28/12 15:07	1
1,2-Dichloropropane	ND		1.0		ug/L			12/28/12 15:07	1
1,4-Dioxane	ND		200		ug/L			12/28/12 15:07	1
Ethylbenzene	ND		1.0		ug/L			12/28/12 15:07	1
1,2-Dibromoethane	ND		1.0		ug/L			12/28/12 15:07	1
Trichlorofluoromethane	ND		2.0		ug/L			12/28/12 15:07	1

TestAmerica Denver

Analyzed

12/28/12 15:07

12/28/12 15:07

12/28/12 15:07

12/28/12 15:07

Prepared

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Limits

70 - 127

80 - 125

78 - 120

77 - 120

%Recovery Qualifier

97

92

89

106

Dil Fac

### **Client Sample Results**

Client: RMC Consultants Inc
Project/Site: US 6 at I-25

TestAmerica Job ID: 280-37307-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

Client Sample ID: SE-01 - GW

Date Collected: 12/20/12 23:00

4-Nitroaniline

4-Nitrophenol

Acenaphthene

Acetophenone

Benzaldehyde

Benzo[a]pyrene

Benzo[b]fluoranthene

Benzo[g,h,i]perylene

Benzo[k]fluoranthene

Benzo[a]anthracene

Bis(2-chloroethyl)ether

Butyl benzyl phthalate

Caprolactam

Carbazole

Bis(2-chloroethoxy)methane

Bis(2-ethylhexyl) phthalate

Anthracene

Atrazine

Acenaphthylene

Lab Sample ID: 280-37307-4

**Matrix: Water** 

Date Received: 12/21/12 14:12 Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl		9.5	1.7	ug/L		12/26/12 12:25	12/31/12 21:43	1
1,2,4,5-Tetrachlorobenzene	ND	9.5	1.6	ug/L		12/26/12 12:25	12/31/12 21:43	1
1,2,4-Trichlorobenzene	ND	3.8		ug/L		12/26/12 12:25	12/31/12 21:43	1
1,2-Dichlorobenzene	ND	3.8		ug/L		12/26/12 12:25	12/31/12 21:43	1
1,3-Dichlorobenzene	ND	9.5		ug/L		12/26/12 12:25	12/31/12 21:43	1
1,4-Dichlorobenzene	ND	3.8		ug/L		12/26/12 12:25	12/31/12 21:43	1
1,4-Dioxane	ND	19		ug/L		12/26/12 12:25	12/31/12 21:43	1
2,4,6-Trichlorophenol	ND	9.5	0.27	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,4-Dichlorophenol	ND	9.5	0.61	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,2'-oxybis[1-chloropropane]	ND	9.5	0.27	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,3,4,6-Tetrachlorophenol	ND	47	1.9	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,4,5-Trichlorophenol	ND	9.5	0.43	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,4-Dimethylphenol	ND	9.5	0.55	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,4-Dinitrophenol	ND	28	9.5	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,4-Dinitrotoluene	ND	9.5	1.6	ug/L		12/26/12 12:25	12/31/12 21:43	1
2,6-Dinitrotoluene	ND	9.5	1.8	ug/L		12/26/12 12:25	12/31/12 21:43	1
2-Chloronaphthalene	ND	3.8		ug/L		12/26/12 12:25	12/31/12 21:43	1
2-Chlorophenol	ND	9.5	1.9	ug/L		12/26/12 12:25	12/31/12 21:43	1
2-Methylnaphthalene	ND	3.8	0.27	ug/L		12/26/12 12:25	12/31/12 21:43	1
2-Methylphenol	ND	9.5	0.93	ug/L		12/26/12 12:25	12/31/12 21:43	1
3 & 4 Methylphenol	ND	9.5	0.24	ug/L		12/26/12 12:25	12/31/12 21:43	1
2-Nitroaniline	ND	9.5	1.6	ug/L		12/26/12 12:25	12/31/12 21:43	1
2-Nitrophenol	ND	9.5	0.37	ug/L		12/26/12 12:25	12/31/12 21:43	1
3,3'-Dichlorobenzidine	ND	47	1.9	ug/L		12/26/12 12:25	12/31/12 21:43	1
3-Nitroaniline	ND	9.5	1.9	ug/L		12/26/12 12:25	12/31/12 21:43	1
4,6-Dinitro-2-methylphenol	ND	47	3.8	ug/L		12/26/12 12:25	12/31/12 21:43	1
4-Bromophenyl phenyl ether	ND	9.5	0.41	ug/L		12/26/12 12:25	12/31/12 21:43	1
4-Chloro-3-methylphenol	ND	9.5	2.3	ug/L		12/26/12 12:25	12/31/12 21:43	1
4-Chloroaniline	ND	9.5	2.0	ug/L		12/26/12 12:25	12/31/12 21:43	1
4-Chlorophenyl phenyl ether	ND	9.5	1.6	ug/L		12/26/12 12:25	12/31/12 21:43	1

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1.2 ug/L

0.46 ug/L

0.40 ug/L

0.69 ug/L

1.9 ug/L

0.29 ug/L

0.50 ug/L

0.47 ug/L

0.44 ug/L

0.92 ug/L

0.39 ug/L

0.53 ug/L

0.95 ug/L

4.7 ug/L

0.41 ug/L

0.33 ug/L

0.27 ug/L

0.23 ug/L

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TestAmerica Denver

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Client Sample ID: SE-01 - GW

Date Collected: 12/20/12 23:00

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37307-4

**Matrix: Water** 

Date Received: 12/21/12 14:12 Dil Fac RL MDL Unit D Prepared Analyte Result Qualifier Analyzed Chrysene ND 3.8 0.51 12/26/12 12:25 12/31/12 21:43 ug/L 12/26/12 12:25 Dibenz(a,h)anthracene ND 3.8 12/31/12 21:43 0.48 ug/L Di-n-butyl phthalate ND 3.8 1.1 ug/L 12/26/12 12:25 12/31/12 21:43 Di-n-octyl phthalate ND 3.8 12/26/12 12:25 12/31/12 21:43 0.33 ug/L Dibenzofuran ND 3.8 0.27 ug/L 12/26/12 12:25 12/31/12 21:43 Diethyl phthalate ND 3.8 0.36 ug/L 12/26/12 12:25 12/31/12 21:43 Dimethyl phthalate ND 3.8 0.20 ug/L 12/26/12 12:25 12/31/12 21:43 Fluoranthene ND 3.8 12/26/12 12:25 12/31/12 21:43 0.19 ug/L ND Fluorene 3.8 0.29 ug/L 12/26/12 12:25 12/31/12 21:43 Hexachlorobenzene ND 9.5 0.63 ug/L 12/26/12 12:25 12/31/12 21:43 ND Hexachlorobutadiene 9.5 3.1 ug/L 12/26/12 12:25 12/31/12 21:43 ND 47 12/26/12 12:25 12/31/12 21:43 Hexachlorocyclopentadiene 9.5 ug/L Hexachloroethane ND 9.5 2.0 ug/L 12/26/12 12:25 12/31/12 21:43 Indeno[1,2,3-cd]pyrene ND 3.8 0.62 ug/L 12/26/12 12:25 12/31/12 21:43 ND 9.5 Isophorone 0.20 ug/L 12/26/12 12:25 12/31/12 21:43 N-Nitrosodi-n-propylamine ND 9.5 0.33 ug/L 12/26/12 12:25 12/31/12 21:43 ND 9.5 0.42 ug/L 12/26/12 12:25 12/31/12 21:43 n-Nitrosodiphenylamine(as diphenylamine) ND 12/26/12 12:25 Naphthalene 3.8 0.27 ug/L 12/31/12 21:43 ND 9.5 Nitrobenzene 0.77 ug/L 12/26/12 12:25 12/31/12 21:43 Pentachlorophenol 47 12/26/12 12:25 ND 19 ug/L 12/31/12 21:43 Phenanthrene ND 3.8 12/26/12 12:25 12/31/12 21:43 0.25 ug/L Phenol ND 9.5 1.9 ug/L 12/26/12 12:25 12/31/12 21:43 Pyrene ND 12/26/12 12:25 12/31/12 21:43 9.5 0.35 ug/L

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	74	51 - 120	12/26/12 12:25	12/31/12 21:43	1
Phenol-d5	78	51 - 120	12/26/12 12:25	12/31/12 21:43	1
2,4,6-Tribromophenol	100	57 - 120	12/26/12 12:25	12/31/12 21:43	1
2-Fluorobiphenyl	75	38 - 120	12/26/12 12:25	12/31/12 21:43	1
Nitrobenzene-d5	77	48 - 120	12/26/12 12:25	12/31/12 21:43	1
Terphenyl-d14	85	50 - 120	12/26/12 12:25	12/31/12 21:43	1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: SE-01 - (0-2) Lab Sample ID: 280-37307-1 Date Collected: 12/20/12 20:20 **Matrix: Solid** 

Date Received: 12/21/12 14:12 Percent Solids: 95.8

Dato 110001104: 12/21/12 14:1	_						i crociit con	ao. 00.0
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND ND	8.8	2.8	ug/Kg	\$	12/24/12 11:15	12/31/12 15:05	5
4,4'-DDE	ND	8.8	1.2	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
4,4'-DDT	ND	8.8	3.0	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Aldrin	ND	8.8	1.3	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
alpha-BHC	ND	8.8	1.1	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
beta-BHC	ND	8.8	3.4	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Chlordane (n.o.s.)	ND	8.8	1.1	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
delta-BHC	ND	8.8	2.1	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Dieldrin	ND	8.8	1.1	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Endosulfan I	ND	8.8	0.91	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Endosulfan II	ND	8.8	1.5	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5

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12/24/12 11:15 12/31/12 15:05

01/03/13 20:35 01/04/13 17:51

Client: RMC Consultants Inc

Project/Site: US 6 at I-25

Tetrachloro-m-xylene

DCB Decachlorobiphenyl

Tetrachloro-m-xylene

# Method: 8081A - Organochlorine Pesticides (GC) (Continued)

84 D

88

88

Client Sample ID: SE-01 - (0-2)							Lab S	Sample ID: 280-	37307-1
Date Collected: 12/20/12 20:20								Matri	x: Solid
Date Received: 12/21/12 14:12								Percent Soli	ds: 95.8
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	ND		8.8	1.4	ug/Kg	₩	12/24/12 11:15	12/31/12 15:05	5
Endrin	ND		8.8	1.6	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Endrin aldehyde	ND		8.8	0.88	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
gamma-BHC (Lindane)	ND		8.8	2.4	ug/Kg	≎	12/24/12 11:15	12/31/12 15:05	5
Heptachlor	ND		8.8	1.1	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Heptachlor epoxide	ND		8.8	2.2	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Methoxychlor	ND		17	2.3	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Toxaphene	ND		350	82	ug/Kg	₽	12/24/12 11:15	12/31/12 15:05	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenvl	81	D	63 - 124				12/24/12 11:15	12/31/12 15:05	5

59 - 115

Client Sample ID: SE-01 - (2 Date Collected: 12/20/12 21	•					Lab \$	Sample ID: 280- Matri	-37307-2 ix: Solid
Date Received: 12/21/12 14:							Percent Soli	
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND ND	2.0	0.63	ug/Kg	<u> </u>	01/03/13 20:35	01/04/13 17:51	1
4,4'-DDE	ND	2.0	0.27	ug/Kg	₽	01/03/13 20:35	01/04/13 17:51	1
4,4'-DDT	ND	2.0	0.68	ug/Kg	₽	01/03/13 20:35	01/04/13 17:51	1
Aldrin	ND	2.0	0.29	ug/Kg		01/03/13 20:35	01/04/13 17:51	1
alpha-BHC	ND	2.0	0.25	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
beta-BHC	ND	2.0	0.76	ug/Kg	₽	01/03/13 20:35	01/04/13 17:51	1
Chlordane (n.o.s.)	ND	2.0	0.25	ug/Kg		01/03/13 20:35	01/04/13 17:51	1
delta-BHC	ND	2.0	0.46	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Dieldrin	ND	2.0	0.24	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Endosulfan I	ND	2.0	0.20	ug/Kg		01/03/13 20:35	01/04/13 17:51	1
Endosulfan II	ND	2.0	0.33	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Endosulfan sulfate	ND	2.0	0.32	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Endrin	ND	2.0	0.35	ug/Kg		01/03/13 20:35	01/04/13 17:51	1
Endrin aldehyde	ND	2.0	0.20	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
gamma-BHC (Lindane)	ND	2.0	0.53	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Heptachlor	ND	2.0	0.25	ug/Kg		01/03/13 20:35	01/04/13 17:51	1
Heptachlor epoxide	ND	2.0	0.49	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Methoxychlor	ND	3.8	0.52	ug/Kg	₩	01/03/13 20:35	01/04/13 17:51	1
Toxaphene	ND	77	18	ug/Kg		01/03/13 20:35	01/04/13 17:51	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac

Client Sample ID: SE-01 - (	34-36)					Lab S	Sample ID: 280-	37307-3
Date Collected: 12/20/12 21	1:25						Matri	x: Solid
Date Received: 12/21/12 14	l:12						Percent Soli	ds: 75.6
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND ND	11	3.4	ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
4,4'-DDE	ND	11	1.5	ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5
4,4'-DDT	ND	11	3.7	ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5
Aldrin	ND	11	1.6	ug/Kg	\$	12/24/12 11:15	12/31/12 16:15	5
alpha-BHC	ND	11	1.3	ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SE-01 - (34-36) Date Collected: 12/20/12 21:25							Lab S		x: Solid
Date Received: 12/21/12 14:12 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Percent Soli  Analyzed	Dil Fac
beta-BHC	ND		11	4.2	ug/Kg	<u></u>	12/24/12 11:15	12/31/12 16:15	5
Chlordane (n.o.s.)	ND		11	1.3	ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5
delta-BHC	ND		11	2.5	ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Dieldrin	ND		11	1.3	ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5
Endosulfan I	ND		11	1.1	ug/Kg	*	12/24/12 11:15	12/31/12 16:15	5

Chilordane (11.0.5.)	ND	11	1.5 ug/Ng	~	12/24/12 11.13	12/31/12 10.13	5
delta-BHC	ND	11	2.5 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Dieldrin	ND	11	1.3 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Endosulfan I	ND	11	1.1 ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5
Endosulfan II	ND	11	1.8 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Endosulfan sulfate	ND	11	1.7 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Endrin	ND	11	1.9 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Endrin aldehyde	ND	11	1.1 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
gamma-BHC (Lindane)	ND	11	2.9 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Heptachlor	ND	11	1.3 ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5
Heptachlor epoxide	ND	11	2.7 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Methoxychlor	ND	21	2.8 ug/Kg	₩	12/24/12 11:15	12/31/12 16:15	5
Toxaphene	ND	420	100 ug/Kg	₽	12/24/12 11:15	12/31/12 16:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	43	D	63 - 124	12/24/12 11:15	12/31/12 16:15	5
Tetrachloro-m-xylene	56	D	59 - 115	12/24/12 11:15	12/31/12 16:15	5

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-01 - (0-2) Lab Sample ID: 280-37307-1 Date Collected: 12/20/12 20:20 **Matrix: Solid** 

Date Received: 12/21/12 14:12						Percent Soli	ds: 95.8	
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND ND	34	5.3	ug/Kg	₩	12/24/12 11:15	01/02/13 17:35	1
PCB-1221	ND	49	16	ug/Kg	₽	12/24/12 11:15	01/02/13 17:35	1
PCB-1232	ND	34	5.3	ug/Kg	₽	12/24/12 11:15	01/02/13 17:35	1
PCB-1242	ND	34	9.4	ug/Kg	φ.	12/24/12 11:15	01/02/13 17:35	1
PCB-1248	ND	34	5.8	ug/Kg	₽	12/24/12 11:15	01/02/13 17:35	1
PCB-1254	ND	34	5.7	ug/Kg	₽	12/24/12 11:15	01/02/13 17:35	1
PCB-1260	ND	34	2.7	ug/Kg		12/24/12 11:15	01/02/13 17:35	1
PCB-1262	ND	34	12	ug/Kg	₽	12/24/12 11:15	01/02/13 17:35	1
PCB-1268	ND	34	4.1	ug/Kg	₽	12/24/12 11:15	01/02/13 17:35	1
Polychlorinated biphenyls, Total	ND	34	2.7	ug/Kg		12/24/12 11:15	01/02/13 17:35	1

Surrogate	%Recovery Qualifie	er Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	46 X	59 - 130	12/24/12 11:15	01/02/13 17:35	1
Tetrachloro-m-xylene	87	53 - 128	12/24/12 11:15	01/02/13 17:35	1

Client Sample ID: SE-01 - (24-26) Lab Sample ID: 280-37307-2 Date Collected: 12/20/12 21:08

Date Received: 12/21/12 14:12								Percent Soli	ds: 82.2
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		38	5.8	ug/Kg	<u></u>	01/03/13 20:35	01/07/13 17:30	1
PCB-1221	ND		54	18	ug/Kg	₩	01/03/13 20:35	01/07/13 17:30	1
PCB-1232	ND		38	5.9	ug/Kg	₩	01/03/13 20:35	01/07/13 17:30	1
PCB-1242	ND		38	10	ug/Kg	₽	01/03/13 20:35	01/07/13 17:30	1
PCB-1248	ND		38	6.4	ug/Kg	₩	01/03/13 20:35	01/07/13 17:30	1
PCB-1254	ND		38	6.3	ug/Kg	₽	01/03/13 20:35	01/07/13 17:30	1

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**Matrix: Solid** 

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SE-01 - (24-26)	Lab Sample ID: 280-37307-2
Date Collected: 12/20/12 21:08	Matrix: Solid
Date Received: 12/21/12 14:12	Percent Solids: 82.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	ND		38	3.0	ug/Kg	*	01/03/13 20:35	01/07/13 17:30	1
PCB-1262	ND		38	13	ug/Kg	\$	01/03/13 20:35	01/07/13 17:30	1
PCB-1268	ND		38	4.5	ug/Kg	₽	01/03/13 20:35	01/07/13 17:30	1
Polychlorinated biphenyls, Total	ND		38	3.0	ug/Kg	\$	01/03/13 20:35	01/07/13 17:30	1

Surrogate	%Recovery Qual	lifier Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80	59 - 130	01/03/13 20:35	01/07/13 17:30	1
Tetrachloro-m-xylene	85	53 - 128	01/03/13 20:35	01/07/13 17:30	1

Client Sample ID: SE-01 - (34-36) Lab Sample ID: 280-37307-3 Date Collected: 12/20/12 21:25 **Matrix: Solid** Percent Solids: 75.6 Date Received: 12/21/12 14:12

Date Neceiveu. 12/21/12 14.12								reiteilt Johas. 75.0		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
PCB-1016	ND		42	6.4	ug/Kg	\$	12/24/12 11:15	01/02/13 19:00	1	
PCB-1221	ND		59	20	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
PCB-1232	ND		42	6.5	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
PCB-1242	ND		42	11	ug/Kg	\$	12/24/12 11:15	01/02/13 19:00	1	
PCB-1248	ND		42	7.1	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
PCB-1254	ND		42	7.0	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
PCB-1260	ND		42	3.3	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
PCB-1262	ND		42	15	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
PCB-1268	ND		42	5.0	ug/Kg	₽	12/24/12 11:15	01/02/13 19:00	1	
Polychlorinated biphenyls, Total	ND		42	3.3	ug/Kg	₩	12/24/12 11:15	01/02/13 19:00	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	33	X	59 - 130	12/24/12 11:15	01/02/13 19:00	1
Tetrachloro-m-xylene	63		53 - 128	12/24/12 11:15	01/02/13 19:00	1

### Method: 8151A - Herbicides (GC)

Date Collected: 12/20/12 21:08

Client Sample ID: SE-01 - (0-2) Lab Sample ID: 280-37307-1 Date Collected: 12/20/12 20:20 **Matrix: Solid** Date Received: 12/21/12 14:12 Percent Solids: 95.8

Date Neceived. 12/21/12 14.12								i ercent oon	us. 33.0
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	*	410	71	ug/Kg	*	12/27/12 08:40	01/02/13 22:31	5
Dinoseb	ND		61	7.1	ug/Kg	₽	12/27/12 08:40	01/02/13 22:31	5
2,4,5-T	ND		100	12	ug/Kg	₽	12/27/12 08:40	01/02/13 22:31	5
Silvex (2,4,5-TP)	ND		100	7.1	ug/Kg	\$	12/27/12 08:40	01/02/13 22:31	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	47	D	31 - 105	12/27/12 08:40	01/02/13 22:31	5

Client Sample ID: SE-01 - (24-26) Lab Sample ID: 280-37307-2

Date Received: 12/21/12 14:12								Percent Soli	ds: 82.2
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND *		96	17	ug/Kg	<del>\$</del>	12/27/12 08:40	01/02/13 23:38	1
Dinoseb	ND		14	1.7	ug/Kg	₽	12/27/12 08:40	01/02/13 23:38	1
2,4,5-T	ND		24	2.7	ug/Kg	₽	12/27/12 08:40	01/02/13 23:38	1
Silvex (2,4,5-TP)	ND		24	1.7	ug/Kg		12/27/12 08:40	01/02/13 23:38	1

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**Matrix: Solid** 

# **Client Sample Results**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

2

3

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6

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11

13

14

Method: 8151A - Herbicides	(GC)	(Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	82	-	31 - 105				12/27/12 08:40	01/02/13 23:38	1
- Client Sample ID: SE-01 - (34-36)							Lab S	Sample ID: 280-	37307-3
Date Collected: 12/20/12 21:25								Matri	x: Solid
Date Received: 12/21/12 14:12								Percent Soli	ds: 75.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	*	100	18	ug/Kg	<del>\</del>	12/27/12 08:40	01/03/13 00:01	1
Dinoseb	ND		15	1.8	ug/Kg	₩	12/27/12 08:40	01/03/13 00:01	1
2,4,5-T	ND		25	2.9	ug/Kg	₩	12/27/12 08:40	01/03/13 00:01	1
Silvex (2,4,5-TP)	ND		25	1.8	ug/Kg	\$	12/27/12 08:40	01/03/13 00:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	92		31 - 105				12/27/12 08:40	01/03/13 00:01	1

Method: 6010B - Metals (ICP)

Client Sample ID: SE-01 - (0-2)							Lab Sample ID: 280-37307-1				
Date Collected: 12/20/12 20:20								Matri	x: Solid		
Date Received: 12/21/12 14:12								Percent Soli	ds: 95.8		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	2200		1900	630	ug/Kg	₽	12/28/12 07:30	12/31/12 15:02	1		
Barium	50000		960	73	ug/Kg	₽	12/28/12 07:30	12/28/12 19:22	1		
Cadmium	100	J	480	39	ug/Kg	₽	12/28/12 07:30	12/28/12 19:22	1		
Chromium	11000		1400	56	ug/Kg	₽	12/28/12 07:30	12/28/12 19:22	1		
Lead	13000		770	260	ug/Kg	₽	12/28/12 07:30	12/28/12 19:22	1		
Selenium	ND		1200	820	ug/Kg	₽	12/28/12 07:30	12/28/12 19:22	1		
Silver	ND		960	150	ua/Ka		12/28/12 07:30	12/28/12 19:22	1		

Client Sample ID: SE-01 - (24-26) Lab Sample ID: 280-37307-2 Date Collected: 12/20/12 21:08 **Matrix: Solid** Date Received: 12/21/12 14:12 Percent Solids: 82.2 Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac Arsenic 3100 2100 700 ug/Kg ₩ 12/28/12 07:30 12/31/12 15:04 12/28/12 07:30 400000 1100 80 ug/Kg 12/28/12 19:25 **Barium** Cadmium 280 J 530 43 ug/Kg 12/28/12 07:30 12/28/12 19:25 1600 12/28/12 07:30 12/28/12 19:25 61 ug/Kg Chromium 13000 ₩ Lead 11000 850 290 ug/Kg 12/28/12 07:30 12/28/12 19:25 1400 910 ug/Kg 12/28/12 07:30 12/28/12 19:25 Selenium 950 J Silver ND 1100 170 ug/Kg 12/28/12 07:30 12/28/12 19:25

Client Sample ID: SE-01 - (34-3) Date Collected: 12/20/12 21:25	6)						Lab Sample ID: 280-37 Matrix:				
Date Received: 12/21/12 14:12								Percent Soli			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	5300	J	12000	3800	ug/Kg	<del>\</del>	12/28/12 07:30	12/31/12 15:07	5		
Barium	230000		5800	440	ug/Kg	₽	12/28/12 07:30	12/31/12 15:07	5		
Cadmium	180	J	580	48	ug/Kg	₽	12/28/12 07:30	12/28/12 19:28	1		
Chromium	17000		1700	67	ug/Kg	₽	12/28/12 07:30	12/28/12 19:28	1		
Lead	12000		930	310	ug/Kg	₽	12/28/12 07:30	12/28/12 19:28	1		
Selenium	ND		1500	1000	ug/Kg	₩	12/28/12 07:30	12/28/12 19:28	1		
Silver	ND		1200	190	ug/Kg	₽	12/28/12 07:30	12/28/12 19:28	1		

Client: RMC Consultants Inc TestAmerica Job ID: 280-37307-2

Project/Site: US 6 at I-25

Method: 6010B - Metals (ICP)

Client Sample ID: SE-01 - GW Lab Sample ID: 280-37307-4

Date Collected: 12/20/12 23:00 **Matrix: Water** 

Date Received: 12/21/12 14:12 RL MDL Unit D Prepared Dil Fac Analyte Result Qualifier Analyzed Arsenic ND 15 4.4 12/27/12 07:30 12/28/12 03:56 ug/L 10 ug/L 12/27/12 07:30 12/28/12 03:56 **Barium** 250 B 0.58 Cadmium 0.99 J 5.0 0.45 ug/L 12/27/12 07:30 12/28/12 03:56 10 0.66 ug/L 12/27/12 07:30 12/28/12 03:56 Chromium 7.9 9.0 2.6 ug/L 12/27/12 07:30 12/28/12 03:56 Lead 12 15 12/27/12 07:30 12/28/12 03:56 Selenium 49 ug/L 11 Silver ND 10 0.93 ug/L 12/27/12 07:30 12/28/12 03:56

Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: SE-01 - GW Lab Sample ID: 280-37307-4

Date Collected: 12/20/12 23:00 **Matrix: Water** 

Date Received: 12/21/12 14:12 Analyte Result Qualifier **MDL** Unit Prepared Dil Fac RL Analyzed Arsenic ND 4.4 ug/L 12/28/12 12:00 12/31/12 20:36 15 **Barium** 170 10 0.58 ug/L 12/28/12 12:00 12/31/12 20:36 0.48 5.0 0.45 ug/L 12/28/12 12:00 12/31/12 20:36 Cadmium Chromium ND 10 0.66 ug/L 12/28/12 12:00 12/31/12 20:36 Lead ND 9.0 2.6 ug/L 12/28/12 12:00 12/31/12 20:36 15 Selenium 11 4.9 ug/L 12/28/12 12:00 12/31/12 20:36 10 Silver ND 0.93 ug/L 12/28/12 12:00 12/31/12 20:36

Method: 7470A - Mercury (CVAA)

Client Sample ID: SE-01 - GW Lab Sample ID: 280-37307-4

Date Collected: 12/20/12 23:00 Date Received: 12/21/12 14:12

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Mercury 0.057 JB 0.20 0.027 ug/L 12/27/12 12:00 12/27/12 18:22

Method: 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: SE-01 - GW Lab Sample ID: 280-37307-4

Date Collected: 12/20/12 23:00

Date Received: 12/21/12 14:12

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.20 Mercury ND 0.027 ug/L 12/28/12 11:15 12/28/12 15:26

Method: 7471A - Mercury (CVAA)

Client Sample ID: SE-01 - (0-2) Lab Sample ID: 280-37307-1 Date Collected: 12/20/12 20:20 **Matrix: Solid** 

Date Received: 12/21/12 14:12 Percent Solids: 95.8

Analyte RL MDL Unit D Dil Fac Result Qualifier Prepared Analyzed 16 Mercury 17 5.2 ug/Kg 12/26/12 11:35 12/26/12 15:34

Client Sample ID: SE-01 - (24-26) Lab Sample ID: 280-37307-2

Date Collected: 12/20/12 21:08 **Matrix: Solid** 

Date Received: 12/21/12 14:12 Percent Solids: 82.2 Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac

Analyte 19 12/26/12 11:35 12/26/12 15:36 17 Mercury J 6.1 ug/Kg

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**Matrix: Water** 

**Matrix: Water** 

# Client Sample Results

Client: RMC Consultants Inc TestAmerica Job ID: 280-37307-2 Project/Site: US 6 at I-25 Method: 7471A - Mercury (CVAA) Client Sample ID: SE-01 - (34-36) Lab Sample ID: 280-37307-3 Date Collected: 12/20/12 21:25 **Matrix: Solid** Date Received: 12/21/12 14:12 Percent Solids: 75.6 Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared ₩ 27 8.8 ug/Kg 12/26/12 11:35 12/26/12 15:38 Mercury 11 J **General Chemistry** Client Sample ID: SE-01 - (0-2) Lab Sample ID: 280-37307-1 Date Collected: 12/20/12 20:20 **Matrix: Solid** Date Received: 12/21/12 14:12 Result Qualifier Analyte RL RL Unit D Prepared Analyzed Dil Fac 0.10 0.10 % 4.2 12/26/12 10:50 **Percent Moisture Percent Solids** 0.10 0.10 12/26/12 10:50 96 Client Sample ID: SE-01 - (24-26) Lab Sample ID: 280-37307-2 Date Collected: 12/20/12 21:08 **Matrix: Solid** Date Received: 12/21/12 14:12 Analyte Result Qualifier RL RL Unit D Prepared Analyzed Dil Fac 0.10 0.10 % 12/26/12 10:50 **Percent Moisture** 18 0.10 0.10 % **Percent Solids** 82 12/26/12 10:50 **Client Sample ID: SE-01 - (34-36)** Lab Sample ID: 280-37307-3

RL

0.10

0.10

5.6

Result Qualifier

24

76

1.8

Date Collected: 12/20/12 21:25

Date Received: 12/21/12 14:12

Client Sample ID: SE-01 - GW

Date Collected: 12/20/12 23:00

Date Received: 12/21/12 14:12

Analyte

Analyte

**Percent Moisture** 

HEM (Oil & Grease)

**Percent Solids** 

Lab Sample ID: 280-37307-4

**Matrix: Solid** 

Dil Fac

Dil Fac

**Matrix: Water** 

Analyzed

12/26/12 10:50

12/26/12 10:50

Analyzed

12/31/12 15:42

Result Qualifier RL MDI Unit Prepared 1.5

mg/L

0.10 %

0.10 %

**RL** Unit

D

Prepared

12/31/12 12:38

Client: RMC Consultants Inc Project/Site: US 6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS)

MR MR

Lab Sample ID: MB 280-153850/1-A

**Matrix: Solid** 

1,2-Dichloropropane

Analysis Batch: 153854

Client Sample ID: Method Blank

**Prep Type: Total/NA Prep Batch: 153850** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.57	J	20	5.4	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
2-Butanone (MEK)	ND		20	1.8	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Benzene	ND		5.0	0.47	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chlorobenzene	ND		5.0	0.54	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Carbon disulfide	ND		5.0	0.42	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Cyclohexane	ND		5.0	0.40	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Bromomethane	ND		10	0.50	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Bromoform	0.322	J	5.0	0.23	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chloroethane	ND		10	0.89	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chloroform	ND		10	0.29	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chlorobromomethane	ND		5.0	0.30	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Dichlorobromomethane	ND		5.0	0.22	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chlorodibromomethane	ND		5.0	0.57	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Isopropylbenzene	ND		5.0	0.59	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
2-Hexanone	ND		20	4.9	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Chloromethane	ND		10	0.77	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Dichlorodifluoromethane	ND		10	0.52	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
trans-1,2-Dichloroethene	ND		2.5	0.39	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methylene Chloride	ND		5.0	1.6	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methyl acetate	ND		10	2.8	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methyl tert-butyl ether	ND		20	0.34	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
4-Methyl-2-pentanone (MIBK)	ND		20	4.4	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Methylcyclohexane	ND		5.0	0.42	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Styrene	ND		5.0	0.63	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.61	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2,3-Trichlorobenzene	ND		5.0	0.75	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2,4-Trichlorobenzene	ND		5.0	0.73	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Toluene	ND		5.0	0.69	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1,1-Trichloroethane	ND		5.0	0.52	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1,2-Trichloroethane	ND		5.0	0.88	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Trichloroethene	ND		5.0	0.23	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1,2-Trichlorotrifluoroethane	ND		20	0.45	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Vinyl chloride	ND		5.0	1.3	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
m-Xylene & p-Xylene	ND		2.5	1.0	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
o-Xylene	ND		2.5	0.61	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Tetrachloroethene	ND		5.0	0.59	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dichlorobenzene	ND		5.0	0.45	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,3-Dichlorobenzene	ND		5.0	0.48	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,4-Dichlorobenzene	ND		5.0	0.78	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
cis-1,2-Dichloroethene	ND		2.5	0.56	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
cis-1,3-Dichloropropene	ND		5.0	1.3	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1-Dichloroethane	ND		5.0	0.21	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,1-Dichloroethene	ND		5.0	0.59	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dichloroethane	ND		5.0	0.70	ug/Kg		12/26/12 16:00	12/26/12 19:17	1

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12/26/12 19:17

12/26/12 16:00

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5.0

0.55 ug/Kg

ND

Client: RMC Consultants Inc Project/Site: US 6 at I-25

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 280-153850/1-A

Lab Sample ID: LCS 280-153850/2-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 153854

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 153850** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		500	56	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Ethylbenzene	ND		5.0	0.67	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
1,2-Dibromoethane	ND		5.0	0.52	ug/Kg		12/26/12 16:00	12/26/12 19:17	1
Trichlorofluoromethane	ND		10	1.0	ug/Kg		12/26/12 16:00	12/26/12 19:17	1

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 109 58 - 140 12/26/12 16:00 12/26/12 19:17 Toluene-d8 (Surr) 97 80 - 126 12/26/12 16:00 12/26/12 19:17 4-Bromofluorobenzene (Surr) 96 76 - 127 12/26/12 16:00 12/26/12 19:17 Dibromofluoromethane (Surr) 113 75 - 121 12/26/12 16:00 12/26/12 19:17

> **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Analysis Batch: 153854	Spike	LCS I	_cs		Prep Batch: 1538
Analyte	Added	Result (	Qualifier Unit	D %Rec	Limits
Acetone	200	219	ug/Kg	109	65 - 150
2-Butanone (MEK)	200	227	ug/Kg	113	45 - 177
Benzene	50.0	39.9	ug/Kg	80	75 <sub>-</sub> 135
Chlorobenzene	50.0	40.5	ug/Kg	81	78 - 135
Carbon disulfide	50.0	29.5	ug/Kg	59	45 - 150
Carbon tetrachloride	50.0	40.3	ug/Kg	81	69 - 138
1,2-Dibromo-3-Chloropropane	50.0	43.4	ug/Kg	87	66 - 150
Bromomethane	50.0	43.2	ug/Kg	86	52 - 135
Bromoform	50.0	45.2	ug/Kg	90	77 - 135
Chloroethane	50.0	40.0	ug/Kg	80	51 <sub>-</sub> 145
Chloroform	50.0	39.4	ug/Kg	79	73 - 123
Chlorobromomethane	50.0	44.0	ug/Kg	88	74 - 135
Dichlorobromomethane	50.0	43.2	ug/Kg	86	73 <sub>-</sub> 135
Chlorodibromomethane	50.0	44.5	ug/Kg	89	77 - 135
Isopropylbenzene	50.0	39.3	ug/Kg	79	74 - 137
2-Hexanone	200	215	ug/Kg	108	67 <sub>-</sub> 150
Chloromethane	50.0	41.2	ug/Kg	82	41 - 138
Dichlorodifluoromethane	50.0	42.5	ug/Kg	85	32 - 152
trans-1,2-Dichloroethene	50.0	40.3	ug/Kg	81	77 - 135
trans-1,3-Dichloropropene	50.0	44.8	ug/Kg	90	71 <sub>-</sub> 135
Methylene Chloride	50.0	42.8	ug/Kg	86	76 - 136
Methyl tert-butyl ether	50.0	47.6	ug/Kg	95	71 <sub>-</sub> 141
4-Methyl-2-pentanone (MIBK)	200	217	ug/Kg	108	69 - 150
Styrene	50.0	42.9	ug/Kg	86	76 - 135
1,1,2,2-Tetrachloroethane	50.0	44.6	ug/Kg	89	65 - 135
1,2,3-Trichlorobenzene	50.0	42.4	ug/Kg	85	62 - 135
1,2,4-Trichlorobenzene	50.0	41.8	ug/Kg	84	65 _ 135
Toluene	50.0	40.0	ug/Kg	80	77 - 122
1,1,1-Trichloroethane	50.0	41.6	ug/Kg	83	70 - 135
1,1,2-Trichloroethane	50.0	42.5	ug/Kg	85	78 <sub>-</sub> 135
Trichloroethene	50.0	38.6	ug/Kg	77	77 <sub>-</sub> 135
Vinyl chloride	50.0	41.9	ug/Kg	84	43 - 145

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-153850/2-A

**Matrix: Solid** 

Analysis Batch: 153854

Client Sample ID: Lab Control Sample

**Prep Type: Total/NA** Prep Batch: 153850

/ indigoto Batom 10000 i							op Bato.	
-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	100	79.7		ug/Kg		80	77 - 135	
o-Xylene	50.0	41.0		ug/Kg		82	75 - 135	
Tetrachloroethene	50.0	39.5		ug/Kg		79	76 - 135	
1,2-Dichlorobenzene	50.0	41.7		ug/Kg		83	73 - 135	
1,3-Dichlorobenzene	50.0	40.5		ug/Kg		81	69 - 135	
1,4-Dichlorobenzene	50.0	40.3		ug/Kg		81	73 - 135	
cis-1,2-Dichloroethene	50.0	40.4		ug/Kg		81	76 - 135	
cis-1,3-Dichloropropene	50.0	42.6		ug/Kg		85	71 <sub>-</sub> 135	
1,1-Dichloroethane	50.0	41.0		ug/Kg		82	70 - 135	
1,1-Dichloroethene	50.0	42.2		ug/Kg		84	79 - 135	
1,2-Dichloroethane	50.0	44.0		ug/Kg		88	69 - 135	
1,2-Dichloropropane	50.0	40.8		ug/Kg		82	72 - 121	
Ethylbenzene	50.0	40.3		ug/Kg		81	73 - 125	
1,2-Dibromoethane	50.0	42.7		ug/Kg		85	76 - 135	
Trichlorofluoromethane	50.0	46.7		ug/Kg		93	48 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		58 - 140
Toluene-d8 (Surr)	97		80 - 126
4-Bromofluorobenzene (Surr)	98		76 - 127
Dibromofluoromethane (Surr)	111		75 - 121

Lab Sample ID: MB 280-153919/1-A

**Matrix: Solid** 

**Analysis Batch: 153872** 

Client Sample ID: Method Blank
--------------------------------

**Prep Type: Total/NA** 

**Prep Batch: 153919** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	5.4	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
2-Butanone (MEK)	ND		20	1.8	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Benzene	ND		5.0	0.47	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chlorobenzene	ND		5.0	0.54	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Carbon disulfide	ND		5.0	0.42	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Cyclohexane	ND		5.0	0.40	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Bromomethane	ND		10	0.50	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Bromoform	ND		5.0	0.23	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chloroethane	ND		10	0.89	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chloroform	ND		10	0.29	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chlorobromomethane	ND		5.0	0.30	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Dichlorobromomethane	ND		5.0	0.22	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chlorodibromomethane	ND		5.0	0.57	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Isopropylbenzene	ND		5.0	0.59	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
2-Hexanone	ND		20	4.9	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chloromethane	ND		10	0.77	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Dichlorodifluoromethane	ND		10	0.52	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
trans-1,2-Dichloroethene	ND		2.5	0.39	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/Kg		12/27/12 06:00	12/27/12 11:35	1

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 153919

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153919/1-A Matrix: Solid

Analysis Batch: 153872

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	1.6	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methyl acetate	ND		10	2.8	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methyl tert-butyl ether	ND		20	0.34	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
4-Methyl-2-pentanone (MIBK)	ND		20	4.4	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methylcyclohexane	ND		5.0	0.42	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Styrene	ND		5.0	0.63	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.61	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2,3-Trichlorobenzene	ND		5.0	0.75	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2,4-Trichlorobenzene	ND		5.0	0.73	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Toluene	ND		5.0	0.69	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1,1-Trichloroethane	ND		5.0	0.52	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1,2-Trichloroethane	ND		5.0	0.88	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Trichloroethene	ND		5.0	0.23	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1,2-Trichlorotrifluoroethane	ND		20	0.45	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Vinyl chloride	ND		5.0	1.3	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
m-Xylene & p-Xylene	ND		2.5	1.0	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
o-Xylene	ND		2.5	0.61	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Tetrachloroethene	ND		5.0	0.59	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dichlorobenzene	ND		5.0	0.45	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,3-Dichlorobenzene	ND		5.0	0.48	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,4-Dichlorobenzene	ND		5.0	0.78	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
cis-1,2-Dichloroethene	ND		2.5	0.56	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
cis-1,3-Dichloropropene	ND		5.0	1.3	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1-Dichloroethane	ND		5.0	0.21	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1-Dichloroethene	ND		5.0	0.59	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dichloroethane	ND		5.0	0.70	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dichloropropane	ND		5.0	0.55	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,4-Dioxane	ND		500	56	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Ethylbenzene	ND		5.0	0.67	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dibromoethane	ND		5.0	0.52	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Trichlorofluoromethane	ND		10	1.0	ug/Kg		12/27/12 06:00	12/27/12 11:35	1

MB	MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		58 - 140	12/27/12 06:00	12/27/12 11:35	1
Toluene-d8 (Surr)	111		80 - 126	12/27/12 06:00	12/27/12 11:35	1
4-Bromofluorobenzene (Surr)	107		76 - 127	12/27/12 06:00	12/27/12 11:35	1
Dibromofluoromethane (Surr)	92		75 - 121	12/27/12 06:00	12/27/12 11:35	1

Lab Sample ID: LCS 280-153919/2-A

Matrix: Solid

Analysis Batch: 153872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153919

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	200	256		ug/Kg		128	65 - 150	<del></del>
2-Butanone (MEK)	200	305		ug/Kg		152	45 - 177	
Benzene	50.0	47.9		ug/Kg		96	75 <sub>-</sub> 135	
Chlorobenzene	50.0	50.5		ug/Kg		101	78 <sub>-</sub> 135	
Carbon disulfide	50.0	39.8		ug/Kg		80	45 - 150	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

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### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab	Sample	ID:	LCS	280-1	15391	9/2-A

**Matrix: Solid** 

**Analysis Batch: 153872** 

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 153919

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Carbon tetrachloride	50.0	48.7		ug/Kg		97	69 - 138	
1,2-Dibromo-3-Chloropropane	50.0	59.7		ug/Kg		119	66 - 150	
Bromomethane	50.0	41.0		ug/Kg		82	52 - 135	
Bromoform	50.0	51.8		ug/Kg		104	77 - 135	
Chloroethane	50.0	37.7		ug/Kg		75	51 <sub>-</sub> 145	
Chloroform	50.0	45.2		ug/Kg		90	73 - 123	
Chlorobromomethane	50.0	45.3		ug/Kg		91	74 <sub>-</sub> 135	
Dichlorobromomethane	50.0	51.5		ug/Kg		103	73 <sub>-</sub> 135	
Chlorodibromomethane	50.0	58.2		ug/Kg		116	77 - 135	
Isopropylbenzene	50.0	53.5		ug/Kg		107	74 - 137	
2-Hexanone	200	255		ug/Kg		127	67 - 150	
Chloromethane	50.0	47.0		ug/Kg		94	41 - 138	
Dichlorodifluoromethane	50.0	38.2		ug/Kg		76	32 - 152	
trans-1,2-Dichloroethene	50.0	44.2		ug/Kg		88	77 <sub>-</sub> 135	
trans-1,3-Dichloropropene	50.0	54.4		ug/Kg		109	71 <sub>-</sub> 135	
Methylene Chloride	50.0	46.9		ug/Kg		94	76 - 136	
Methyl tert-butyl ether	50.0	41.5		ug/Kg		83	71 <sub>-</sub> 141	
4-Methyl-2-pentanone (MIBK)	200	242		ug/Kg		121	69 _ 150	
Styrene	50.0	48.7		ug/Kg		97	76 - 135	
1,1,2,2-Tetrachloroethane	50.0	57.3		ug/Kg		115	65 _ 135	
1,2,3-Trichlorobenzene	50.0	47.4		ug/Kg		95	62 - 135	
1,2,4-Trichlorobenzene	50.0	47.6		ug/Kg		95	65 <sub>-</sub> 135	
Toluene	50.0	48.5		ug/Kg		97	77 _ 122	
1,1,1-Trichloroethane	50.0	45.5		ug/Kg		91	70 - 135	
1,1,2-Trichloroethane	50.0	48.2		ug/Kg		96	78 <sub>-</sub> 135	
Trichloroethene	50.0	48.4		ug/Kg		97	77 - 135	
Vinyl chloride	50.0	38.0		ug/Kg		76	43 - 145	
m-Xylene & p-Xylene	100	99.6		ug/Kg		100	77 - 135	
o-Xylene	50.0	47.9		ug/Kg		96	75 - 135	
Tetrachloroethene	50.0	53.4		ug/Kg		107	76 <sub>-</sub> 135	
1,2-Dichlorobenzene	50.0	49.5		ug/Kg		99	73 - 135	
1,3-Dichlorobenzene	50.0	50.7		ug/Kg		101	69 - 135	
1,4-Dichlorobenzene	50.0	50.5		ug/Kg		101	73 - 135	
cis-1,2-Dichloroethene	50.0	44.2		ug/Kg		88	76 - 135	
cis-1,3-Dichloropropene	50.0	61.1		ug/Kg		122	71 <sub>-</sub> 135	
1,1-Dichloroethane	50.0	45.6		ug/Kg		91	70 - 135	
1,1-Dichloroethene	50.0	53.2		ug/Kg		106	79 <sub>-</sub> 135	
1,2-Dichloroethane	50.0	48.4		ug/Kg		97	69 - 135	
1,2-Dichloropropane	50.0	50.4		ug/Kg		101	72 _ 121	
Ethylbenzene	50.0	50.0		ug/Kg		100	73 - 125	
1,2-Dibromoethane	50.0	54.0		ug/Kg		108	76 - 135	
Trichlorofluoromethane	50.0	36.5		ug/Kg		73	48 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		58 - 140
Toluene-d8 (Surr)	108		80 - 126
4-Bromofluorobenzene (Surr)	106		76 - 127
Dibromofluoromethane (Surr)	92		75 <sub>-</sub> 121

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153993/6

Matrix: Water

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acetone	ND		10	1.9	ug/L			12/28/12 11:08	
2-Butanone (MEK)	ND		6.0	2.0	ug/L			12/28/12 11:08	
Benzene	ND		1.0	0.16	ug/L			12/28/12 11:08	
Chlorobenzene	ND		1.0	0.17	ug/L			12/28/12 11:08	
Carbon disulfide	ND		2.0	0.45	ug/L			12/28/12 11:08	
Carbon tetrachloride	ND		1.0	0.19	ug/L			12/28/12 11:08	
Cyclohexane	ND		2.0	0.28	ug/L			12/28/12 11:08	
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			12/28/12 11:08	
Bromomethane	ND		2.0	0.21	ug/L			12/28/12 11:08	
Bromoform	ND		1.0	0.19	ug/L			12/28/12 11:08	
Chloroethane	ND		2.0	0.41	ug/L			12/28/12 11:08	
Chloroform	ND		1.0	0.16	ug/L			12/28/12 11:08	
Chlorobromomethane	ND		1.0	0.10	ug/L			12/28/12 11:08	
Dichlorobromomethane	ND		1.0		ug/L			12/28/12 11:08	
Chlorodibromomethane	ND		1.0		ug/L			12/28/12 11:08	
Isopropylbenzene	ND		1.0		ug/L			12/28/12 11:08	
2-Hexanone	ND		5.0		ug/L			12/28/12 11:08	
Chloromethane	ND		2.0		ug/L			12/28/12 11:08	
Dichlorodifluoromethane	ND		2.0		ug/L			12/28/12 11:08	
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/28/12 11:08	
trans-1,3-Dichloropropene	ND		3.0		ug/L			12/28/12 11:08	
Methylene Chloride	0.490		2.0		ug/L			12/28/12 11:08	
Methyl acetate	ND		5.0		ug/L			12/28/12 11:08	
Methyl tert-butyl ether	ND		5.0		ug/L			12/28/12 11:08	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			12/28/12 11:08	
Methylcyclohexane	ND		1.0		ug/L			12/28/12 11:08	
Styrene	ND		1.0		ug/L			12/28/12 11:08	
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/28/12 11:08	
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			12/28/12 11:08	
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/28/12 11:08	
Toluene	ND		1.0		ug/L ug/L			12/28/12 11:08	
1,1,1-Trichloroethane	ND		1.0		ug/L ug/L			12/28/12 11:08	
1,1,2-Trichloroethane	ND		1.0		ug/L ug/L			12/28/12 11:08	
Trichloroethene	ND		1.0		ug/L ug/L			12/28/12 11:08	
1,1,2-Trichlorotrifluoroethane	ND		3.0		ug/L ug/L			12/28/12 11:08	
Vinyl chloride	ND		1.0		ug/L			12/28/12 11:08	
								12/28/12 11:08	
m-Xylene & p-Xylene	ND		2.0		ug/L				
o-Xylene	ND		1.0		ug/L			12/28/12 11:08	
Tetrachloroethene	ND		1.0		ug/L			12/28/12 11:08	
1,2-Dichlorobenzene	ND		1.0		ug/L			12/28/12 11:08	
1,3-Dichlorobenzene	ND		1.0		ug/L			12/28/12 11:08	
1,4-Dichlorobenzene	ND		1.0		ug/L			12/28/12 11:08	
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/28/12 11:08	
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/28/12 11:08	
1,1-Dichloroethane	ND		1.0		ug/L			12/28/12 11:08	
1,1-Dichloroethene	ND		1.0		ug/L			12/28/12 11:08	
1,2-Dichloroethane	ND		1.0	0.13	ug/L			12/28/12 11:08	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153993/6

**Matrix: Water** 

Analysis Batch: 153993

Client Sample ID: Method Blank
Prep Type: Total/NA

	MB I	MB							
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		200	57	ug/L			12/28/12 11:08	1
Ethylbenzene	ND		1.0	0.16	ug/L			12/28/12 11:08	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			12/28/12 11:08	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			12/28/12 11:08	1

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 70 - 127 12/28/12 11:08 90 Toluene-d8 (Surr) 83 80 - 125 12/28/12 11:08 4-Bromofluorobenzene (Surr) 81 78 - 120 12/28/12 11:08 Dibromofluoromethane (Surr) 93 77 - 120 12/28/12 11:08

Lab Sample ID: LCS 280-153993/23

Client Sample ID: Lab Control Sample
Matrix: Water

Prep Type: Total/NA

Analysis Batch: 153993

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	20.0	20.3		ug/L		102	50 - 156	_
2-Butanone (MEK)	20.0	26.6		ug/L		133	44 - 150	
Benzene	5.00	5.39		ug/L		108	74 - 135	
Chlorobenzene	5.00	5.09		ug/L		102	76 - 135	
Carbon disulfide	5.00	4.77		ug/L		95	34 - 150	
Carbon tetrachloride	5.00	5.24		ug/L		105	67 _ 135	
1,2-Dibromo-3-Chloropropane	5.00	4.55	J	ug/L		91	65 - 150	
Bromomethane	5.00	4.21		ug/L		84	38 - 150	
Bromoform	5.00	4.57		ug/L		91	62 - 135	
Chloroethane	5.00	4.31		ug/L		86	46 - 147	
Chloroform	5.00	5.12		ug/L		102	76 - 120	
Chlorobromomethane	5.00	5.03		ug/L		101	70 - 135	
Dichlorobromomethane	5.00	5.25		ug/L		105	73 - 135	
Chlorodibromomethane	5.00	4.41		ug/L		88	68 - 135	
Isopropylbenzene	5.00	5.09		ug/L		102	75 - 135	
2-Hexanone	20.0	18.0		ug/L		90	47 - 150	
Chloromethane	5.00	4.34		ug/L		87	34 - 145	
Dichlorodifluoromethane	5.00	3.94		ug/L		79	28 - 152	
trans-1,2-Dichloroethene	5.00	5.54		ug/L		111	75 - 135	
trans-1,3-Dichloropropene	5.00	5.01		ug/L		100	68 - 135	
Methylene Chloride	5.00	5.29		ug/L		106	54 - 141	
Methyl tert-butyl ether	5.00	5.07		ug/L		101	46 - 135	
4-Methyl-2-pentanone (MIBK)	20.0	19.2		ug/L		96	53 - 150	
Styrene	5.00	4.85		ug/L		97	68 - 135	
1,1,2,2-Tetrachloroethane	5.00	5.55		ug/L		111	66 - 135	
1,2,3-Trichlorobenzene	5.00	4.70		ug/L		94	60 - 135	
1,2,4-Trichlorobenzene	5.00	4.53		ug/L		91	64 - 135	
Toluene	5.00	5.73		ug/L		115	73 - 120	
1,1,1-Trichloroethane	5.00	5.23		ug/L		105	70 - 135	
1,1,2-Trichloroethane	5.00	5.08		ug/L		102	73 - 135	
Trichloroethene	5.00	5.13		ug/L		103	73 - 135	
Vinyl chloride	5.00	4.08		ug/L		82	40 - 144	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-153993/23

**Matrix: Water** 

Analysis Batch: 153993

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	10.0	10.3		ug/L		103	74 - 135	
o-Xylene	5.00	4.85		ug/L		97	73 - 135	
Tetrachloroethene	5.00	4.99		ug/L		100	70 - 135	
1,2-Dichlorobenzene	5.00	5.17		ug/L		103	75 - 135	
1,3-Dichlorobenzene	5.00	5.13		ug/L		103	74 - 135	
1,4-Dichlorobenzene	5.00	5.10		ug/L		102	75 - 135	
cis-1,2-Dichloroethene	5.00	5.31		ug/L		106	73 - 135	
cis-1,3-Dichloropropene	5.00	4.35		ug/L		87	66 - 135	
1,1-Dichloroethane	5.00	5.15		ug/L		103	75 - 135	
1,1-Dichloroethene	5.00	6.12		ug/L		122	71 - 136	
1,2-Dichloroethane	5.00	5.11		ug/L		102	70 - 135	
1,2-Dichloropropane	5.00	5.13		ug/L		103	71 - 120	
Ethylbenzene	5.00	5.14		ug/L		103	72 - 120	
1,2-Dibromoethane	5.00	5.05		ug/L		101	71 <sub>-</sub> 135	
Trichlorofluoromethane	5.00	4.08		ug/L		82	47 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 127
Toluene-d8 (Surr)	85		80 - 125
4-Bromofluorobenzene (Surr)	84		78 - 120
Dibromofluoromethane (Surr)	92		77 - 120

# Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-153760/1-A

**Matrix: Water** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 154290								Prep Batch:	153760
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		10	1.8	ug/L		12/26/12 12:25	12/31/12 15:32	1
1,2,4,5-Tetrachlorobenzene	ND		10	1.7	ug/L		12/26/12 12:25	12/31/12 15:32	1
1,2,4-Trichlorobenzene	ND		4.0	0.28	ug/L		12/26/12 12:25	12/31/12 15:32	1
1,2-Dichlorobenzene	ND		4.0	0.23	ug/L		12/26/12 12:25	12/31/12 15:32	1
1,3-Dichlorobenzene	ND		10	0.30	ug/L		12/26/12 12:25	12/31/12 15:32	1
1,4-Dichlorobenzene	ND		4.0	0.32	ug/L		12/26/12 12:25	12/31/12 15:32	1
1,4-Dioxane	ND		20	1.7	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,4,6-Trichlorophenol	ND		10	0.29	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,4-Dichlorophenol	ND		10	0.64	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,2'-oxybis[1-chloropropane]	ND		10	0.28	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,3,4,6-Tetrachlorophenol	ND		50	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,4,5-Trichlorophenol	ND		10	0.45	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,4-Dimethylphenol	ND		10	0.58	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,4-Dinitrophenol	ND		30	10	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,4-Dinitrotoluene	ND		10	1.7	ug/L		12/26/12 12:25	12/31/12 15:32	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		12/26/12 12:25	12/31/12 15:32	1
2-Chloronaphthalene	ND		4.0	0.26	ug/L		12/26/12 12:25	12/31/12 15:32	1
2-Chlorophenol	ND		10	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
2-Methylnaphthalene	ND		4.0	0.29	ug/L		12/26/12 12:25	12/31/12 15:32	1

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153760/1-A

**Matrix: Water** 

Analysis Batch: 154290

**Client Sample ID: Method Blank Prep Type: Total/NA** 

**Prep Batch: 153760** 

•	МВ	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		10	0.98	ug/L		12/26/12 12:25	12/31/12 15:32	1
3 & 4 Methylphenol	ND		10	0.25	ug/L		12/26/12 12:25	12/31/12 15:32	1
2-Nitroaniline	ND		10	1.7	ug/L		12/26/12 12:25	12/31/12 15:32	1
2-Nitrophenol	ND		10	0.39	ug/L		12/26/12 12:25	12/31/12 15:32	1
3,3'-Dichlorobenzidine	ND		50	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
3-Nitroaniline	ND		10	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
4,6-Dinitro-2-methylphenol	ND		50	4.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
4-Bromophenyl phenyl ether	ND		10	0.43	ug/L		12/26/12 12:25	12/31/12 15:32	1
4-Chloro-3-methylphenol	ND		10	2.4	ug/L		12/26/12 12:25	12/31/12 15:32	1
4-Chloroaniline	ND		10	2.1	ug/L		12/26/12 12:25	12/31/12 15:32	1
4-Chlorophenyl phenyl ether	ND		10	1.7	ug/L		12/26/12 12:25	12/31/12 15:32	1
4-Nitroaniline	ND		10	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
4-Nitrophenol	ND		10	1.2	ug/L		12/26/12 12:25	12/31/12 15:32	1
Acenaphthene	ND		4.0	0.28	ug/L		12/26/12 12:25	12/31/12 15:32	1
Acenaphthylene	ND		4.0	0.49	ug/L		12/26/12 12:25	12/31/12 15:32	1
Acetophenone	ND		10	0.24	ug/L		12/26/12 12:25	12/31/12 15:32	1
Anthracene	ND		4.0	0.42	ug/L		12/26/12 12:25	12/31/12 15:32	1
Atrazine	ND		10	0.73	ug/L		12/26/12 12:25	12/31/12 15:32	1
Benzaldehyde	ND		10	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
Benzo[a]pyrene	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Benzo[b]fluoranthene	ND		4.0	0.53	ug/L		12/26/12 12:25	12/31/12 15:32	1
Benzo[g,h,i]perylene	ND		4.0	0.50	_		12/26/12 12:25	12/31/12 15:32	1
Benzo[k]fluoranthene	ND		4.0	0.46	ug/L		12/26/12 12:25	12/31/12 15:32	1
Benzo[a]anthracene	ND		4.0	0.35	ug/L		12/26/12 12:25	12/31/12 15:32	1
Bis(2-chloroethoxy)methane	ND		10	0.97	ug/L		12/26/12 12:25	12/31/12 15:32	1
Bis(2-chloroethyl)ether	ND		10	0.41	ug/L		12/26/12 12:25	12/31/12 15:32	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		12/26/12 12:25	12/31/12 15:32	1
Butyl benzyl phthalate	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Caprolactam	ND		10		ug/L		12/26/12 12:25	12/31/12 15:32	1
Carbazole	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Chrysene	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Dibenz(a,h)anthracene	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Di-n-butyl phthalate	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Di-n-octyl phthalate	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Dibenzofuran	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Diethyl phthalate	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Dimethyl phthalate	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Fluoranthene	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Fluorene	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Hexachlorobenzene	ND		10		ug/L		12/26/12 12:25	12/31/12 15:32	1
Hexachlorobutadiene	ND		10		ug/L		12/26/12 12:25	12/31/12 15:32	1
Hexachlorocyclopentadiene	ND		50		ug/L		12/26/12 12:25	12/31/12 15:32	· · · · · · · · · · · · · · · · · · ·
Hexachloroethane	ND		10		ug/L		12/26/12 12:25	12/31/12 15:32	
Indeno[1,2,3-cd]pyrene	ND		4.0		ug/L		12/26/12 12:25	12/31/12 15:32	1
Isophorone	ND		10		ug/L		12/26/12 12:25	12/31/12 15:32	
N-Nitrosodi-n-propylamine	ND ND		10		ug/L ug/L		12/26/12 12:25	12/31/12 15:32	1
• • •			10		_				1
n-Nitrosodiphenylamine(as diphenylamine)	ND		10	0.44	ug/L		12/26/12 12:25	12/31/12 15:32	

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-153760/1-A

**Matrix: Water** 

Analysis Batch: 154290

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 153760

ı		IVID	WID							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Naphthalene	ND		4.0	0.29	ug/L		12/26/12 12:25	12/31/12 15:32	1
١	Nitrobenzene	ND		10	0.81	ug/L		12/26/12 12:25	12/31/12 15:32	1
١	Pentachlorophenol	ND		50	20	ug/L		12/26/12 12:25	12/31/12 15:32	1
ı	Phenanthrene	ND		4.0	0.26	ug/L		12/26/12 12:25	12/31/12 15:32	1
١	Phenol	ND		10	2.0	ug/L		12/26/12 12:25	12/31/12 15:32	1
ı	Pyrene	ND		10	0.37	ug/L		12/26/12 12:25	12/31/12 15:32	1

MB MB

MR MR

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	75	51 - 120	12/26/12 12:25	12/31/12 15:32	1
Phenol-d5	79	51 - 120	12/26/12 12:25	12/31/12 15:32	1
2,4,6-Tribromophenol	97	57 - 120	12/26/12 12:25	12/31/12 15:32	1
2-Fluorobiphenyl	64	38 - 120	12/26/12 12:25	12/31/12 15:32	1
Nitrobenzene-d5	78	48 - 120	12/26/12 12:25	12/31/12 15:32	1
Terphenyl-d14	83	50 - 120	12/26/12 12:25	12/31/12 15:32	1

Lab Sample ID: LCS 280-153760/2-A

**Matrix: Water** 

4-Chloroaniline

4-Nitroaniline

4-Nitrophenol

4-Chlorophenyl phenyl ether

Analysis Batch: 154290

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 153760

7								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2,4-Trichlorobenzene	80.0	53.7		ug/L		67	28 - 120	
1,2-Dichlorobenzene	80.0	49.6		ug/L		62	28 - 120	
1,3-Dichlorobenzene	80.0	46.7		ug/L		58	24 - 120	
1,4-Dichlorobenzene	80.0	47.6		ug/L		59	25 _ 120	
2,4,6-Trichlorophenol	80.0	73.4		ug/L		92	62 _ 120	
2,4-Dichlorophenol	80.0	71.5		ug/L		89	62 - 120	
2,2'-oxybis[1-chloropropane]	80.0	55.0		ug/L		69	49 - 120	
2,4,5-Trichlorophenol	80.0	72.7		ug/L		91	64 - 120	
2,4-Dimethylphenol	80.0	55.5		ug/L		69	44 - 120	
2,4-Dinitrophenol	80.0	70.5		ug/L		88	55 - 120	
2,4-Dinitrotoluene	80.0	73.9		ug/L		92	76 - 120	
2,6-Dinitrotoluene	80.0	70.9		ug/L		89	73 - 120	
2-Chloronaphthalene	80.0	62.4		ug/L		78	51 - 120	
2-Chlorophenol	80.0	65.7		ug/L		82	58 - 120	
2-Methylnaphthalene	80.0	58.9		ug/L		74	42 - 120	
2-Methylphenol	80.0	63.8		ug/L		80	62 _ 120	
3 & 4 Methylphenol	160	129		ug/L		81	58 - 120	
2-Nitroaniline	80.0	68.4		ug/L		86	70 - 120	
2-Nitrophenol	80.0	74.1		ug/L		93	59 <sub>-</sub> 120	
3,3'-Dichlorobenzidine	80.0	37.3	J	ug/L		47	10 - 120	
3-Nitroaniline	80.0	69.6		ug/L		87	70 - 120	
4,6-Dinitro-2-methylphenol	80.0	76.7		ug/L		96	63 _ 125	
4-Bromophenyl phenyl ether	80.0	67.3		ug/L		84	69 - 120	
4-Chloro-3-methylphenol	80.0	72.3		ug/L		90	69 - 120	

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60 - 120

67 \_ 120

70 - 120

59 - 129

85

93

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63.3

67.7

72.7

74.8

ug/L

ug/L

ug/L

ug/L

80.0

0.08

80.0

80.0

4

6

8

10

12

13

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Analysis Batch: 154290

**Matrix: Water** 

Lab Sample ID: LCS 280-153760/2-A

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Prep Type: Total/NA
Prep Batch: 153760
%Rec.
 Limita

Analysis Batch: 154290	Spike	LCS	LCS				%Rec.	icn: 15376
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	80.0	64.2	-	ug/L		80	61 - 120	
Acenaphthylene	80.0	65.7		ug/L		82	63 _ 120	
Anthracene	80.0	63.9		ug/L		80	71 - 120	
Benzo[a]pyrene	80.0	57.1		ug/L		71	63 - 120	
Benzo[b]fluoranthene	80.0	63.6		ug/L		80	65 - 120	
Benzo[g,h,i]perylene	80.0	68.1		ug/L		85	69 - 120	
Benzo[k]fluoranthene	80.0	66.0		ug/L		83	66 - 120	
Benzo[a]anthracene	80.0	65.4		ug/L		82	71 - 120	
Bis(2-chloroethoxy)methane	80.0	65.8		ug/L		82	64 - 120	
Bis(2-chloroethyl)ether	80.0	63.8		ug/L		80	60 - 120	
Bis(2-ethylhexyl) phthalate	80.0	70.4		ug/L		88	62 _ 133	
Butyl benzyl phthalate	80.0	67.5		ug/L		84	71 - 120	
Carbazole	80.0	65.0		ug/L		81	72 _ 120	
Chrysene	80.0	64.4		ug/L		80	69 - 120	
Dibenz(a,h)anthracene	80.0	68.2		ug/L		85	63 _ 120	
Di-n-butyl phthalate	80.0	68.0		ug/L		85	75 - 120	
Di-n-octyl phthalate	80.0	67.5		ug/L		84	71 - 120	
Diethyl phthalate	80.0	70.2		ug/L		88	73 - 120	
Dimethyl phthalate	80.0	69.4		ug/L		87	73 - 120	
Fluoranthene	80.0	67.6		ug/L		85	73 _ 120	
Fluorene	80.0	65.8		ug/L		82	68 - 120	
Hexachlorobenzene	80.0	66.4		ug/L		83	69 - 120	
Hexachlorobutadiene	80.0	49.9		ug/L		62	24 - 120	
Hexachlorocyclopentadiene	80.0	12.9	J	ug/L		16	10 - 120	
Hexachloroethane	80.0	46.0		ug/L		57	21 - 120	
Indeno[1,2,3-cd]pyrene	80.0	65.5		ug/L		82	63 - 120	
Isophorone	80.0	68.8		ug/L		86	65 - 120	
N-Nitrosodi-n-propylamine	80.0	65.9		ug/L		82	58 - 120	
n-Nitrosodiphenylamine(as	68.3	54.4		ug/L		80	66 - 120	
diphenylamine)								
Naphthalene	80.0	56.8		ug/L		71	39 - 120	
Nitrobenzene	80.0	64.6		ug/L		81	59 - 120	
Pentachlorophenol	80.0	69.3		ug/L		87	57 - 120	
Phenanthrene	80.0	65.5		ug/L		82	71 - 120	
Phenol	80.0	66.5		ug/L		83	61 - 120	
Pyrene	80.0	64.7		ug/L		81	71 - 120	
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Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol	78		51 - 120
Phenol-d5	83		51 - 120
2,4,6-Tribromophenol	101		57 - 120
2-Fluorobiphenyl	78		38 - 120
Nitrobenzene-d5	83		48 - 120
Terphenyl-d14	83		50 - 120

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

# Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-153611/1-A

**Matrix: Solid** 

Analysis Batch: 154261

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 153611** 

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
4,4'-DDD	ND		1.6	0.53	ug/Kg		12/24/12 11:15	12/31/12 16:32	
4,4'-DDE	ND		1.6	0.23	ug/Kg		12/24/12 11:15	12/31/12 16:32	•
4,4'-DDT	ND		1.6	0.57	ug/Kg		12/24/12 11:15	12/31/12 16:32	•
Aldrin	ND		1.6	0.24	ug/Kg		12/24/12 11:15	12/31/12 16:32	
alpha-BHC	ND		1.6	0.21	ug/Kg		12/24/12 11:15	12/31/12 16:32	•
beta-BHC	ND		1.6	0.64	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Chlordane (n.o.s.)	ND		1.6	0.21	ug/Kg		12/24/12 11:15	12/31/12 16:32	
delta-BHC	ND		1.6	0.39	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Dieldrin	ND		1.6	0.20	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Endosulfan I	ND		1.6	0.17	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Endosulfan II	ND		1.6	0.28	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Endosulfan sulfate	ND		1.6	0.27	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Endrin	ND		1.6	0.29	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Endrin aldehyde	ND		1.6	0.16	ug/Kg		12/24/12 11:15	12/31/12 16:32	
gamma-BHC (Lindane)	ND		1.6	0.45	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Heptachlor	ND		1.6	0.21	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Heptachlor epoxide	ND		1.6	0.41	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Methoxychlor	ND		3.2	0.43	ug/Kg		12/24/12 11:15	12/31/12 16:32	
Toxaphene	ND		64	15	ug/Kg		12/24/12 11:15	12/31/12 16:32	

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	94		63 - 124	12/24/12 11:15	12/31/12 16:32	1
Tetrachloro-m-xylene	86		59 - 115	12/24/12 11:15	12/31/12 16:32	1

Lab Sample ID: LCS 280-153611/2-A

**Matrix: Solid** 

Analysis Batch: 154261

Client Sample ID	Lab Control	Sample
	B	T - 4 - 1/8 L A

**Prep Type: Total/NA** Prep Batch: 153611

Analysis Batch: 154261							Prep Batch: 153611
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	16.4	16.1		ug/Kg		98	54 - 130
4,4'-DDE	16.4	15.7		ug/Kg		96	58 - 121
4,4'-DDT	16.4	16.5		ug/Kg		101	57 <sub>-</sub> 133
Aldrin	16.4	14.2		ug/Kg		86	63 _ 115
alpha-BHC	16.4	14.1		ug/Kg		86	64 - 116
beta-BHC	16.4	14.5		ug/Kg		89	67 - 115
delta-BHC	16.4	15.2		ug/Kg		93	67 - 115
Dieldrin	16.4	16.2		ug/Kg		99	65 - 127
Endosulfan I	16.4	15.5		ug/Kg		94	65 - 118
Endosulfan II	16.4	16.0		ug/Kg		98	71 - 118
Endosulfan sulfate	16.4	15.8		ug/Kg		96	67 - 123
Endrin	16.4	18.2		ug/Kg		111	77 <sub>-</sub> 134
Endrin aldehyde	16.4	9.56		ug/Kg		58	47 - 115
gamma-BHC (Lindane)	16.4	14.5		ug/Kg		88	63 - 118
Heptachlor	16.4	14.1		ug/Kg		86	68 - 115
Methoxychlor	16.4	16.2		ug/Kg		99	67 - 130

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

# Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-153611/2-A

**Matrix: Solid** 

Analysis Batch: 154261

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 153611** 

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	94		63 - 124
Tetrachloro-m-xylene	85		59 - 115

Client Sample ID: SE-01 - (0-2)

67 - 130

Client Sample ID: SE-01 - (0-2)

Prep Type: Total/NA

Prep Type: Total/NA

**Prep Batch: 153611** 

**Matrix: Solid** 

Lab Sample ID: 280-37307-1 MS

Analysis Batch: 154261

-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	ND		16.0	ND	D	ug/Kg	<del>-</del>		54 - 130	
4,4'-DDE	ND		16.0	15.2	D	ug/Kg	₽	95	58 <sub>-</sub> 121	
4,4'-DDT	ND		16.0	15.5	D	ug/Kg	₽	97	57 <sub>-</sub> 133	
Aldrin	ND		16.0	15.4	D	ug/Kg	\$	96	63 _ 115	
alpha-BHC	ND		16.0	16.0	D	ug/Kg	₽	100	64 - 116	
beta-BHC	ND		16.0	16.5	D	ug/Kg	₩	103	67 <sub>-</sub> 115	
delta-BHC	ND		16.0	16.3	D	ug/Kg	₽	102	67 - 115	
Dieldrin	ND		16.0	15.1	D	ug/Kg	₽	94	65 _ 127	
Endosulfan I	ND		16.0	14.6	D	ug/Kg	₽	91	65 _ 118	
Endosulfan II	ND		16.0	14.4	D	ug/Kg	₽	90	71 - 118	
Endosulfan sulfate	ND		16.0	14.4	D	ug/Kg	₽	90	67 _ 123	
Endrin	ND		16.0	17.4	D	ug/Kg	₽	109	77 _ 134	
Endrin aldehyde	ND		16.0	11.2	D	ug/Kg	\$	70	47 <sub>-</sub> 115	
gamma-BHC (Lindane)	ND		16.0	15.8	D	ug/Kg	₩	99	63 _ 118	
Heptachlor	ND		16.0	18.5	D	ug/Kg	₽	116	68 - 115	

16.0

14.9 JD

ug/Kg

MS MS

ND

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	89	D	63 - 124
Tetrachloro-m-xvlene	91	D	59 <sub>-</sub> 115

Lab Sample ID: 280-37307-1 MSD

**Matrix: Solid** 

Methoxychlor

Analysis Batch: 154261									Prep I	3atch: 1	53611
•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	ND		16.9	ND	D	ug/Kg	\$		54 - 130	NC	20
4,4'-DDE	ND		16.9	16.7	D	ug/Kg	₽	98	58 - 121	10	15
4,4'-DDT	ND		16.9	16.7	D	ug/Kg	₽	99	57 - 133	7	29
Aldrin	ND		16.9	16.9	D	ug/Kg	\$	100	63 - 115	9	50
alpha-BHC	ND		16.9	17.5	D	ug/Kg	₩	103	64 - 116	9	17
beta-BHC	ND		16.9	18.2	D	ug/Kg	₽	107	67 - 115	9	17
delta-BHC	ND		16.9	17.9	D	ug/Kg	\$	106	67 - 115	10	19
Dieldrin	ND		16.9	16.5	D	ug/Kg	₩	97	65 - 127	9	25
Endosulfan I	ND		16.9	16.0	D	ug/Kg	₩	95	65 - 118	9	26
Endosulfan II	ND		16.9	15.6	D	ug/Kg	₽	92	71 - 118	8	20
Endosulfan sulfate	ND		16.9	15.5	D	ug/Kg	☼	91	67 - 123	7	22
Endrin	ND		16.9	19.2	D	ug/Kg	₽	114	77 - 134	10	30
Endrin aldehyde	ND		16.9	11.7	D	ug/Kg	₩	69	47 - 115	4	29
gamma-BHC (Lindane)	ND		16.9	17.3	D	ug/Kg	₩	102	63 - 118	9	24

TestAmerica Denver

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

TestAmerica Job ID: 280-37307-2

# Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-37307-1 MSD

**Matrix: Solid** 

Analysis Batch: 154261

Client Sample ID: SE-01 - (0-2)

**Prep Type: Total/NA** 

Prep Batch: 153611

		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Heptachlor	ND		16.9	20.3	D	ug/Kg	*	120	68 - 115	9	18
١	Methoxychlor	ND		16.9	16.1	JD	ug/Kg	₩	95	67 - 130	8	23
ı												

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	88	D	63 - 124
Tetrachloro-m-xylene	96	D	59 <sub>-</sub> 115

Lab Sample ID: MB 280-154525/1-A **Client Sample ID: Method Blank** 

**Matrix: Solid** 

Analysis Batch: 154637

Prep Type: Total/NA

**Prep Batch: 154525** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7	0.54	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
4,4'-DDE	ND		1.7	0.23	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
4,4'-DDT	ND		1.7	0.58	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Aldrin	ND		1.7	0.25	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
alpha-BHC	ND		1.7	0.21	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
beta-BHC	ND		1.7	0.66	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Chlordane (n.o.s.)	ND		1.7	0.21	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
delta-BHC	ND		1.7	0.40	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Dieldrin	ND		1.7	0.21	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Endosulfan I	ND		1.7	0.17	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Endosulfan II	ND		1.7	0.28	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Endosulfan sulfate	ND		1.7	0.27	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Endrin	ND		1.7	0.30	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Endrin aldehyde	ND		1.7	0.17	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
gamma-BHC (Lindane)	ND		1.7	0.46	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Heptachlor	ND		1.7	0.21	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Heptachlor epoxide	ND		1.7	0.42	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Methoxychlor	ND		3.3	0.44	ug/Kg		01/03/13 20:35	01/04/13 17:00	1
Toxaphene	ND		66	16	ug/Kg		01/03/13 20:35	01/04/13 17:00	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		63 - 124	01/03/13 20:35	01/04/13 17:00	1
Tetrachloro-m-xylene	89		59 - 115	01/03/13 20:35	01/04/13 17:00	1

Lab Sample ID: LCS 280-154525/2-A

Matrix: Solid

Analysis Batch: 154637

Client Sample ID: Lab	Control Sample
Prep	Type: Total/NA
_	

**Prep Batch: 154525** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	15.4	16.5		ug/Kg		107	54 - 130	
4,4'-DDE	15.4	15.2		ug/Kg		99	58 <sub>-</sub> 121	
4,4'-DDT	15.4	15.3		ug/Kg		99	57 - 133	
Aldrin	15.4	15.2		ug/Kg		99	63 - 115	
alpha-BHC	15.4	15.3		ug/Kg		100	64 - 116	
beta-BHC	15.4	15.5		ug/Kg		101	67 - 115	
delta-BHC	15.4	15.7		ug/Kg		102	67 <sub>-</sub> 115	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-154525/2-A

**Matrix: Solid** 

Analysis Batch: 154637

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 154525** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Dieldrin	15.4	15.2		ug/Kg		99	65 - 127	
Endosulfan I	15.4	14.7		ug/Kg		96	65 _ 118	
Endosulfan II	15.4	15.3		ug/Kg		100	71 - 118	
Endosulfan sulfate	15.4	15.0		ug/Kg		97	67 - 123	
Endrin	15.4	17.1		ug/Kg		111	77 _ 134	
Endrin aldehyde	15.4	13.6		ug/Kg		88	47 - 115	
gamma-BHC (Lindane)	15.4	15.5		ug/Kg		100	63 _ 118	
Heptachlor	15.4	15.1		ug/Kg		98	68 _ 115	
Methoxychlor	15.4	15.6		ug/Kg		101	67 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	105		63 - 124
Tetrachloro-m-xvlene	96		59 <sub>-</sub> 115

Lab Sample ID: 280-37307-2 MS

Matrix: Solid

Client Sample ID: SE-01 - (24-26) **Prep Type: Total/NA** 

Analysis Batch: 154637	Sample	Sample	Spike	MS	MS				Prep Batch: 15452 %Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	ND		19.8	18.2	-	ug/Kg	<del></del>	92	54 - 130
4,4'-DDE	ND		19.8	17.6		ug/Kg	₽	89	58 - 121
4,4'-DDT	ND		19.8	17.9		ug/Kg	₽	90	57 <sub>-</sub> 133
Aldrin	ND		19.8	17.5		ug/Kg	\$	89	63 - 115
alpha-BHC	ND		19.8	17.8		ug/Kg	₽	90	64 - 116
beta-BHC	ND		19.8	18.0		ug/Kg	₽	91	67 _ 115
delta-BHC	ND		19.8	17.4		ug/Kg	₽	88	67 <sub>-</sub> 115
Dieldrin	ND		19.8	17.1		ug/Kg	₩	86	65 _ 127
Endosulfan I	ND		19.8	16.3		ug/Kg	₽	82	65 - 118
Endosulfan II	ND		19.8	16.6		ug/Kg	₽	84	71 <sub>-</sub> 118
Endosulfan sulfate	ND		19.8	16.3		ug/Kg	₽	82	67 - 123
Endrin	ND		19.8	19.8		ug/Kg	₽	100	77 <sub>-</sub> 134
Endrin aldehyde	ND		19.8	9.93		ug/Kg	*	50	47 - 115
gamma-BHC (Lindane)	ND		19.8	18.3		ug/Kg	₽	92	63 - 118
Heptachlor	ND		19.8	16.3		ug/Kg	₽	82	68 - 115
Methoxychlor	ND		19.8	17.5		ug/Kg	₽	88	67 - 130

MS MS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	86		63 - 124
Tetrachloro-m-xylene	86		59 - 115

Lab Sample ID: 280-37307-2 MSD

**Matrix: Solid** 

Analysis Batch: 154637

Client Sample ID: SE-01 - (24-26)	
Prep Type: Total/NA	
Prep Batch: 154525	

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	ND		19.7	18.6		ug/Kg	<del>\</del>	94	54 - 130	2	20
4,4'-DDE	ND		19.7	17.8		ug/Kg	₩	90	58 - 121	1	15
4,4'-DDT	ND		19.7	18.7		ug/Kg	₩	95	57 - 133	4	29

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-37307-2 MSD

**Matrix: Solid** 

Analysis Batch: 154637

Client Sample ID: SE-01 - (24-26)

Prep Type: Total/NA

**Prep Batch: 154525** 

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aldrin	ND		19.7	17.5		ug/Kg	<del>\</del>	89	63 - 115	0	50
alpha-BHC	ND		19.7	17.8		ug/Kg	₽	90	64 - 116	0	17
beta-BHC	ND		19.7	17.7		ug/Kg	₽	90	67 - 115	2	17
delta-BHC	ND		19.7	17.8		ug/Kg	₽	91	67 - 115	2	19
Dieldrin	ND		19.7	17.4		ug/Kg	₽	88	65 - 127	2	25
Endosulfan I	ND		19.7	16.5		ug/Kg	₽	84	65 - 118	1	26
Endosulfan II	ND		19.7	17.3		ug/Kg	₽	88	71 - 118	4	20
Endosulfan sulfate	ND		19.7	17.0		ug/Kg	₩	86	67 - 123	4	22
Endrin	ND		19.7	20.1		ug/Kg	₽	102	77 - 134	1	30
Endrin aldehyde	ND		19.7	10.7		ug/Kg	₽	54	47 - 115	7	29
gamma-BHC (Lindane)	ND		19.7	18.1		ug/Kg	₽	92	63 - 118	1	24
Heptachlor	ND		19.7	16.9		ug/Kg	₽	86	68 - 115	4	18
Methoxychlor	ND		19.7	18.6		ug/Kg	\$	94	67 - 130	6	23

MSD MSD Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 63 - 124 106 59 - 115 Tetrachloro-m-xylene 88

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-153611/1-A

**Matrix: Solid** 

Analysis Batch: 154408

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 153611** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		32	4.9	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1221	ND		45	15	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1232	ND		32	4.9	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1242	ND		32	8.8	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1248	ND		32	5.4	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1254	ND		32	5.3	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1260	ND		32	2.5	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1262	ND		32	11	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
PCB-1268	ND		32	3.8	ug/Kg		12/24/12 11:15	01/02/13 16:52	1
Polychlorinated biphenyls, Total	ND		32	2.5	ug/Kg		12/24/12 11:15	01/02/13 16:52	1

мв мв

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	83	59 - 130	12/24/12 11:15	01/02/13 16:52	1
Tetrachloro-m-xylene	93	53 - 128	12/24/12 11:15	01/02/13 16:52	1

Lab Sample ID: LCS 280-153611/4-A

**Matrix: Solid** 

Analysis Batch: 154408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

**Prep Batch: 153611** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	 62.1	58.7		ug/Kg		95	54 - 132	
PCB-1260	62.1	54.1		ug/Kg		87	62 _ 129	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

# Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 280-153611/4-A

**Matrix: Solid** 

**Analysis Batch: 154408** 

Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Prep Batch: 153611** 

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	84		59 - 130
Tetrachloro-m-xylene	94		53 - 128

Lab Sample ID: 280-37307-1 MS Client Sample ID: SE-01 - (0-2)

**Matrix: Solid** 

Analysis Batch: 154408

Prep Type: Total/NA

**Prep Batch: 153611** 

Sample Sample Spike MS MS %Rec. Qualifier Added Result Result Qualifier Unit D %Rec Limits

Analyte ₩ PCB-1016 ND 68.2 50.3 74 54 - 132 ug/Kg Ö PCB-1260 ND 68.2 34.4 F ug/Kg 50 62 \_ 129

MS MS

Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 43 X 59 - 130 82 53 - 128 Tetrachloro-m-xylene

Lab Sample ID: 280-37307-1 MSD Client Sample ID: SE-01 - (0-2)

**Matrix: Solid** 

Analysis Batch: 154408

Prep Type: Total/NA

**Prep Batch: 153611** 

Spike RPD Sample Sample MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 77 PCB-1016 ND 67.8 50.0 ug/Kg 54 - 132 36 PCB-1260 ND 67.8 33.3 JF ug/Kg 49 62 - 129 3 44

MSD MSD

Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 42 X 59 - 130 81 53 - 128 Tetrachloro-m-xylene

Lab Sample ID: MB 280-154525/1-A Client Sample ID: Method Blank

**Matrix: Solid** 

Analysis Batch: 154966

Polychlorinated biphenyls, Total

Prep Type: Total/NA

01/07/13 16:43

Prep Batch: 154525

01/03/13 20:35

MDL Unit Dil Fac Analyte Result Qualifier RL Prepared Analyzed PCB-1016 ND 33 5.0 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1221 ND 46 01/03/13 20:35 01/07/13 16:43 15 ug/Kg PCB-1232 ND 33 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1242 ND 33 9.0 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1248 ND 33 5.5 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1254 ND 33 5.4 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1260 ND 33 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1262 ND 33 ug/Kg 01/03/13 20:35 01/07/13 16:43 PCB-1268 ND 33 3.9 01/03/13 20:35 01/07/13 16:43 ug/Kg

MB MB

ND

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		59 - 130	01/03/13 20:35	01/07/13 16:43	1
Tetrachloro-m-xvlene	90		53 <sub>-</sub> 128	01/03/13 20:35	01/07/13 16:43	1

33

2.6 ug/Kg

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: L	CS 280-154525/3-A
Matrix: Solid	

Analysis Batch: 154966

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA **Prep Batch: 154525** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	60.6	58.2		ug/Kg		96	54 - 132	
PCB-1260	60.6	60.7		ug/Kg		100	62 - 129	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	87		59 - 130
Tetrachloro-m-xylene	91		53 - 128

Client Sample ID: SE-01 - (24-26)

Prep Type: Total/NA **Prep Batch: 154525** 

Lab Sample ID: 280-37307-2 MS **Matrix: Solid** 

Analysis Batch: 154966

Analyte PCB-1016 PCB-1260

Sample	Sample	Spike	MS	MS				%Rec.	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
ND		76.5	80.9	-	ug/Kg	<del>-</del>	106	54 - 132	
ND		76.5	70.2		ug/Kg	₩	92	62 - 129	

MS MS %Recovery Qualifier

Surrogate Limits DCB Decachlorobiphenyl 82 59 - 130 Tetrachloro-m-xylene 88 53 - 128

Client Sample ID: SE-01 - (24-26)

Prep Type: Total/NA **Prep Batch: 154525** 

Analysis Batch: 154966

**Matrix: Solid** 

Lab Sample ID: 280-37307-2 MSD

Sample Sample MSD MSD Spike RPD %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit PCB-1016 79.5 ug/Kg ₩ 36 ND 84.4 106 54 - 132 4 PCB-1260 ND ₩ 79.5 77.7 ug/Kg 98 62 - 129 10 44

MSD MSD Surrogate %Recovery Qualifier Limits 59 - 130 DCB Decachlorobiphenyl 83 88 Tetrachloro-m-xylene 53 - 128

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-153862/1-A

**Matrix: Solid** 

Analysis Batch: 154361

Client Sample ID: Method Bla	ink
Prep Type: Total/	NA

**Prep Batch: 153862** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		79	14	ug/Kg		12/27/12 08:40	01/02/13 14:16	1
Dinoseb	ND		12	1.4	ug/Kg		12/27/12 08:40	01/02/13 14:16	1
2,4,5-T	ND		20	2.3	ug/Kg		12/27/12 08:40	01/02/13 14:16	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg		12/27/12 08:40	01/02/13 14:16	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	121	X	31 - 105	12/27/12 08:40	01/02/13 14:16	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

Analysis Batch: 154361

**Matrix: Solid** 

**Matrix: Solid** 

Lab Sample ID: LCS 280-153862/2-A

Method: 8151A - Herbicides (GC) (Continued)

Client Sample ID: Lab Control Sample

 Prep Type: Total/NA
Prep Batch: 153862

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,4-D	88.0	122	*	ug/Kg		138	32 - 115	
Dinoseb	88.0	13.6		ug/Kg		15	5 - 166	
2,4,5-T	91.8	100		ug/Kg		109	24 - 115	
Silvex (2,4,5-TP)	88.0	111		ug/Kg		126	53 _ 134	

LCS LCS %Recovery Qualifier Limits Surrogate 31 - 105 2,4-Dichlorophenylacetic acid 105

Client Sample ID: SE-01 - (0-2)

Prep Type: Total/NA

**Prep Batch: 153862** 

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
2,4-D	ND	*	91.1	97.5	JD	ug/Kg	₩	107	32 - 115
Dinoseb	ND		91.1	ND	D	ug/Kg	₽	0	5 - 166
2,4,5-T	ND		95.0	93.7	JD	ug/Kg	₽	99	24 - 115
Silvex (2,4,5-TP)	ND		91.1	87.1	JD	ug/Kg	₩	96	53 - 134

MS MS Limits %Recovery Qualifier Surrogate 2,4-Dichlorophenylacetic acid 63 D 31 - 105

Lab Sample ID: 280-37307-1 MSD

Lab Sample ID: 280-37307-1 MS

Analysis Batch: 154361

**Matrix: Solid** 

Analysis Batch: 154361

Client Sample ID: SE-01 - (0-2)

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 153633** 

Prep Type: Total/NA **Prep Batch: 153862** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4-D	ND	*	94.3	105	JD	ug/Kg	<del>\$</del>	112	32 - 115	8	40
Dinoseb	ND		94.3	ND	D	ug/Kg	₽	0	5 - 166	NC	50
2,4,5-T	ND		98.4	101	D	ug/Kg	₩	103	24 - 115	8	40
Silvex (2,4,5-TP)	ND		94.3	96.0	JD	ug/Kg	₽	102	53 - 134	10	40

MSD MSD Surrogate %Recovery Qualifier Limits 2,4-Dichlorophenylacetic acid 90 D 31 - 105

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-153633/1-A **Matrix: Solid** 

Analysis Batch: 154235

MB MB Qualifier Analyte Result RLMDL Unit Prepared Analyzed Dil Fac Barium ND 1000 12/28/12 18:52 76 ug/Kg 12/28/12 07:30 Cadmium ND 500 ug/Kg 12/28/12 07:30 12/28/12 18:52 Chromium ND 1500 ug/Kg 12/28/12 07:30 12/28/12 18:52 Lead ND 800 270 ug/Kg 12/28/12 07:30 12/28/12 18:52 Selenium ND 1300 860 ug/Kg 12/28/12 07:30 12/28/12 18:52 Silver ND 1000 160 ug/Kg 12/28/12 07:30 12/28/12 18:52

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Analysis Batch: 154331

Analysis Batch: 154235

**Matrix: Solid** 

**Matrix: Solid** 

Lab Sample ID: MB 280-153633/1-A

Lab Sample ID: LCS 280-153633/2-A

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 153633** 

Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed 2000 Arsenic ND 660 ug/Kg 12/28/12 07:30 12/31/12 15:20

> Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Prep Batch: 153633** 

Prep Type: Total/NA **Prep Batch: 153633** 

**Prep Batch: 153751** 

Prep Type: Total/NA

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Barium 200000 204000 ug/Kg 102 87 - 112 Cadmium 10000 11000 87 - 110 ug/Kg 110 Chromium 20000 21700 ug/Kg 108 84 - 114 Lead 50000 52100 104 86 - 110 ug/Kg Selenium 200000 209000 ug/Kg 104 83 - 110 5000 5250 105 Silver ug/Kg 87 - 114

Lab Sample ID: LCS 280-153633/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

Analysis Batch: 154331

Analysis Batch: 154008

Spike LCS LCS

MB MB

%Rec. Analyte Added Result Qualifier Unit %Rec Limits Arsenic 100000 98300 98 85 - 110 ug/Kg

Lab Sample ID: MB 280-153751/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

MB MB RL Analyte Result Qualifier MDL Unit D Prepared Analyzed Dil Fac Arsenic ND 15 4.4 ug/L 12/27/12 07:30 12/28/12 03:52 Barium 2.09 10 12/27/12 07:30 12/28/12 03:52 0.58 ug/L Cadmium ND 5.0 0.45 ug/L 12/27/12 07:30 12/28/12 03:52 Chromium ND 10 0.66 ug/L 12/27/12 07:30 12/28/12 03:52 Lead ND 9.0 2.6 ug/L 12/27/12 07:30 12/28/12 03:52 Selenium ND 15 4.9 ug/L 12/27/12 07:30 12/28/12 03:52 ND 10 Silver 0.93 ug/L 12/27/12 07:30 12/28/12 03:52

Lab Sample ID: LCS 280-153751/2-A Client Sample ID: Lab Control Sample

**Matrix: Water** 

Analysis Batch: 154008							Prep Ba	tch: 153751
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1000	1030		ug/L		103	88 - 110	
Barium	2000	2120		ug/L		106	90 _ 112	
Cadmium	100	107		ug/L		107	88 - 111	
Chromium	200	203		ug/L		102	90 _ 113	
Lead	500	513		ug/L		103	89 _ 110	
Selenium	2000	1960		ug/L		98	85 - 112	
Silver	50.0	51.6		ug/L		103	86 - 115	

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Client: RMC Consultants Inc Project/Site: US 6 at I-25

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# Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-37307-4 MS

**Matrix: Water** 

Analysis Batch: 154008

Client Sample ID: SE-01 - GW
Prep Type: Total/NA

Prep Type: Total/NA
Prep Batch: 153751

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	ND		1000	1050		ug/L		105	84 - 124	
Barium	250	В	2000	2380		ug/L		107	85 - 120	
Cadmium	0.99	J	100	108		ug/L		107	82 _ 119	
Chromium	7.9	J	200	212		ug/L		102	73 - 135	
Lead	12		500	509		ug/L		99	89 - 121	
Selenium	11	J	2000	1970		ug/L		98	71 - 140	
Silver	ND		50.0	52.8		ug/L		106	75 - 141	

Lab Sample ID: 280-37307-4 MSD

**Matrix: Water** 

Analysis Batch: 154008

Client Sample ID: SE-01 - GW Prep Type: Total/NA

Prep Batch: 153751

Allalysis Balcii. 134000									Fiebi	Dalcii. I	33 <i>1</i> 3 1
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	ND		1000	1030		ug/L		103	84 - 124	2	20
Barium	250	В	2000	2340		ug/L		105	85 - 120	2	20
Cadmium	0.99	J	100	106		ug/L		105	82 - 119	2	20
Chromium	7.9	J	200	207		ug/L		100	73 - 135	2	20
Lead	12		500	499		ug/L		97	89 - 121	2	20
Selenium	11	J	2000	1930		ug/L		96	71 - 140	2	20
Silver	ND		50.0	51.3		ug/L		103	75 - 141	3	20

Lab Sample ID: MB 280-153635/1-A

Matrix: Water

Analysis Batch: 154339

Client Sample ID: Method Blank Prep Type: Total Recoverable

Prep Batch: 153635

	MB I	MB							
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 12:00	12/31/12 20:30	1
Barium	ND		10	0.58	ug/L		12/28/12 12:00	12/31/12 20:30	1
Cadmium	ND		5.0	0.45	ug/L		12/28/12 12:00	12/31/12 20:30	1
Chromium	ND		10	0.66	ug/L		12/28/12 12:00	12/31/12 20:30	1
Lead	ND		9.0	2.6	ug/L		12/28/12 12:00	12/31/12 20:30	1
Selenium	5.20	J	15	4.9	ug/L		12/28/12 12:00	12/31/12 20:30	1
Silver	ND		10	0.93	ug/L		12/28/12 12:00	12/31/12 20:30	1

Lab Sample ID: LCS 280-153635/2-A

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 153635

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1000	1050		ug/L		105	88 - 110	
Barium	2000	2080		ug/L		104	90 - 112	
Cadmium	100	109		ug/L		109	88 - 111	
Chromium	200	206		ug/L		103	90 - 113	
Lead	500	522		ug/L		104	89 - 110	
Selenium	2000	2100		ug/L		105	85 - 112	
Silver	50.0	53.6		ug/L		107	86 - 115	

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Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-37307-4 MS

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: SE-01 - GW	
Pren Tyne: Dissolved	

**Prep Batch: 153635** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	ND		1000	1070		ug/L		107	84 - 124	
Barium	170		2000	2250		ug/L		104	85 - 120	
Cadmium	0.48	J	100	109		ug/L		108	82 - 119	
Chromium	ND		200	206		ug/L		103	73 - 135	
Lead	ND		500	505		ug/L		101	89 - 121	
Selenium	11	JB	2000	2070		ug/L		103	71 - 140	
Silver	ND		50.0	54.2		ug/L		108	75 - 141	

Lab Sample ID: 280-37307-4 MSD

**Matrix: Water** 

**Analysis Batch: 154339** 

Client Sample ID: SE-01 - GW	Client Sample	ID: SE-01 - GW
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**Prep Type: Dissolved Prep Batch: 153635** 

RPD Limit Limits RPD 84 - 124 2 20 85 - 120 20 82 - 119 20 73 - 135 20

Added Result Qualifier Analyte Result Qualifier %Rec Unit D Arsenic ND 1000 1040 ug/L 104 2000 Barium 170 2230 ug/L 103 Cadmium 100 0.48 107 ug/L 107 Chromium 200 203 101 ND ug/L ND500 499 100 89 - 121 20 Lead ug/L 2000 2050 102 Selenium 11 JB ug/L 71 - 140 20 Silver ND 50.0 53.0 ug/L 106 2 75 - 141 20

Spike

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-153532/1-A

**Matrix: Water** 

Analysis Batch: 154037

Sample Sample

Result Qualifier RL MDL Unit Analyte Prepared Analyzed Dil Fac 0.20 Mercury 0.0290 J 0.027 ug/L 12/27/12 12:00 12/27/12 17:55

Lab Sample ID: LCS 280-153532/2-A

**Matrix: Water** 

Analyte

Mercury

Analysis Batch: 154037

**Prep Batch: 153532** Spike LCS LCS %Rec. Added Result Qualifier Unit %Rec Limits

ug/L

4.81

MSD MSD

Lab Sample ID: MB 280-154019/1-A

**Matrix: Water** 

Analysis Batch: 154241

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Prep Batch: 153532** 

Prep Type: Total/NA

Prep Type: Total/NA Prep Batch: 154019

мв мв

Analyte Result Qualifier RL MDL Unit Prepared Analyzed 0.20 12/28/12 11:15 Mercury ND 0.027 ug/L 12/28/12 15:15

5.00

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Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 280-154019/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 154241 **Prep Batch: 154019** Spike LCS LCS

Added Result Qualifier Limits Analyte Unit D %Rec 5.00 84 - 120 Mercury 4.98 ug/L 100

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-153674/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 153837 Prep Batch: 153674 мв мв

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 17 5.5 ug/Kg 12/26/12 11:35 12/26/12 15:13 Mercury

Lab Sample ID: LCS 280-153674/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 153837 **Prep Batch: 153674** 

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Mercury 417 420 ug/Kg 101 87 - 111

Method: 1664A - Oil & Grease (HEM)

Lab Sample ID: MB 280-154288/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154310 Prep Batch: 154288 мв мв

Analyte Result Qualifier RL MDL Unit Dil Fac Prepared Analyzed 5.0 HEM (Oil & Grease) 1.4 mg/L 12/31/12 12:38 12/31/12 15:42 ND

Lab Sample ID: LCS 280-154288/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154310 Prep Batch: 154288 Spike LCS LCS %Rec. hahhΔ Analyte Result Qualifier Limits Unit %Rec HEM (Oil & Grease) 40.0 38.1 mg/L 95 81 - 107

Lab Sample ID: LCSD 280-154288/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 154310 Prep Batch: 154288

LCSD LCSD RPD Spike %Rec. Added Result Qualifier Unit D %Rec Limits RPD Limit HEM (Oil & Grease) 40.0 36.6 mg/L 92 81 - 107 22

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**GC/MS VOA** 

**Prep Batch: 153850** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	5030B	
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	5030B	
LCS 280-153850/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-153850/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 153854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	8260B	153850
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	8260B	153850
LCS 280-153850/2-A	Lab Control Sample	Total/NA	Solid	8260B	153850
MB 280-153850/1-A	Method Blank	Total/NA	Solid	8260B	153850

Analysis Batch: 153872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	8260B	153919
LCS 280-153919/2-A	Lab Control Sample	Total/NA	Solid	8260B	153919
MB 280-153919/1-A	Method Blank	Total/NA	Solid	8260B	153919

**Prep Batch: 153919** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	5030B	
LCS 280-153919/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-153919/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 153993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	8260B	
LCS 280-153993/23	Lab Control Sample	Total/NA	Water	8260B	
MB 280-153993/6	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

**Prep Batch: 153760** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	3520C	
LCS 280-153760/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 280-153760/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 154290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	8270C	153760
LCS 280-153760/2-A	Lab Control Sample	Total/NA	Water	8270C	153760
MB 280-153760/1-A	Method Blank	Total/NA	Water	8270C	153760

**GC Semi VOA** 

**Prep Batch: 153611** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	3546	
280-37307-1 MS	SE-01 - (0-2)	Total/NA	Solid	3546	

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# GC Semi VOA (Continued)

# Prep Batch: 153611 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1 MS	SE-01 - (0-2)	Total/NA	Solid	3546	
280-37307-1 MSD	SE-01 - (0-2)	Total/NA	Solid	3546	
280-37307-1 MSD	SE-01 - (0-2)	Total/NA	Solid	3546	
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	3546	
LCS 280-153611/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-153611/4-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-153611/1-A	Method Blank	Total/NA	Solid	3546	

# **Prep Batch: 153862**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	8151A	
280-37307-1 MS	SE-01 - (0-2)	Total/NA	Solid	8151A	
280-37307-1 MSD	SE-01 - (0-2)	Total/NA	Solid	8151A	
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	8151A	
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	8151A	
LCS 280-153862/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 280-153862/1-A	Method Blank	Total/NA	Solid	8151A	

# Analysis Batch: 154261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	8081A	153611
280-37307-1 MS	SE-01 - (0-2)	Total/NA	Solid	8081A	153611
280-37307-1 MSD	SE-01 - (0-2)	Total/NA	Solid	8081A	153611
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	8081A	153611
LCS 280-153611/2-A	Lab Control Sample	Total/NA	Solid	8081A	153611
MB 280-153611/1-A	Method Blank	Total/NA	Solid	8081A	153611

# Analysis Batch: 154361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	8151A	153862
280-37307-1 MS	SE-01 - (0-2)	Total/NA	Solid	8151A	153862
280-37307-1 MSD	SE-01 - (0-2)	Total/NA	Solid	8151A	153862
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	8151A	153862
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	8151A	153862
LCS 280-153862/2-A	Lab Control Sample	Total/NA	Solid	8151A	153862
MB 280-153862/1-A	Method Blank	Total/NA	Solid	8151A	153862

### Analysis Batch: 154408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	8082	153611
280-37307-1 MS	SE-01 - (0-2)	Total/NA	Solid	8082	153611
280-37307-1 MSD	SE-01 - (0-2)	Total/NA	Solid	8082	153611
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	8082	153611
LCS 280-153611/4-A	Lab Control Sample	Total/NA	Solid	8082	153611
MB 280-153611/1-A	Method Blank	Total/NA	Solid	8082	153611

# **Prep Batch: 154525**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	3546	
280-37307-2 MS	SE-01 - (24-26)	Total/NA	Solid	3546	
280-37307-2 MS	SE-01 - (24-26)	Total/NA	Solid	3546	

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GC Semi VOA (Continued)

Pren	Batch:	154525	(Continued)
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
280-37307-2 MSD	SE-01 - (24-26)	Total/NA	Solid	3546	_
280-37307-2 MSD	SE-01 - (24-26)	Total/NA	Solid	3546	
LCS 280-154525/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-154525/3-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-154525/1-A	Method Blank	Total/NA	Solid	3546	

# Analysis Batch: 154637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	8081A	154525
280-37307-2 MS	SE-01 - (24-26)	Total/NA	Solid	8081A	154525
280-37307-2 MSD	SE-01 - (24-26)	Total/NA	Solid	8081A	154525
LCS 280-154525/2-A	Lab Control Sample	Total/NA	Solid	8081A	154525
MB 280-154525/1-A	Method Blank	Total/NA	Solid	8081A	154525

# Analysis Batch: 154966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	8082	154525
280-37307-2 MS	SE-01 - (24-26)	Total/NA	Solid	8082	154525
280-37307-2 MSD	SE-01 - (24-26)	Total/NA	Solid	8082	154525
LCS 280-154525/3-A	Lab Control Sample	Total/NA	Solid	8082	154525
MB 280-154525/1-A	Method Blank	Total/NA	Solid	8082	154525

### **Metals**

### **Prep Batch: 153532**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	7470A	
LCS 280-153532/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-153532/1-A	Method Blank	Total/NA	Water	7470A	

# **Prep Batch: 153633**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	3050B	
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	3050B	
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	3050B	
LCS 280-153633/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-153633/1-A	Method Blank	Total/NA	Solid	3050B	

# **Prep Batch: 153635**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Dissolved	Water	3005A	
280-37307-4 MS	SE-01 - GW	Dissolved	Water	3005A	
280-37307-4 MSD	SE-01 - GW	Dissolved	Water	3005A	
LCS 280-153635/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 280-153635/1-A	Method Blank	Total Recoverable	Water	3005A	

# **Prep Batch: 153674**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	7471A	
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	7471A	

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# **Metals (Continued)**

# Prep Batch: 153674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	7471A	
LCS 280-153674/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 280-153674/1-A	Method Blank	Total/NA	Solid	7471A	

# **Prep Batch: 153751**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	3010A	
280-37307-4 MS	SE-01 - GW	Total/NA	Water	3010A	
280-37307-4 MSD	SE-01 - GW	Total/NA	Water	3010A	
LCS 280-153751/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-153751/1-A	Method Blank	Total/NA	Water	3010A	

# Analysis Batch: 153837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	7471A	153674
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	7471A	153674
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	7471A	153674
LCS 280-153674/2-A	Lab Control Sample	Total/NA	Solid	7471A	153674
MB 280-153674/1-A	Method Blank	Total/NA	Solid	7471A	153674

### Analysis Batch: 154008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	6010B	153751
280-37307-4 MS	SE-01 - GW	Total/NA	Water	6010B	153751
280-37307-4 MSD	SE-01 - GW	Total/NA	Water	6010B	153751
LCS 280-153751/2-A	Lab Control Sample	Total/NA	Water	6010B	153751
MB 280-153751/1-A	Method Blank	Total/NA	Water	6010B	153751

# **Prep Batch: 154019**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Dissolved	Water	7470A	
LCS 280-154019/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-154019/1-A	Method Blank	Total/NA	Water	7470A	

# Analysis Batch: 154037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	7470A	153532
LCS 280-153532/2-A	Lab Control Sample	Total/NA	Water	7470A	153532
MB 280-153532/1-A	Method Blank	Total/NA	Water	7470A	153532

# Analysis Batch: 154235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	6010B	153633
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	6010B	153633
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	6010B	153633
LCS 280-153633/2-A	Lab Control Sample	Total/NA	Solid	6010B	153633
MB 280-153633/1-A	Method Blank	Total/NA	Solid	6010B	153633

### Analysis Batch: 154241

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
	280-37307-4	SE-01 - GW	Dissolved	Water	7470A	154019	

TestAmerica Denver

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# **QC Association Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-2

2

**Metals (Continued)** 

<b>Analysis</b>	Batch: 154241	(Continued)
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	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	LCS 280-154019/2-A	Lab Control Sample	Total/NA	Water	7470A	154019
١	MB 280-154019/1-A	Method Blank	Total/NA	Water	7470A	154019

# Analysis Batch: 154331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	6010B	153633
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	6010B	153633
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	6010B	153633
LCS 280-153633/2-A	Lab Control Sample	Total/NA	Solid	6010B	153633
MB 280-153633/1-A	Method Blank	Total/NA	Solid	6010B	153633

# Analysis Batch: 154339

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
SE-01 - GW	Dissolved	Water	6010B	153635
SE-01 - GW	Dissolved	Water	6010B	153635
SE-01 - GW	Dissolved	Water	6010B	153635
Lab Control Sample	Total Recoverable	Water	6010B	153635
Method Blank	Total Recoverable	Water	6010B	153635
	SE-01 - GW SE-01 - GW SE-01 - GW Lab Control Sample	SE-01 - GW Dissolved SE-01 - GW Dissolved SE-01 - GW Dissolved Lab Control Sample Total Recoverable	SE-01 - GW         Dissolved         Water           SE-01 - GW         Dissolved         Water           SE-01 - GW         Dissolved         Water           Lab Control Sample         Total Recoverable         Water	SE-01 - GW         Dissolved         Water         6010B           SE-01 - GW         Dissolved         Water         6010B           SE-01 - GW         Dissolved         Water         6010B           Lab Control Sample         Total Recoverable         Water         6010B

# **General Chemistry**

# Analysis Batch: 153758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-1	SE-01 - (0-2)	Total/NA	Solid	Moisture	
280-37307-2	SE-01 - (24-26)	Total/NA	Solid	Moisture	
280-37307-3	SE-01 - (34-36)	Total/NA	Solid	Moisture	

# Prep Batch: 154288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Pr	ep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	1664A	
LCS 280-154288/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 280-154288/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 280-154288/1-A	Method Blank	Total/NA	Water	1664A	

# Analysis Batch: 154310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	1664A	154288
LCS 280-154288/2-A	Lab Control Sample	Total/NA	Water	1664A	154288
LCSD 280-154288/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	154288
MB 280-154288/1-A	Method Blank	Total/NA	Water	1664A	154288

TestAmerica Denver

1/8/2013

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Date Collected: 12/20/12 20:20

Date Received: 12/21/12 14:12

Client Sample ID: SE-01 - (0-2)

Lab Sample ID: 280-37307-1

**Matrix: Solid** 

Percent Solids: 95.8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.108 g	5 mL	153850	12/26/12 16:00	LMH	TAL DEN
Total/NA	Analysis	8260B		1			153854	12/27/12 00:37	LMH	TAL DEN
Total/NA	Prep	3546			30.3 g	10000 uL	153611	12/24/12 11:15	SPF	TAL DEN
Total/NA	Analysis	8081A		5			154261	12/31/12 15:05	AMP	TAL DEN
Total/NA	Prep	8151A			51.5 g	10000 uL	153862	12/27/12 08:40	AA	TAL DEN
Total/NA	Analysis	8151A		5			154361	01/02/13 22:31	KJH	TAL DEN
Total/NA	Analysis	8082		1			154408	01/02/13 17:35	TDJ	TAL DEN
Total/NA	Prep	7471A			0.67 g	50 mL	153674	12/26/12 11:35	JM	TAL DEN
Total/NA	Analysis	7471A		1			153837	12/26/12 15:34	JM	TAL DEN
Total/NA	Prep	3050B			1.09 g	100 mL	153633	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:22	HEB	TAL DEN
Total/NA	Analysis	6010B		1			154331	12/31/12 15:02	HEB	TAL DEN
Total/NA	Analysis	Moisture		1			153758	12/26/12 10:50	AFB	TAL DEN

**Client Sample ID: SE-01 - (24-26)** Lab Sample ID: 280-37307-2

Date Collected: 12/20/12 21:08 Matrix: Solid Date Received: 12/21/12 14:12 Percent Solids: 82.2

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.134 g	5 mL	153850	12/26/12 16:00	LMH	TAL DEN
Total/NA	Analysis	8260B		1			153854	12/27/12 01:00	LMH	TAL DEN
Total/NA	Prep	8151A			50.9 g	10000 uL	153862	12/27/12 08:40	AA	TAL DEN
Total/NA	Analysis	8151A		1			154361	01/02/13 23:38	KJH	TAL DEN
Total/NA	Prep	3546			31.8 g	10000 uL	154525	01/03/13 20:35	NC	TAL DEN
Total/NA	Analysis	8081A		1			154637	01/04/13 17:51	AMP	TAL DEN
Total/NA	Analysis	8082		1			154966	01/07/13 17:30	TDJ	TAL DEN
Total/NA	Prep	7471A			0.66 g	50 mL	153674	12/26/12 11:35	JM	TAL DEN
Total/NA	Analysis	7471A		1			153837	12/26/12 15:36	JM	TAL DEN
Total/NA	Prep	3050B			1.15 g	100 mL	153633	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:25	HEB	TAL DEN
Total/NA	Analysis	6010B		1			154331	12/31/12 15:04	HEB	TAL DEN
Total/NA	Analysis	Moisture		1			153758	12/26/12 10:50	AFB	TAL DEN

**Client Sample ID: SE-01 - (34-36)** Lab Sample ID: 280-37307-3

Date Collected: 12/20/12 21:25 **Matrix: Solid** Date Received: 12/21/12 14:12 Percent Solids: 75.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.416 g	5 mL	153919	12/27/12 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			153872	12/27/12 15:55	AD	TAL DEN
Total/NA	Prep	3546			31.5 g	10000 uL	153611	12/24/12 11:15	SPF	TAL DEN
Total/NA	Analysis	8081A		5			154261	12/31/12 16:15	AMP	TAL DEN

TestAmerica Denver

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1/8/2013

### **Lab Chronicle**

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Date Collected: 12/20/12 21:25

Date Received: 12/21/12 14:12

Client Sample ID: SE-01 - (34-36)

TestAmerica Job ID: 280-37307-2

Lab Sample ID: 280-37307-3

Matrix: Solid

Percent Solids: 75.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8151A	<del></del>		52.7 g	10000 uL	153862	12/27/12 08:40	AA	TAL DEN
Total/NA	Analysis	8151A		1			154361	01/03/13 00:01	KJH	TAL DEN
Total/NA	Analysis	8082		1			154408	01/02/13 19:00	TDJ	TAL DEN
Total/NA	Prep	7471A			0.50 g	50 mL	153674	12/26/12 11:35	JM	TAL DEN
Total/NA	Analysis	7471A		1			153837	12/26/12 15:38	JM	TAL DEN
Total/NA	Prep	3050B			1.14 g	100 mL	153633	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:28	HEB	TAL DEN
Total/NA	Analysis	6010B		5			154331	12/31/12 15:07	HEB	TAL DEN
Total/NA	Analysis	Moisture		1			153758	12/26/12 10:50	AFB	TAL DEN

Client Sample ID: SE-01 - GW

Lab Sample ID: 280-37307-4

Date Collected: 12/20/12 23:00 Matrix: Water
Date Received: 12/21/12 14:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	153993	12/28/12 15:07	TW	TAL DE
Total/NA	Prep	3520C			1055.3 mL	1000 uL	153760	12/26/12 12:25	BMS	TAL DE
Total/NA	Analysis	8270C		1			154290	12/31/12 21:43	DCK	TAL DE
Total/NA	Prep	3010A			50 mL	50 mL	153751	12/27/12 07:30	JA	TAL DE
Total/NA	Analysis	6010B		1			154008	12/28/12 03:56	HEB	TAL DE
Total/NA	Prep	7470A			30 mL	30 mL	153532	12/27/12 12:00	JM	TAL DE
Total/NA	Analysis	7470A		1			154037	12/27/12 18:22	JM	TAL DE
Dissolved	Prep	7470A			30 mL	30 mL	154019	12/28/12 11:15	JM	TAL DE
Dissolved	Analysis	7470A		1			154241	12/28/12 15:26	JM	TAL DE
Dissolved	Prep	3005A			50 mL	50 mL	153635	12/28/12 12:00	RC	TAL DE
Dissolved	Analysis	6010B		1			154339	12/31/12 20:36	HEB	TAL DE
Total/NA	Prep	1664A			899 mL	1000 mL	154288	12/31/12 12:38	AFB	TAL DE
Total/NA	Analysis	1664A		1			154310	12/31/12 15:42	AFB	TAL DE

#### **Laboratory References:**

EMLab-OC = EMLab P&K Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626
TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TestAmerica Denver

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Report for:

**Donna Rydberg** TestAmerica-Denver 4955 Yarrow Street Arvada, CO 80002

Project: 280-37307-2 EML ID: 1009407 Regarding:

Approved by:

Dates of Analysis: Asbestos-EPÁ Method 600/R-93/116: 01-02-2013

Technical Manager Miguel Ines

Thiguel Constantion Ina

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01267))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K, LLC

EMLab ID: 1009407, Page 1 of 2

#### EMLab P&K

3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626 (866) 465-6653 Fax (858) 569-5806 www.emlab.com

Client: TestAmerica-Denver

C/O: Donna Rydberg

Re: 280-37307-2

Date of Sampling: 12-20-2012

Date of Receipt: 12-27-2012

Date of Report: 01-02-2013

#### ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

**Total Samples Submitted:** 1

**Total Samples Analysed:** 1

Total Samples with Layer Asbestos Content > 1%: 0

**Location: SE-01 - (0-2) (280-37307-1)**Lab ID-Version‡: 4511387-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Content:	
	< 1% Synthetic Fibers
Sample Composite Homogeneity:	Good

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab ID: 1009407, Page 2 of 2

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Chain of Custody Record			(s) "C and Ollier Remarks:	Cooler Temperature(s)	i e i			į	A Yes A No
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Sampler ID 👝

Temperature on Receipt 472 IRA #8.a/si/12 Drinking Water? Yes □ No文

**Custody Record** 

Chain of

**TestAmerica** 

THE LEADER IN ENVIRONMENTAL TESTING

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Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date Time	Aqueous Sed.	Unpres,	HO <sub>B</sub> N \3AnZ HO <sub>B</sub> N	954 202 1019 122	10/09	500g		
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DISTRIBUTION: WHITE - Returned to Cilent with Report; CANARY - Stays with the Sample; PINK - Field Copy

# **Login Sample Receipt Checklist**

Client: RMC Consultants Inc Job Number: 280-37307-2

Login Number: 37307 List Source: TestAmerica Denver

List Number: 1

Creator: Underwood, Tim

ordator. Orlaterwood, Tilli		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <a href="fig8">&lt;6mm (1/4").</a>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37307-3 Client Project/Site: US 6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

Attn: Jason L Kahlert



Authorized for release by: 1/16/2013 2:24:47 PM Jamie Ide Project Mgmt. Assistant jamie.ide@testamericainc.com

Designee for

Donna Rydberg

Project Manager II

donna.rydberg@testamericainc.com

Links

results through
Total Access

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**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-3

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#### **Case Narrative**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37307-3 Project/Site: US 6 at I-25

Job ID: 280-37307-3

**Laboratory: TestAmerica Denver** 

Narrative

#### **CASE NARRATIVE**

Client: RMC Consultants Inc

Project: US 6 at I-25

Report Number: 280-37307-3

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

The samples were received at TestAmerica Denver on December 21, 2012. The samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.7°C.

Per client request on January 10th, 2013. Sample SE-01 - GW (280-37307-4) was analyzed for Total Suspended Solids outside of the recommended holding time. No other analyses associated with the original chain of custody will be found in this report.

#### **TOTAL SUSPENDED SOLIDS**

Sample SE-01 - GW (280-37307-4) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 01/11/2013.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

# **Definitions/Glossary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-3

# **Qualifiers**

# **General Chemistry**

Qualifier	Qualifier Description
Н	Sample was prepped or analyzed beyond the specified holding time

# **Glossary**

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
₩	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

# **Detection Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25

Client Sample ID: SE-01 - GW

TestAmerica Job ID: 280-37307-3

Lab Sample ID: 280-37307-4

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
Total Suspended Solids	380 H	20	5.5 mg/L	1 SM 2540D	Total/NA

4

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4.6

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# **Method Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-3

Method	Method Description	Protocol	Laboratory
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN

#### **Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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# **Sample Summary**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37307-4	SE-01 - GW	Water	12/20/12 23:00	12/21/12 14:12

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# **Client Sample Results**

Client: RMC Consultants Inc
Project/Site: US 6 at I-25

TestAmerica Job ID: 280-37307-3

**General Chemistry** 

Client Sample ID: SE-01 - GW

Date Collected: 12/20/12 23:00

Lab Sample ID: 280-37307-4

Matrix: Water

Date Received: 12/21/12 14:12

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Total Suspended Solids
 380
 H
 20
 5.5
 mg/L
 01/11/13 16:05
 1

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# **QC Sample Results**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-3

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-155579/3

Matrix: Water

Analysis Batch: 155579

MB MB

AnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FacTotal Suspended SolidsND4.01.1mg/L01/11/13 16:051

Lab Sample ID: LCS 280-155579/1

Matrix: Water

Analysis Batch: 155579

 Analyte
 Added
 Result Number
 Qualifier Number
 Unit Number
 Description
 Resc.

 Total Suspended Solids
 100
 92.0
 mg/L
 92
 86 - 114

Lab Sample ID: LCSD 280-155579/2

**Matrix: Water** 

Analysis Batch: 155579

Spike LCSD LCSD %Rec.
Analyte Added Result Qualifier Unit D %Rec Limits RPD

AnalyteAddedResultQualifierUnitD%RecLimitsRPDLimitTotal Suspended Solids10094.0mg/Lmg/L9486 - 114220

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RPD

# **QC Association Summary**

Client: RMC Consultants Inc
Project/Site: US 6 at I-25

TestAmerica Job ID: 280-37307-3

# **General Chemistry**

# Analysis Batch: 155579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37307-4	SE-01 - GW	Total/NA	Water	SM 2540D	
LCS 280-155579/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-155579/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 280-155579/3	Method Blank	Total/NA	Water	SM 2540D	

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# **Lab Chronicle**

Client: RMC Consultants Inc Project/Site: US 6 at I-25 TestAmerica Job ID: 280-37307-3

Lab Sample ID: 280-37307-4

Matrix: Water

Date Collected: 12/20/12 23:00 Date Received: 12/21/12 14:12

Client Sample ID: SE-01 - GW

Batch Batch Dil Initial Final Batch Prepared Prep Type Method or Analyzed Type Run Factor Amount **Amount** Number Analyst Lab Total/NA Analysis SM 2540D 50 mL 250 mL 155579 01/11/13 16:05 MW TAL DEN

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#### Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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Sampler ID 🖛

Temperature on Receipt 475 JRR

**TestAmerica** 

#8 0/3/12 Drinking Water? Yes □ No 云

Chain of Custody Record

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	Chain of Custody Number 170756	Page / of /		Special instructions/	Conditions of Receipt								-			(A fee may be assessed if samples are retained longer than 1 month)		Date, Time	Dated Time
•	Date /2///2	Lab Number	Analysis Attach list (†)	8/190 190 190 190 190 190 190 190 190 190	1 90 50 1 90 - 1 1 0 L 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	50.99 1991 1900 1009	7			XXXXX	•					(A fee may be asse	0		
	MURRAY ,	Z <u>2</u> 00,	RYDBELL & Analys	-e. VLS12 DV - 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	4.02 10,69 1-2 10en 10en 10en 10en	X X X	メメメ	メメ							ab Archive For	[상	A Second	
\	AUDE PRO MU	Felephone Number (Area Code)/Fax Number	EN Contact	ber	ix Containers & Preservatives	Soil HOS HOS	7 ×	X 3	X 3	3/23						Sample Disposal	O Requirements (Specify	me 1. Received By	Time 2. Received By
	Project Manager	Felephone Number (P	Site Contact  2   Assort Vall En	Carrier/Waybill Number	Matrix	III. Squeous	12 2020 1	12.20.12 2108	12.20,12 2125	12 23co X						Sample Disposal  Unknown	Days Nother X	Date / Cllsch	Date /
	CONSULTANTS, INC	W. 48th Ave,	State Zip Code			tion ed on one line)	2) 12-20-12		36) 12.2011	12.20.12						Skin Imtant Poison B	14 0	And I want	
TAL-4124-280 (0508)	MC	12295 W. 48th	Wheet Raga	Project Name and Location (Mate)	Contract/Purchase Order/Quote No.	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	SE-01-(0-7	SE-01-(24-26	SE-01-134-	SE-01- KW						Possible Hazard Identification	ag 🗆	1By A Up	2, Reij/hquished/By

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Date

3. Received By

Date

# **Login Sample Receipt Checklist**

Client: RMC Consultants Inc Job Number: 280-37307-3

Login Number: 37307 List Source: TestAmerica Denver

List Number: 1

Creator: Underwood, Tim

,,		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37374-1 Client Project/Site: U.S.6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

onna Kydeerg

Attn: Jason L Kahlert

Authorized for release by: 1/22/2013 8:46:10 AM

Donna Rydberg Project Manager II

donna.rydberg@testamericainc.com

.....LINKS .....

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**Have a Question?** 



Visit us at: www.testamericainc.com The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Job ID: 280-37374-1

Laboratory: TestAmerica Denver

Narrative

### **CASE NARRATIVE**

Client: RMC Consultants Inc.

Project: U.S.6 at I-25

Report Number: 280-37374-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### **RECEIPT**

Samples were received at TestAmerica Denver on December 26, 2012. The samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.1°C, 0.2°C and 2.0°C.

The sample requiring Gross A/B was subbed to the TestAmerica Richland laboratory at 2800 George Washington Way, Richland WA 99352 for analysis. The sample results will be found in this report. All other samples were logged under a separate job and will not be found in this report.

3

### **Analytical Data Package Prepared For**

### **TestAmerica Denver**

### Radiochemical Analysis By

### **TestAmerica**

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

**Assigned Laboratory Code: TARL** 

Data Package Contains 18 Pages

Report No.: 54261

Results in this report relate only to the sample(s) analyzed.

					*		
SDG No.	Order No.	Client Sample ID (List Order	r) Lot-Sa No.	Work Order	Report DB ID	Batch No.	
46240		NE-02-GW(280-37374-8)	J2L310413-2	MXQ2A1AC	9MXQ2A10	3002045	
		NE-02-GW(280-37374-8)	J2L310413-2	MXQ2A1AA	9MXQ2A10	3002047	
		SW-01-GW(280-37374-4)	J2L310413-1	MXQ191AC	9MXQ1910	3002045	
		SW-01-GW(280-37374-4)	J2L310413-1	MXQ191AA	9MXQ1910	3002047	



### Certificate of Analysis

January 15, 2013

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002

Attention: Donna Rydberg

Date Received by Lab : December 31, 2012 Sample Number/Matrix : Two (2) Water

SDG Number : 46240

Project : RMC Consultants / US 6 at I-25

Project Number : 280-37374-1

### **CASE NARRATIVE**

### I. Introduction

On December 31, 2012, two water samples were received at the TestAmerica Richland laboratory for radiochemical analysis. Upon receipt, the samples were assigned the TestAmerica identification numbers as described on the cover page of the Analytical Data Package. The samples were assigned to Lot Number J2L310413.

### II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

### III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

**Gas Proportional Counting** 

Gross Alpha by method RL-GPC-001 Gross Beta by method RL-GPC-001

### IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

### V. Comments

### **Gas Proportional Counting**

### Gross Alpha by method RL-GPC-001:

The achieved MDA for samples exceed the CRDL due to the reduced aliquot sizes based on weight screens. The samples were counted for the longest time appropriate for the method. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within acceptance limits.

### Gross Beta by method RL-GPC-001:

The achieved MDA for samples exceed the CRDL due to the reduced aliquot sizes based on weight screens. The samples were counted for the longest time appropriate for the method. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Erika Jordan

2013.01.18 Ordan

14:33:21 -08'00'

Erika Jordan

Customer Service Manager

### **Drinking Water Method Cross References**

131 RL- Beta RL- pha (Coprecipitation) RL- na Radium (Ra-226) RL-	
131 RL- Beta RL- pha (Coprecipitation) RL- na Radium (Ra-226) RL-	-GAM-001 -GPC-001 -GPC-002 -RA-002
oha (Coprecipitation) RL- na Radium (Ra-226) RL-	-GPC-002 -RA-002
na Radium (Ra-226) RL-	RA-002
na Radium (Ra-226) RL-	RA-002
	1/21-001
RL-	RA-001
RL-	GPC-003
RL-	KPA-003
RL-	-LSC-005
	RI RI

### Results in this report relate only to the sample(s) analyzed.

### **Uncertainty Estimation**

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants \* f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u<sub>i</sub>) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u<sub>c</sub>) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

**Report Definitions** 

	Report Definitions
Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s)  u <sub>v</sub> Combined  Uncertainty,	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, $u_c$ the combined uncertainty. The uncertainty is absolute and in the same units as the result,
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Le	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Le=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*YId*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFet/(Eff * YId * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is $1.038$ ,
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S-D)/[sqrt(TPUs^2 + TPUd^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample,
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.
27272224	

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### Date: 15-Jan-13

### Sample Results Summary TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

**Report No.:** 54261

**SDG No: 46240** 

Client Id Batch Work Order Parameter	Result +- Uncertainty ( 2s)	Qual Units	Tracer Yield	MDL	CRDL	RER2
3002045 RL-GPC-001						·
NE-02-GW(280-37374-8)						
MXQ2A1AC ALPHA	30.4 +- 12.0	pCl/L	100%	12.3	3.0	
NW-02-GW(280-37285-2) DUP		·				
MXQTD1AD ALPHA	138.0 +- 42.0	pCl/L	100%	24.4	3.0	0.7
SW-01-GW(280-37374-4)		p = =	100,0	, ,	010	0.7
MXQ191AC ALPHA	89,8 +- 30,0	pCi/L	100%	24.6	3.0	
3002047 RL-GPC-001		Pone	10070	, AT.10	0.0	
231892-122012(280-37267-1) DUP						
MXQRX1AD BETA	5.11 +- 3,1	U pCl/L	100%	5.26	4.0	0.0
NE-02-GW(280-37374-8)	0.11	в ролг	10076	5.20	4.0	0.3
MXQ2A1AA BETA	29.6 + 7.1	~O!/I	4000/	0.00	4.0	
	29.0 → 7.1	pCi/L	100%	8.99	4.0	
SW-01-GW(280-37374-4)	00.0					
MXQ191AA BETA	96.8 +- 17.0	pCi/L	100%	14.9	4.0	
No. of Results: 6						

### Date: 15-Jan-13

### QC Results Summary TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

**Report No.:** 54261

SDG No.: 46240

Batch Work Order	Parameter	Result + Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Blas	MDL
RL-GPC-001						· · · · · · · · · · · · · · · · · · ·	,	
3002045 BLANK (	QC,							
MXQ7A1AA	ALPHA	0.570 +- 0.44	U	pCi/L	100%			0.652
3002045 LCS,		•		J	,,,,,			0,002
MXQ7A1AC	ALPHA	37.5 +- 8.6		pCi/L	100%	92%	-0.1	0.754
3002045 MATRIX	SPIKE, SE-01-GW(280-37307-4)			[0 0 II III	.0070	02,0	0.1	0,104
MXQR91AD	ALPHA	311.0 +- 82.0		pCi/L	100%	101%	0.0	11.3
RL-GPC-001				P = 0	.0070	10170	0.0	11.0
· · · · · · · · · · · · · · · · · · ·	SPIKE, 227284-122012(280-37267	-2)						
MXQR31AD	BETA	283.0 +- 38.0		pCi/L	100%	98%	0.0	4.98
3002047 BLANK 0	OC	250.0 1 00.0		POIL	10076	9076	0.0	4.90
MXQ7D1AA	BETA	1.09 +~ 1.0	U	nOU!	4000/			4 70
3002047 LCS,		1.00 = 1.0	U	pCl/L	100%			1.79
MXQ7D1AC	BETA	107   57		<b>(</b> 11)	40000	40001		
OMICIDAM	DLIA	40.7 +- 5.7		pCl/L	100%	100%	0.0	1.84
No. of Results:	6							

### FORM !

Date: 15-Jan-13

## SAMPLE RESULTS

12/26/2012 1:05:00 PM	12/31/2012 9:50:00 AM	
12/26/201	12/31/201	WATER
Collection Date:	Received Date:	Matrix:
46240	54261	280-165853.1
SDG;	Report No.:	COC No. :
TestAmerica	J2L310413-2	Client Sample ID: NE-02-GW(280-37374-8)
Lab Name:	Lot-Sample No.: J2L310413-2	ent Sample ID:

V         Lc         CRDL(RL)         Rst/MDL, Rst/TotUcert         Analysis, Size         Total Sa Size         Aliquot Size           PCI/L         100%         (2.5)         1/7/13 01:33 p         0.023           PCI/L         100%         (5.1)         L/7/13 04:55 p         L           PCI/L         100%         (3.3)         1/7/13 04:55 p         0.0468           PCI/L         100%         (8.4)         1/7/13 04:55 p         1/7/13 04:55 p
Report DB ID: 9MXQ2A10 100% (2.5) 1/7/13 01:33 p .55 3.0 (5.1)  Report DB ID: 9MXQ2A10 100% (3.3) 1/7/13 04:55 p .34 4.0 (8.4)
100% (2.5) 1/7/13 01:33 p  .55 3.0 (5.1)  Report DB ID: 9MXQ2A10  100% (3.3) 1/7/13 04:55 p  .34 4.0 (8.4)
5.55 3.0 (5.1)  Report DB ID: 9NXQ2A10 100% (3.3) 1/7/13 04:55 p 4.34 4.0 (8.4)
Report DB ID: 9NXQ2A10 100% (3.3) 1/7/13 04:55 p 1.34 4.0 (8.4)
100% (3.3) 1/7/13 04:55 p 1.34 4.0 (8.4)
4.0

Comments: No. of Results: 2

## **FORM!**

Date: 15-Jan-13

## SAMPLE RESULTS

.00 AM	.00 AM	
12/26/2012 9:45:00 AM	12/31/2012 9:50:00 AM	WATER
Collection Date:	Received Date:	Matrix:
46240	54261	280-165853.1
SDG:	Report No.:	COC No. :
TestAmerica	J2L310413-1	Client Sample ID: SW-01-GW(280-37374-4)
Lab Name:	Lot-Sample No.: J2L310413-1	Client Sample ID:

MDL, Action Lev	Work Order: MXQ191AC Report DB ID: 9MXQ1910	30.0 24.6 pCi/L 100% (3.7) 1/7/13 01:33 p 0.0138 GPC22D	11.1 3.0 (5.9) L	Work Order: MXQ191AA Report DB ID: 9MXQ1910	17.0 14.9 pCi/L 100% (6.5) 1/7/13 01:14 p 0.0279 GPC28D	7.17 4.0 (11.2) L	
Rst/MDL, Rst/TotUcert	21910	(3.7)	(5.9)	21910	(6.5)	(11.2)	
Yield CRDL(RL)	T DB ID: 9MX	100%	3.0	# DB ID: 9MX(	100%	4.0	
œ.	Repor	pCi/L	11.1	Repor	pCi/L	7.17	
MDL, Action Lev	MXQ191AC	24.6		MXQ191AA	14.9		
Total Uncert(2 s)	Work Order:	30.0		Work Order:	17.0		
Count Total Qual Error ( 2 s) Uncert( 2 s)		22.0			12.0		
Qual							
Result	RL-GPC-001	86.8		RL-GPC-001	96.8		
Parameter	Batch: 3002045	ALPHA		Bạtch: 3002047	BETA		

Comments: N No. of Results:

MDCIMDALc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Quai - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software. NT est America Nt ptSTLRchSample UV5.2.23 A2002

Page 101 of 22

Date: 15-Jan-13

# **DUPLICATE RESULTS**

Lab Name:	TestAmerica	SDG:	46235	Collection Date:	Collection Date: 12/20/2012 10:30:00 AM
Lot-Sample No.: 32L280423-1	J2L280423-1	Report No.:	54261	Received Date;	12/26/2012 11:00:00 AM
Client Sample ID:	Client Sample ID: 231892-122012(280-37267-1) DUP	COC No. :	280-165322.1	Matrix:	WATER

mpie	mple No.: JZLZ80423-1	7.23-1			Report N	Report No.: 34201			Received Date: 12/26/2012 11:00:00	12/26/2012	711:00:00
Sampl	Sample ID: 231892-122012(280-37267-1) DUP	122012(	(280-37267-1	ı) bür	COC No. :		280-165322.1		Matrix:	WATER	
	Result, Orig Rst	Qual	Count Error ( 2 s)	Total MDL, Uncert(2 s) Action Lev	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size
	RL-GPC-001			Work Order: MXQRX1AD	KQRX1AD	Report D	Report DB ID: MXQRX1DR		Orig Sa DB ID: 9MXQRX10	3RX10	
	5.11	⊃	3.1	3.1	5.26	pCi/L	100%	0.97	1/7/13 01:14 p		0.0751
	r S S		5550 0 3	~~		7		(33)			•

Primary Detector

GPC26B

Comments: No. of Results: 1

BETA

Batch: 3002047 Parameter

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

MDC|MDA,Le - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

VT SolvestAmerica SolvestSTLRchDupV5. C2.23 A2002

Date: 15-Jan-13

## **DUPLICATE RESULTS**

Collection Date: 12/20/2012 11:55:00 AM	Received Date: 12/26/2012 11:00:00 AM
Collection Date:	Received Date:
46237	54261
SDG:	Report No. : 54261
TestAmerica	mole No : 191 980407-4
ame:	· oN elum

Lab Name:		TestAmerica	<i>1</i> 4			SDG:	46237	37		Collection Date: 12/20/2012 11:55:00 AM	12/20/2012	2 11:55:00	AM
Lot-Samp	ole No.:	Lot-Sample No.: J2L280427-1	Ψ,			Report No.:	.: 54261	61		Received Date:	12/26/2012 11:00:00 AM	2 11:00:00	AM
Client Sa	mple ID: 🐧	W-02-GW	(280-3	Client Sample ID: NW-02-GW(280-37285-2) DUP	<u>_</u>	COC No. :		280-165358.1		Matrix:	WATER		
Parameter		Result, Orig Rst	Oual	Count Error (2 s)	Total Uncert( 2 s)	MDL, R	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3002045	RL-GPC-001				Work Order: MXQTD1AD	XQTD1AD	Report	Report DB ID: MXQTD1DR	ITDIDR	Orig Sa DB ID: 9MXQTD10	3TD10		
ALPHA		138.0		27.0	42.0	24.4 p	pCi/L	100%	(5.7)	1/7/13 01:33 p		0.0126	GPC22C
		159.0		RER2 0.7	0.7	'n	3.0		(6.6)			7	

Comments: No. of Results: 1 RER2 · Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

NTestAmerica NTestAmerica NprtSTLRchDupV5. C2.23 A2002

## **BLANK RESULTS**

46240 SDG:

Date: 15-Jan-13

Report No.: 54261 TestAmerica WATER Lab Name: Matrix:

GPC23B GPC26B Primary Detector Aliquot Size 0.1988 0.1998 Total Sa Size 1/7/13 01:33 p 1/7/13 04:55 p Analysis, Prep Date Rst/MDL, Rst/TotUcert 0.61 (2.1) 0.87 (2.6)Report DB (D: MXQ7A1AB Report DB ID: MXQ7D1AB 100% 100% Yield Rpt Unit, CRDL pCi/L pCi/L 3.0 4.0 Work Order: MXQ7A1AA 0.652 0.287 Work Order: MXQ7D1AA 1.79 0.861 MDL, Lc Uncert(2s) Total 0.44 1.0 Error (2s) Count 0.42 1.0 Qual  $\supset$ Result RL-GPC-001 RL-GPC-001 0.570 1.09 Batch: 3002045 Batch: 3002047 ALPHA Parameter BETA

Comments: No. of Results; 2

NT NTestAmerica NorptSTLRchBlank N5.2.23 A2002

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software. MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

3

FORM II

Date: 15-Jan-13

LCS RESULTS

46240 SDG:

Lab Name: TestAmerica

Matrix: WATER

Report No.: 54261

Primary Detector		GPC23C			GPC26C	
Aliquot Size		0.2002	<u>-</u> Н		0.2007	J
Analysis, Prep Date		1/7/13 01:33 p			1/7/13 04:55 p	
Expected Recovery, Uncert Bias		%76	-0.1		100%	0.0
Expected Uncert	g	0.42	130	83	1.6	130
Yield Expected	: MXQ7A1C	40.6	70	: MXQ7D1C	100% 40.8	70
	Report DB ID: MXQ7A1CS	100%	Rec Limits:	Report DB ID: MXQ7D1CS	100%	Rec Limits:
Report Unit	AC	0.754 pCi/L		AC	pCi/L	
MDL	: MXQ7A1AC	0.754		: MXQ7D1AC	1.84 pCi/L	
Total Uncert(2 s)	Work Order:	8.6		Work Order:	5.7	
Count Result Qual Error (2s)		2.1			2,3	
Qual						
Resulf	RL-GPC-001	37.5		RL-GPC-001	40,7	
Parameter	Batch: 3002045	ALPHA		Batch: 3002047	BETA	

Comments: No. of Results: 2

- (Result/Expected)-1 as defined by ANSI N13.30. Bias 7 VTestAmerica CrptSTLRchLcs CV5.2.23 A2002

Page 11.5 of 22

- Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

- (Result/Expected)-1 as defined by ANSI N13.30.

RER Bias

VT VTestAmerica VDrptSTLRchMs CV5.2.3 A2002

## FORM II

Date: 15-Jan-13

# MATRIX SPIKE RESULTS

SDG: TestAmerica Lab Name:

TestAmerica Laboratories, Inc.

46235

Matrix: WATER

Lot-Sample No.: J2L280423-2, 227284-122012(280-37267-2)

Report No.: 54261

Report DB ID: MXQR31DW Uncert(2 s) Total Qual Error (2 s) Count Work Order: MXQR31AD SpikeResult, Orig Rst

Rec-overy

Expected, Uncert

9MXQR310

Orig Sa DB ID; 100%

Yield

Rpt Unit, CRDL

MDC[MDA

98.33%

pCi/L

4.98

38.0

9.4

283.0 3.71

BETA

Batch: 3002047 Parameter

Number of Results:

Comments:

Page 1/6 of 22

1/7/13 01:14 p

0.078

RL-GPC-001 GPC26D

Aliquot Size

11.0

Analysis, Prep Date

288.0

Analy Method, Primary Detector

Date: 15-Jan-13

# MATRIX SPIKE RESULTS

TestAmerica Lab Name:

SDG:

46236

Matrix: WATER

Lot-Sample No.: J2L280426-1, SE-01-GW(280-37307-4)

Report No.: 54261

Analy Method, Primary Detector 0.0265 Aliquot Size 1/7/13 01:33 p Analysis, Prep Date Expected, Uncert 306.0 3.2 9WXQR910 101.47% Rec-overy Orig Sa DB ID; 100% Yield Rpt Unit, CRDL pCi/L Report DB ID: MXQR91DW MDCMDDA <u>7.</u> Uncert(2 s) 82.0 Count Qual Error (2 s) 23.0 Work Order: MXQR91AD SpikeResult, Orig Rst 311.0 22.2 Batch: 3002045 Parameter ALPHA

RL-GPC-001 GPC22A

Number of Results:

Comments:

- Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)#sq(TPUd))] as defined by ICPT BOA. RER Bias

- (Result/Expected)-1 as defined by ANSI N13.30.

Chain of Custody Record

THE LEADER IN ENTHROUNERIAL RESIDIES 

Special Instructions/Note: Company 280-37374-1 Preservation Codes: COC No: 280-165853.1 Page: Page 1 of 1 かる Archive For Date/Time: Aethod of Shipment Analysis Requested Cooler Temperature(s) "Cand Other Remarks: Special Instructions/QC Requirements donna.rydberg@testamericainc.com Received by: Lab PM: Rydberg, Donna R E-Mail: UBCONTRACT/ Grees Bets (Method 900.0) × × × Time: Matrix (W=water, S=solid, O=warsteloil, Water Water Company Sample
Type
(C=comp,
G=grab) 3 Mountain 13:05 Sample Time Mountain 09:45 Date: Due Date Requested: 1/21/2013 TAT Requested (days): Sample Date 12/26/12 12/26/12 Project #: 28009391 SSOW#: Date/Time: hone: WO帯 MEDYM Client Information (Sub Contract Lab) *Unconfirmed* Deliverable Requested: I, II, III, IV, Other (specify) MXO19 Custody Seal No. Sample Identification - Client ID (Lab ID) 509-375-3131(Tel) 509-375-5590(Fax) SDV-ULLAYC 31043 2800 George Washington Way, ossible Hazard Identification estAmerica Laboratories, Inc. SW-01-GW (280-37374-4) NE-02-GW (280-37374-8) Empty Kit Relinquished by: Custody Seals Infact Δ. Yes Δ. No Market In Shipping/Receiving Project Name: U.S.6 at 1-25 700 Relinquished by: State, Zip: WA, 99352 Richland

Arvada, CO 80002 Phone (303) 736-0100 Fax (303) 431-7171

TestAmerica Denver

4955 Yarrow Street



### Sample Check-in List

Date/Ti	me Received: 12-31-12 0950	IM Screen Result:	(Airlock (Sample	k) / O e Receiv	Initi	als[\begin{aligned} \] Initials[\begin{aligned} \]
	5TU) SDG #: 4102					<b>1</b> "
	mber: <u>Jal310413</u>					T
Chain o	of Custody # <u>280 - 165853. 1</u>					
Shippin	g Container ID: NA	K)				,,
Sample	s received inside shipping container/cooler/box	Yes [ ] Continue	e with 1	through	ı 4. <u>Initial</u> apı	propriate response.
		No [ ] Go to 5,				•
1.	Custody Seals on shipping container intact?	Yes D ] No[	]	No Cus	stody Seal [	]
2,	Custody Seals dated and signed?	Yes [ ] No [				]
3.	Cooler temperature:					
4.	Vermiculite/packing materials is	°C NA[] V	Wet [	]	Dry[ <b>]</b> ]	
Item 5 t	hrough 16 for samples. <u>Initial</u> appropriate response,				J	
5.	Chain of Custody record present?	Yes S ] No [	]			
6.	Number of samples received (Each sample may con	ain multiple bottles):	: <u>2</u>	•		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
7.	Containers received: 2 4 LP		* ************************************			
8.	Sample holding times exceeded?	NA[] Y	Yes [	]	No AS I	
9.	Samples have:	n			1	
	tape custody seals	hazard labels appropriate s		labels		
10.	Matrix:A (FLT, Wipe, Solid, Soil)S (Air, Niosh 7400)	I (Water) T (Biologica	ıl, Ni-63	3)		
11.	Samples:are in good conditionare brokenOther	are leaking	bles (Oı	nly for sa	amples requir	ing no head space)
12.	Sample pH appropriate for analysis requested (If acidification is necessary, then document sample ID, in	Yes ] No [ nitial pH, amount of H	] N NO <sub>3</sub> add	[A [ ] ed and pF	I after addition	on table overleaf)
4.0	RPL ID # of preservative used: NA		Λ			
13,	Were any anomalies identified in sample receipt?	Yes [ ]	Noll	<b>&gt;</b> ]		
14.	Description of anomalies (include sample numbers):	NA Y	·			
15 000	Pay 14 06/11		***************************************	V		



15.	Sample Location, Sample *For documentation only	e Collector Listed on C v. No corrective action	COC? * Yes() No[]	
16.	Additional Information:	N/A		
<del></del>		·		·
[ ]	Client/Courier denied temper	ature check.	[ ] Client/Courier unpack cooler.	<del></del>
Samp	le Custodian:	et Book	Date: 12-31-12	
C	lient Informed on	by	Person contacted	
	No action necessar	ry: process as is	Molo Date 1/2/13	

COLUMN TAXES	<u> </u>		/				***************************************
SAMPLE ID	Initial pH	Acid Amt	Final pH 、	SAMPLE ID	Initial pH	Acid Amt	Final pH
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LS-023, Rev. 14, 06/11

See over for additional information.

Client: RMC Consultants Inc Job Number: 280-37374-1

List Source: TestAmerica Denver

Login Number: 37374 List Number: 1

Creator: Underwood, Tim

Creator. Officerwood, Tilli		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Chain of Custody Record

Sampler ID JK

Sampler ID Jik
Temperature on Receipt 1/20, 1; TestAmerica
Drinking Water? Yes 10 No 1/2 THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)		Drinking Water?	Ves □	No 🙀 ○ THE I	-EADER IN ENVIR	THE LEADER IN ENVIRONMENTAL TESTING		
Client		Project Manager	ger			Date	Chain of Custody A	umber
RMC CONSULTANTS, Inc		<u>C</u>	Clark Morray	h		12/26/11	170	.50
Address	4	Telephone N	umber (Area Code)/F	ax Number		Lab Number		
	. (1	203,	203.7 80, H/0		2		Page	. of
Wheet Rids CO 8	2006 80033	Site Contact	Kahler Do	Sie Contact Sie Contact Sie Contact Sie Contact Sie Contact Sie Contact	SO Anal	ysis (Attach list its space is needed		
State)	; •	Carrier/Waybill Number	III Number		52 3/4/5 4)47	hof Apol	_	) on office of
Contract/Purchase Order/Quote No.			Matrix	Containers & Preservatives	T:/U	18/81 16/81 16/14/8 16	Ç50	Special Instructions/ Conditions of Receipt
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	suceupA Soil Soil	HOSOH HOBN HOBH	728 908 908	740		
56-18-0	12/26/12	0863	×-		<b>メ</b> メメ メ			
7112135		2180	× \		メメ			
56-91-1		ଜନ୍ମ ନ	7		× × ×			
5w-01- Gw		5 - Ch. PO	3	223	X X X	メメメソメ	7	
NE-82-0		F111	*		メメメメ			
NE-02-4		92.17	<u>بح</u> 3		メメア			
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NE-02 - 4nd	7	1305	S   X	223		メスメスス	×	-
5							-	
		·	-					
7								
J					-			
Possible Hazard Identification  Non-Hazard	☐ Poison B	Sa	Sample Disposal	Disposal By Lab	Archive For	(A fee may be ass Months longer than 1 mor	(A fee may be assessed if samples are retained longer than 1 month)	ətained
Turn Around Time Required  24 Hours  48 Hours  14 Days		<b>X</b> other	STD	Spec	19			
Lu Muse			7049"	1. Perceived By	Parfer	hr	Date 14-14	Time
2. Rejhquished By		Date (	Time	2. Received By	!		Date	Тіте
3. Relinquished By		Date	Time	3. Received By			Date	Тіте

Comments



THE LEADER IN ENVIRONMENTAL TESTING

### ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

TestAmerica Job ID: 280-37374-2 Client Project/Site: U.S.6 at I-25

For:

RMC Consultants Inc 12295 W 48th Avenue Unit A Wheat Ridge, Colorado 80033

onna Kydeerg

Attn: Jason L Kahlert

Authorized for release by: 1/18/2013 11:52:53 AM

Donna Rydberg
Project Manager II

donna.rydberg@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37374-2

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12

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37374-2

Job ID: 280-37374-2

**Laboratory: TestAmerica Denver** 

Narrative

### **CASE NARRATIVE**

Client: RMC Consultants Inc.

Project: U.S.6 at I-25

Report Number: 280-37374-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

Samples were received at TestAmerica Denver on December 26, 2012. The samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.1°C, 0.2°C and 2.0°C.

The sample requiring Gross A/B was subbed to the TestAmerica Richland laboratory at 2800 George Washington Way, Richland WA 99352 for analysis. This sample was logged and will be reported under a separate job (280-37374-1). Data will not be found in this report.

The report for the Asbestos sample will be found at the back of this report.

### **VOLATILE ORGANIC COMPOUNDS (GC-MS) - SOLID**

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

Several spike and surrogate recoveries were outside control limits in the MS and MSD associated with batch 153872. This MS/MSD batch was performed on a sample from another client and/or job. The associated LCS was in control and provides evidence that operating procedures were in control.

Cyclohexane and Methylcyclohexane were detected in method blank MB 280-154297/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged.

Several spike recoveries were outside control limits in the MS and MSD associated with batch 154301. The associated LCS was in control and provides evidence that operating procedures were in control.

Bromoform was detected in method blank MB 280-154326/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged.

Several spike recoveries were outside control limits in the MS and MSD associated with batch 154355. The associated LCS was in control and provides evidence that operating procedures were in control.

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### Laboratory: TestAmerica Denver (Continued)

No other difficulties were encountered during the VOC analyses.

All other quality control parameters were within the acceptance limits.

### **VOLATILE ORGANIC COMPOUNDS (GC-MS) - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B.

The MS and MSD spike recoveries for 2-Hexanone failed the recovery criteria high in batch 154317. The associated LCS was in control and provides evidence that operating procedures were in control. No further action was required.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS) - WATERS

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C.

Matrix spike samples were not requested and they could not be performed due to insufficient sample volume. The acceptable LCS and LCSD provide evidence of batch precision and accuracy.

No difficulties were encountered during the SVOC analyses.

All quality control parameters were within the acceptance limits.

### **ORGANOCHLORINE PESTICIDES - SOLIDS**

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for organochlorine pesticides in accordance with EPA SW-846 Method 8081A.

Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. Samples SW-01-0 (280-37374-1)[5X], NE-02-0 (280-37374-5)[200X], NE-02-4 (280-37374-6)[10X] and NE-02-9 (280-37374-7)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly. The surrogate recoveries for sample NE-02-0 (280-37374-5) were diluted below reportable limits.

Chlordane (n.o.s.) was detected in method blank MB 280-153994/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Several spike recoveries and RPD values were outside control limits in the MS and MSD associated with batch 280-154637. The associated LCS was in control and demonstrates that operating procedures were in control. No further action was required.

All other quality control parameters were within the acceptance limits.

### POLYCHLORINATED BIPHENYLS (PCBS) - SOLIDS

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082.

The percent recovery for surrogate DCB Decachlorobiphenyl failed the surrogate recovery criteria low in sample SW-01-0 (280-37374-1). The percent recovery for surrogate Tetrachloro-m-xylene was in control. There is chromatographic evidence of matrix interference. Therefore, re-extraction and/or re-analysis was not performed

Sample SW-01-0 (280-37374-1) contained more than one Aroclor component. Results are estimated due to shared peaks.

No other difficulties were encountered during the PCBs analyses.

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Job ID: 280-37374-2 (Continued)

Laboratory: TestAmerica Denver (Continued)

All other quality control parameters were within the acceptance limits.

### **CHLORINATED HERBICIDES - SOLIDS**

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A.

Samples SW-01-0 (280-37374-1) and NE-02-0 (280-37374-5) required a 5X dilution prior to analysis due to sample extracts being dark yellow in color. The dilutions were performed to protect the integrity of the instrument. The reporting limits have been adjusted accordingly.

Several spike recoveries were outside control limits in the MS and MSD associated with batch 280-154642 and performed on sample SW-01-0 (280-37374-1). The associated LCS was in control and provides evidence that operating procedures were in control. No further action was required.

No other difficulties were encountered during the herbicides analyses.

All other quality control parameters were within the acceptance limits.

### **TOTAL METALS**

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for total metals in accordance with EPA SW-846 Method 6010B. The samples were prepared on 12/28/2012 and analyzed on 12/31/2012.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

### **DISSOLVED METALS - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B.

Barium was detected in method blank MB 280-153929/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated samples reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the dissolved metals analyses.

All other quality control parameters were within the acceptance limits.

### **TOTAL METALS - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for total metals in accordance with EPA SW-846 Method 6010B.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

### **DISSOLVED MERCURY - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A.

No difficulties were encountered during the dissolved mercury analyses.

All quality control parameters were within the acceptance limits.

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### Job ID: 280-37374-2 (Continued)

Laboratory: TestAmerica Denver (Continued)

### **TOTAL MERCURY - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A.

The MS and MSD spike recoveries for Mercury failed the recovery criteria high in batch 154241. The associated LCS was in control and provides evidence that operating procedures were in control. No further action was required.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

### **TOTAL MERCURY - SOLIDS**

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A.

The MS spike recovery and the RPD value for Mercury failed the recovery criteria in batch 154492. The associated LCS was in control and provides evidence that operating procedures were in control. No further action was required.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

### OIL AND GREASE (HEM) - WATERS

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for oil and grease (HEM) in accordance with EPA Method 1664A.

No difficulties were encountered during the oil and grease analyses.

All quality control parameters were within the acceptance limits.

### **TOTAL SUSPENDED SOLIDS - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for total suspended solids in accordance with SM20 2540D. Samples were analyzed at a dilution due to high TSS results. The reporting limits were raised accordingly.

No difficulties were encountered during the TSS analyses.

All quality control parameters were within the acceptance limits.

### **PH - WATERS**

Samples SW-01-GW (280-37374-4) and NE-02-GW (280-37374-8) were analyzed for pH in accordance with EPA SW-846 9040C.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

### **PERCENT SOLIDS**

Samples SW-01-0 (280-37374-1), SW-01-4 (280-37374-2), SW-01-11 (280-37374-3), NE-02-0 (280-37374-5), NE-02-4 (280-37374-6) and NE-02-9 (280-37374-7) were analyzed for percent solids in accordance with EPA SW846 3550C.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

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### **Definitions/Glossary**

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### **Qualifiers**

### **GC/MS VOA**

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits
В	Compound was found in the blank and sample.

### GC/MS Semi VOA

**Qualifier Description** 

Qualifier

J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA	
Qualifier	Qualifier Description

X	Surrogate is outside control limits
р	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not
	applicable.

### **Metals**

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	RPD of the MS and MSD exceeds the control limits
В	Compound was found in the blank and sample.

### **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio

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### **Definitions/Glossary**

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### **Glossary (Continued)**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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TestAmerica Job ID: 280-37374-2

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: SW-01-0 Lab Sample ID: 280-37374-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	0.56	JB	6.5	0.52	ug/Kg	1	₩	8260B	Total/NA
Methylcyclohexane	1.3	JB	6.5	0.54	ug/Kg	1	₩	8260B	Total/NA
4,4'-DDE	1.5	Jр	8.7	1.2	ug/Kg	5	₩	8081A	Total/NA
4,4'-DDT	12	р	8.7	3.0	ug/Kg	5	₩	8081A	Total/NA
Chlordane (n.o.s.)	2.8	ЈВр	8.7	1.1	ug/Kg	5	₩	8081A	Total/NA
Dieldrin	5.7	J	8.7	1.1	ug/Kg	5	₩	8081A	Total/NA
PCB-1254	61		34	5.7	ug/Kg	1	₽	8082	Total/NA
PCB-1260	64		34	2.7	ug/Kg	1	₽	8082	Total/NA
Polychlorinated biphenyls, Total	120		34	2.7	ug/Kg	1	₽	8082	Total/NA
Arsenic	3500		1900	620	ug/Kg	1	₽	6010B	Total/NA
Barium	160000		940	71	ug/Kg	1	₩	6010B	Total/NA
Cadmium	170	J	470	38	ug/Kg	1	₽	6010B	Total/NA
Chromium	10000		1400	54	ug/Kg	1	₽	6010B	Total/NA
Lead	35000		750	250	ug/Kg	1	₽	6010B	Total/NA
Selenium	880	J	1200	810	ug/Kg	1	₽	6010B	Total/NA
Mercury	19		17	5.5	ug/Kg	1	₽	7471A	Total/NA

Client Sample ID: SW-01-4 Lab Sample ID: 280-37374-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	2.0		1.8	0.26	ug/Kg		₩	8081A	Total/NA
4,4'-DDT	2.0	p	1.8	0.64	ug/Kg	1	₽	8081A	Total/NA
Chlordane (n.o.s.)	1.5	JB	1.8	0.23	ug/Kg	1	₽	8081A	Total/NA
Dieldrin	0.43	J	1.8	0.23	ug/Kg	1	₽	8081A	Total/NA
Heptachlor epoxide	0.68	J	1.8	0.46	ug/Kg	1	₽	8081A	Total/NA
Arsenic	6000		2200	720	ug/Kg	1	₽	6010B	Total/NA
Barium	110000		1100	83	ug/Kg	1	₩	6010B	Total/NA
Cadmium	76	J	540	45	ug/Kg	1	₽	6010B	Total/NA
Chromium	8400		1600	63	ug/Kg	1	₽	6010B	Total/NA
Lead	37000		870	290	ug/Kg	1	₽	6010B	Total/NA
Mercury	20		20	6.6	ug/Kg	1	₽	7471A	Total/NA

Client Sample ID: SW-01-11 Lab Sample ID: 280-37374-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	800	J	1800	590	ug/Kg	1	₩	6010B	Total/NA
Barium	19000		890	68	ug/Kg	1	₩	6010B	Total/NA
Chromium	1100	J	1300	52	ug/Kg	1	₩	6010B	Total/NA
Lead	1500		710	240	ug/Kg	1	₩	6010B	Total/NA

Client Sample ID: SW-01-GW Lab Sample ID: 280-37374-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.30	J	1.0	0.16	ug/L		_	8260B	Total/NA
Arsenic	7.2	J	15	4.4	ug/L	1		6010B	Total/NA
Barium	430		10	0.58	ug/L	1		6010B	Total/NA
Cadmium	0.68	J	5.0	0.45	ug/L	1		6010B	Total/NA
Chromium	28		10	0.66	ug/L	1		6010B	Total/NA
Lead	21		9.0	2.6	ug/L	1		6010B	Total/NA
Selenium	12	J	15	4.9	ug/L	1		6010B	Total/NA
Barium	170	В	10	0.58	ug/L	1		6010B	Dissolved
Chromium	1.3	J	10	0.66	ug/L	1		6010B	Dissolved

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Lab Sample ID: 280-37374-4

Client Sample ID: SW-01-GW (Continued)

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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	ט	Method	Prep Type
Selenium		J	15	4.9	ug/L	1		6010B	Dissolved
Total Suspended Solids	1400		40	11	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH adj. to 25 deg C	7.05	HF	0.100	0.100	SU	1	_	9040C	Total/NA
Temperature	20.0	HF	1.00	1.00	Degrees C	1		9040C	Total/NA

Client Sample ID: NE-02-0

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ab S	Samp	le ID:	280-	37374-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromoform	0.33	JB	4.9	0.23	ug/Kg		₩	8260B	Total/NA
Methylene Chloride	2.0	J	4.9	1.6	ug/Kg	1	₽	8260B	Total/NA
4,4'-DDD	140	J	340	110	ug/Kg	200	₩	8081A	Total/NA
4,4'-DDE	1900		340	48	ug/Kg	200	₩	8081A	Total/NA
4,4'-DDT	2700		340	120	ug/Kg	200	₽	8081A	Total/NA
Arsenic	6000		2100	710	ug/Kg	1	₩	6010B	Total/NA
Barium	330000		1100	81	ug/Kg	1	₽	6010B	Total/NA
Cadmium	520	J	540	44	ug/Kg	1	₽	6010B	Total/NA
Chromium	10000		1600	62	ug/Kg	1	₽	6010B	Total/NA
Lead	170000		860	290	ug/Kg	1	₽	6010B	Total/NA
Selenium	1300	J	1400	920	ug/Kg	1	₽	6010B	Total/NA
Silver	400	J	1100	170	ug/Kg	1	₩	6010B	Total/NA
Mercury	580		18	6.0	ug/Kg	1	\$	7471A	Total/NA

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Client Sample ID: NE-02-4

### Lab Sample ID: 280-37374-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.4	J	22	5.9	ug/Kg	1	₩	8260B	Total/NA
Bromoform	0.36	JB	5.5	0.25	ug/Kg	1	₽	8260B	Total/NA
4,4'-DDE	58		18	2.5	ug/Kg	10	₽	8081A	Total/NA
4,4'-DDT	98		18	6.2	ug/Kg	10	₩	8081A	Total/NA
Arsenic	3900		2100	700	ug/Kg	1	₽	6010B	Total/NA
Barium	100000		1100	81	ug/Kg	1	₽	6010B	Total/NA
Cadmium	120	J	530	43	ug/Kg	1	₽	6010B	Total/NA
Chromium	9000		1600	61	ug/Kg	1	₩	6010B	Total/NA
Lead	28000		850	290	ug/Kg	1	₽	6010B	Total/NA
Mercury	14	J	20	6.4	ug/Kg	1	₩	7471A	Total/NA

**Client Sample ID: NE-02-9** 

### Lab Sample ID: 280-37374-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	19	5.0	ug/Kg	1	₩	8260B	Total/NA
Bromoform	0.29	JB	4.7	0.22	ug/Kg	1	₽	8260B	Total/NA
Methylene Chloride	1.6	J	4.7	1.5	ug/Kg	1	₽	8260B	Total/NA
Tetrachloroethene	0.90	J	4.7	0.55	ug/Kg	1	₽	8260B	Total/NA
4,4'-DDE	18		8.6	1.2	ug/Kg	5	₩	8081A	Total/NA
4,4'-DDT	40		8.6	3.0	ug/Kg	5	₩	8081A	Total/NA
Arsenic	2100		2000	660	ug/Kg	1	₽	6010B	Total/NA
Barium	34000		1000	76	ug/Kg	1	₩	6010B	Total/NA
Cadmium	48	J	500	41	ug/Kg	1	₽	6010B	Total/NA
Chromium	3300		1500	58	ug/Kg	1	₩	6010B	Total/NA
Lead	8100		800	270	ug/Kg	1	₩	6010B	Total/NA
Mercury	9.0	J	17	5.6	ug/Kg	1	₽	7471A	Total/NA

TestAmerica Denver

### **Detection Summary**

RL

10

5.0

10

5.0

10

9.0

15

10

5.0

10

15

40

RL

0.100

1.00

MDL Unit

1.9 ug/L

0.25 ug/L

0.58 ug/L

0.45 ug/L

0.66 ug/L

2.6 ug/L

4.9 ug/L

0.58 ug/L

0.45 ug/L

0.66 ug/L

4.9 ug/L

11 mg/L

RL Unit

1.00 Degrees C

0.100 SU

Result Qualifier

6.4 J

0.29 J

0.58 J

38

11

9.7 J

150 B

0.49 J

0.85 J

9.6 J

Result Qualifier

7.24 HF

20.0 HF

1000

310

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Analyte

Acetone

Barium

Lead

Cadmium

Chromium

Selenium

Cadmium

Chromium

Selenium

Analyte

Temperature

Total Suspended Solids

pH adj. to 25 deg C

Barium

Methyl tert-butyl ether

TestAmerica Job ID: 280-37374-2

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Client Sample ID: NE-02-GW

Lal	Sample ID	): 280-37374-8
Dil Fac I	) Method	Prep Type
1	8260B	Total/NA
1	8260B	Total/NA
1	6010B	Total/NA
1	6010B	Total/NA
1	6010B	Total/NA
1	6010B	Total/NA
1	6010B	Total/NA
1	6010B	Dissolved
1	6010B	Dissolved
1	6010B	Dissolved

6010B

Method

9040C

9040C

Dil Fac D

SM 2540D

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Dissolved

Total/NA

Prep Type

Total/NA

Total/NA

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### **Method Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37374-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL DEN
8081A	Organochlorine Pesticides (GC)	SW846	TAL DEN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL DEN
8151A	Herbicides (GC)	SW846	TAL DEN
6010B	Metals (ICP)	SW846	TAL DEN
7470A	Mercury (CVAA)	SW846	TAL DEN
7471A	Mercury (CVAA)	SW846	TAL DEN
1664A	Oil & Grease (HEM)	EPA	TAL DEN
9040C	рН	SW846	TAL DEN
Moisture	Percent Moisture	EPA	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
Asbestos (PLM)	General Sub Contract Method	NONE	EMLab-OC

### **Protocol References:**

EPA = US Environmental Protection Agency

NONE = NONE

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### **Laboratory References:**

EMLab-OC = EMLab P&K Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626 TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TestAmerica Denver

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### **Sample Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37374-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-37374-1	SW-01-0	Solid	12/26/12 08:03	12/26/12 17:05
280-37374-2	SW-01-4	Solid	12/26/12 08:12	12/26/12 17:05
280-37374-3	SW-01-11	Solid	12/26/12 08:19	12/26/12 17:05
280-37374-4	SW-01-GW	Water	12/26/12 09:45	12/26/12 17:05
280-37374-5	NE-02-0	Solid	12/26/12 11:14	12/26/12 17:05
280-37374-6	NE-02-4	Solid	12/26/12 11:26	12/26/12 17:05
280-37374-7	NE-02-9	Solid	12/26/12 11:32	12/26/12 17:05
280-37374-8	NE-02-GW	Water	12/26/12 13:05	12/26/12 17:05

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### **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SW-01-0 Lab Sample ID: 280-37374-1

Date Received: 12/26/12 17:05								Percent Soli	ds: 90.4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		26	6.9	ug/Kg	<u></u>	12/31/12 06:00	12/31/12 18:05	1
2-Butanone (MEK)	ND		26	2.4	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
Benzene	ND		6.5	0.61	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
Chlorobenzene	ND		6.5	0.70	ug/Kg	φ.	12/31/12 06:00	12/31/12 18:05	1
Carbon disulfide	ND		6.5		ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
Carbon tetrachloride	ND		6.5	0.81	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
Cyclohexane	0.56	 ЈВ	6.5		ug/Kg		12/31/12 06:00	12/31/12 18:05	1
1,2-Dibromo-3-Chloropropane	ND		13		ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
Bromomethane	ND		13		ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
Bromoform	ND		6.5		ug/Kg		12/31/12 06:00	12/31/12 18:05	· · · · · · · · · · · · · · · · · · ·
Chloroethane	ND		13			₩	12/31/12 06:00	12/31/12 18:05	1
Chloroform	ND		13		ug/Kg	*	12/31/12 06:00	12/31/12 18:05	1
Chlorobromomethane	ND		6.5		ug/Kg	<del>.</del>	12/31/12 06:00	12/31/12 18:05	· 1
Dichlorobromomethane	ND		6.5		ug/Kg ug/Kg		12/31/12 06:00	12/31/12 18:05	1
Chlorodibromomethane	ND		6.5		ug/Kg ug/Kg		12/31/12 06:00	12/31/12 18:05	1
	ND		6.5		ug/Kg		12/31/12 06:00	12/31/12 18:05	
Isopropylbenzene 2-Hexanone	ND ND		26		ug/Kg ug/Kg		12/31/12 06:00	12/31/12 18:05	1
	ND ND								
Chloromethane			13	0.99	ug/Kg		12/31/12 06:00	12/31/12 18:05	1
Dichlorodifluoromethane	ND		13		ug/Kg	~ ⇔	12/31/12 06:00	12/31/12 18:05	1
trans-1,2-Dichloroethene	ND		3.2		ug/Kg	~ ⇔	12/31/12 06:00	12/31/12 18:05	1
trans-1,3-Dichloropropene	ND		6.5		ug/Kg		12/31/12 06:00	12/31/12 18:05	1
Methylene Chloride	ND		6.5		ug/Kg		12/31/12 06:00	12/31/12 18:05	1
Methyl acetate	ND		13		ug/Kg	*	12/31/12 06:00	12/31/12 18:05	1
Methyl tert-butyl ether	ND		26		ug/Kg		12/31/12 06:00	12/31/12 18:05	
4-Methyl-2-pentanone (MIBK)	ND		26		ug/Kg	÷	12/31/12 06:00	12/31/12 18:05	1
Methylcyclohexane		JB	6.5		ug/Kg	₩.	12/31/12 06:00	12/31/12 18:05	1
Styrene	ND		6.5	0.81	ug/Kg		12/31/12 06:00	12/31/12 18:05	1
1,1,2,2-Tetrachloroethane	ND		6.5	0.79	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,2,3-Trichlorobenzene	ND		6.5	0.97	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,2,4-Trichlorobenzene	ND		6.5		ug/Kg	 	12/31/12 06:00	12/31/12 18:05	1
Toluene	ND		6.5	0.89	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,1,1-Trichloroethane	ND		6.5	0.67	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,1,2-Trichloroethane	ND		6.5	1.1	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
Trichloroethene	ND		6.5	0.30	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
1,1,2-Trichlorotrifluoroethane	ND		26	0.58	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
Vinyl chloride	ND		6.5	1.7	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
m-Xylene & p-Xylene	ND		3.2	1.3	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
o-Xylene	ND		3.2	0.79	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
Tetrachloroethene	ND		6.5	0.76	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
1,2-Dichlorobenzene	ND		6.5	0.58	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,3-Dichlorobenzene	ND		6.5	0.62	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,4-Dichlorobenzene	ND		6.5	1.0	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
cis-1,2-Dichloroethene	ND		3.2	0.72	ug/Kg	*	12/31/12 06:00	12/31/12 18:05	1
cis-1,3-Dichloropropene	ND		6.5	1.7	ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
1,1-Dichloroethane	ND		6.5	0.27	ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,1-Dichloroethene	ND		6.5		ug/Kg		12/31/12 06:00	12/31/12 18:05	1
1,2-Dichloroethane	ND		6.5		ug/Kg	₽	12/31/12 06:00	12/31/12 18:05	1
1,2-Dichloropropane	ND		6.5		ug/Kg	₩	12/31/12 06:00	12/31/12 18:05	1
1,4-Dioxane	ND		650		ug/Kg	ф	12/31/12 06:00	12/31/12 18:05	1

TestAmerica Denver

TestAmerica Job ID: 280-37374-2

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SW-01-0	Lab Sample ID: 280-37374-1
Date Collected: 12/26/12 08:03	Matrix: Solid

Date Received: 12/26/12 17:05 Percent Solids: 90.4 MDL Unit Analyte Result Qualifier RLD Prepared Analyzed Dil Fac ₩ Ethylbenzene ND 6.5 0.86 ug/Kg 12/31/12 06:00 12/31/12 18:05 1,2-Dibromoethane ND 6.5 12/31/12 06:00 12/31/12 18:05 0.67 ug/Kg 13 12/31/12 06:00 Trichlorofluoromethane ND 1.3 ug/Kg 12/31/12 18:05

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		58 - 140	12/31/12 06:0	0 12/31/12 18:05	1
Toluene-d8 (Surr)	105		80 - 126	12/31/12 06:0	0 12/31/12 18:05	1
4-Bromofluorobenzene (Surr)	98		76 - 127	12/31/12 06:0	0 12/31/12 18:05	1
Dibromofluoromethane (Surr)	94		75 - 121	12/31/12 06:0	0 12/31/12 18:05	1

Client Sample ID: SW-01-4

Date Collected: 12/26/12 08:12

Lab Sample ID: 280-37374-2

Matrix: Solid

late Collected: 12/26/12 08:12 Matrix: Solid late Received: 12/26/12 17:05 Percent Solids: 91.0

Date Received: 12/26/12 17:05								Percent Solids: 91.0	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		27	7.2	ug/Kg	<del>*</del>	12/27/12 06:00	12/27/12 18:28	1
2-Butanone (MEK)	ND		27	2.4	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Benzene	ND		6.7	0.63	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Chlorobenzene	ND		6.7	0.72	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Carbon disulfide	ND		6.7	0.56	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Carbon tetrachloride	ND		6.7	0.84	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Cyclohexane	ND		6.7	0.53	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,2-Dibromo-3-Chloropropane	ND		13	0.80	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Bromomethane	ND		13	0.67	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Bromoform	ND		6.7	0.31	ug/Kg	\$	12/27/12 06:00	12/27/12 18:28	1
Chloroethane	ND		13	1.2	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Chloroform	ND		13	0.39	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Chlorobromomethane	ND		6.7	0.40	ug/Kg	\$	12/27/12 06:00	12/27/12 18:28	1
Dichlorobromomethane	ND		6.7	0.29	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Chlorodibromomethane	ND		6.7	0.76	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Isopropylbenzene	ND		6.7	0.79	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
2-Hexanone	ND		27	6.5	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Chloromethane	ND		13	1.0	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Dichlorodifluoromethane	ND		13	0.69	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
trans-1,2-Dichloroethene	ND		3.3	0.52	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
trans-1,3-Dichloropropene	ND		6.7	0.89	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Methylene Chloride	ND		6.7	2.1	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
Methyl acetate	ND		13	3.7	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Methyl tert-butyl ether	ND		27	0.45	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
4-Methyl-2-pentanone (MIBK)	ND		27	5.8	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
Methylcyclohexane	ND		6.7	0.56	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Styrene	ND		6.7	0.84	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
1,1,2,2-Tetrachloroethane	ND		6.7	0.81	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,2,3-Trichlorobenzene	ND		6.7	1.0	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
1,2,4-Trichlorobenzene	ND		6.7	0.97	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Toluene	ND		6.7	0.92	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
1,1,1-Trichloroethane	ND		6.7	0.69	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
1,1,2-Trichloroethane	ND		6.7	1.2	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Trichloroethene	ND		6.7	0.31	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,1,2-Trichlorotrifluoroethane	ND		27	0.60	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1
Vinyl chloride	ND		6.7	1.8	ug/Kg	₩	12/27/12 06:00	12/27/12 18:28	1

TestAmerica Denver

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TestAmerica Job ID: 280-37374-2

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: SW-01-4 Date Collected: 12/26/12 08:12

Client Sample ID: SW-01-11

Date Collected: 12/26/12 08:19

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab	Sample	e ID:	280-	37374-2

**Matrix: Solid** 

Percent Solids: 91.0

Date Received: 12/26/12 17:05								Percent Soli	ds: 91.0
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		3.3	1.4	ug/Kg	\$	12/27/12 06:00	12/27/12 18:28	1
o-Xylene	ND		3.3	0.81	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
Tetrachloroethene	ND		6.7	0.79	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,2-Dichlorobenzene	ND		6.7	0.60	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,3-Dichlorobenzene	ND		6.7	0.64	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,4-Dichlorobenzene	ND		6.7	1.0	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
cis-1,2-Dichloroethene	ND		3.3	0.75	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
cis-1,3-Dichloropropene	ND		6.7	1.7	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,1-Dichloroethane	ND		6.7	0.28	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,1-Dichloroethene	ND		6.7	0.79	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,2-Dichloroethane	ND		6.7	0.93	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,2-Dichloropropane	ND		6.7	0.73	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,4-Dioxane	ND		670	75	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
Ethylbenzene	ND		6.7	0.89	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
1,2-Dibromoethane	ND		6.7	0.69	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1
Trichlorofluoromethane	ND		13	1.4	ug/Kg	₽	12/27/12 06:00	12/27/12 18:28	1

Surrogate	%Recovery Qualifi	er Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	58 - 140	12/27/12 06:00	12/27/12 18:28	1
Toluene-d8 (Surr)	110	80 - 126	12/27/12 06:00	12/27/12 18:28	1
4-Bromofluorobenzene (Surr)	108	76 - 127	12/27/12 06:00	12/27/12 18:28	1
Dibromofluoromethane (Surr)	91	75 <sub>-</sub> 121	12/27/12 06:00	12/27/12 18:28	1

Lab Sample ID: 280-37374-3

**Matrix: Solid** 

Date Received: 12/26/12 17:05								Percent Soli	ds: 97.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	5.0	ug/Kg	*	12/27/12 06:00	12/27/12 18:47	1
2-Butanone (MEK)	ND		19	1.7	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Benzene	ND		4.7	0.44	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Chlorobenzene	ND		4.7	0.50	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
Carbon disulfide	ND		4.7	0.39	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
Carbon tetrachloride	ND		4.7	0.59	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Cyclohexane	ND		4.7	0.37	ug/Kg	₩.	12/27/12 06:00	12/27/12 18:47	1
1,2-Dibromo-3-Chloropropane	ND		9.3	0.56	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Bromomethane	ND		9.3	0.47	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Bromoform	ND		4.7	0.21	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
Chloroethane	ND		9.3	0.83	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Chloroform	ND		9.3	0.27	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Chlorobromomethane	ND		4.7	0.28	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
Dichlorobromomethane	ND		4.7	0.21	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Chlorodibromomethane	ND		4.7	0.53	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
Isopropylbenzene	ND		4.7	0.55	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
2-Hexanone	ND		19	4.6	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Chloromethane	ND		9.3	0.72	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
Dichlorodifluoromethane	ND		9.3	0.49	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1
trans-1,2-Dichloroethene	ND		2.3	0.36	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
trans-1,3-Dichloropropene	ND		4.7	0.63	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Methylene Chloride	ND		4.7	1.5	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1
Methyl acetate	ND		9.3	2.6	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SW-01-11							Lab Sample ID: 280-37374				
Date Collected: 12/26/12 08:19								Matri	x: Solid		
Date Received: 12/26/12 17:05								Percent Soli	ds: 97.6		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Methyl tert-butyl ether	ND		19	0.32	ug/Kg	<del>*</del>	12/27/12 06:00	12/27/12 18:47	1		
4-Methyl-2-pentanone (MIBK)	ND		19	4.1	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
Methylcyclohexane	ND		4.7	0.39	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
Styrene	ND		4.7	0.59	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
1,1,2,2-Tetrachloroethane	ND		4.7	0.57	ug/Kg	\$	12/27/12 06:00	12/27/12 18:47	1		
1,2,3-Trichlorobenzene	ND		4.7	0.70	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
1,2,4-Trichlorobenzene	ND		4.7	0.68	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
Toluene	ND		4.7	0.64	ug/Kg	\$	12/27/12 06:00	12/27/12 18:47	1		
1,1,1-Trichloroethane	ND		4.7	0.49	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
1,1,2-Trichloroethane	ND		4.7	0.82	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
Trichloroethene	ND		4.7	0.21	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
1,1,2-Trichlorotrifluoroethane	ND		19	0.42	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
Vinyl chloride	ND		4.7	1.3	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
m-Xylene & p-Xylene	ND		2.3	0.97	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
o-Xylene	ND		2.3	0.57	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
Tetrachloroethene	ND		4.7	0.55	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
1,2-Dichlorobenzene	ND		4.7	0.42	ug/Kg		12/27/12 06:00	12/27/12 18:47	1		
1,3-Dichlorobenzene	ND		4.7	0.45	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
1,4-Dichlorobenzene	ND		4.7	0.73	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
cis-1,2-Dichloroethene	ND		2.3	0.52	ug/Kg		12/27/12 06:00	12/27/12 18:47	1		
cis-1,3-Dichloropropene	ND		4.7	1.2	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
1,1-Dichloroethane	ND		4.7	0.20	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
1,1-Dichloroethene	ND		4.7	0.55	ug/Kg		12/27/12 06:00	12/27/12 18:47	1		
1,2-Dichloroethane	ND		4.7	0.65	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
1,2-Dichloropropane	ND		4.7	0.51	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
1,4-Dioxane	ND		470	52	ug/Kg	φ	12/27/12 06:00	12/27/12 18:47	1		
Ethylbenzene	ND		4.7	0.63	ug/Kg	₩	12/27/12 06:00	12/27/12 18:47	1		
1,2-Dibromoethane	ND		4.7	0.49	ug/Kg	₽	12/27/12 06:00	12/27/12 18:47	1		
Trichlorofluoromethane	ND		9.3	0.97	ug/Kg	\$	12/27/12 06:00	12/27/12 18:47	1		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
1,2-Dichloroethane-d4 (Surr)	93		58 - 140				12/27/12 06:00	12/27/12 18:47	1		
Toluene-d8 (Surr)	110		80 - 126				12/27/12 06:00	12/27/12 18:47	1		
4-Bromofluorobenzene (Surr)	107		76 - 127				12/27/12 06:00	12/27/12 18:47	1		
Dibromofluoromethane (Surr)	91		75 - 121				12/27/12 06:00	12/27/12 18:47	1		

Client Sample ID: SW-01-GW	Lab Sample ID: 280-37374-4
Date Collected: 12/26/12 09:45	Matrix: Water
Date Received: 12/26/12 17:05	

Date Received. 12/26/12 17:05					_			
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND ND	10	1.9	ug/L			01/02/13 13:04	1
2-Butanone (MEK)	ND	6.0	2.0	ug/L			01/02/13 13:04	1
Benzene	ND	1.0	0.16	ug/L			01/02/13 13:04	1
Chlorobenzene	ND	1.0	0.17	ug/L			01/02/13 13:04	1
Carbon disulfide	ND	2.0	0.45	ug/L			01/02/13 13:04	1
Carbon tetrachloride	ND	1.0	0.19	ug/L			01/02/13 13:04	1
Cyclohexane	ND	2.0	0.28	ug/L			01/02/13 13:04	1
1,2-Dibromo-3-Chloropropane	ND	5.0	0.47	ug/L			01/02/13 13:04	1
Bromomethane	ND	2.0	0.21	ug/L			01/02/13 13:04	1
Bromoform	ND	1.0	0.19	ug/L			01/02/13 13:04	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: SW-01-GW

Date Collected: 12/26/12 09:45

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37374-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		2.0	0.41	ug/L			01/02/13 13:04	1
Chloroform	0.30	J	1.0	0.16	ug/L			01/02/13 13:04	1
Chlorobromomethane	ND		1.0	0.10	ug/L			01/02/13 13:04	1
Dichlorobromomethane	ND		1.0	0.17	ug/L			01/02/13 13:04	1
Chlorodibromomethane	ND		1.0	0.17	ug/L			01/02/13 13:04	1
Isopropylbenzene	ND		1.0	0.19	ug/L			01/02/13 13:04	1
2-Hexanone	ND		5.0	1.7	ug/L			01/02/13 13:04	1
Chloromethane	ND		2.0	0.30	ug/L			01/02/13 13:04	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			01/02/13 13:04	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			01/02/13 13:04	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			01/02/13 13:04	1
Methylene Chloride	ND		2.0	0.32	ug/L			01/02/13 13:04	1
Methyl acetate	ND		5.0	1.6	ug/L			01/02/13 13:04	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			01/02/13 13:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			01/02/13 13:04	1
Methylcyclohexane	ND		1.0	0.36	ug/L			01/02/13 13:04	1
Styrene	ND		1.0	0.17	ug/L			01/02/13 13:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/02/13 13:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			01/02/13 13:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			01/02/13 13:04	1
Toluene	ND		1.0	0.17	ug/L			01/02/13 13:04	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			01/02/13 13:04	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			01/02/13 13:04	1
Trichloroethene	ND		1.0	0.16	ug/L			01/02/13 13:04	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			01/02/13 13:04	1
Vinyl chloride	ND		1.0	0.10	ug/L			01/02/13 13:04	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			01/02/13 13:04	1
o-Xylene	ND		1.0	0.19				01/02/13 13:04	1
Tetrachloroethene	ND		1.0		ug/L			01/02/13 13:04	1
1,2-Dichlorobenzene	ND		1.0	0.15				01/02/13 13:04	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			01/02/13 13:04	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			01/02/13 13:04	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			01/02/13 13:04	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/02/13 13:04	1
1,1-Dichloroethane	ND		1.0		ug/L			01/02/13 13:04	1
1,1-Dichloroethene	ND		1.0	0.23				01/02/13 13:04	1
1,2-Dichloroethane	ND		1.0	0.13				01/02/13 13:04	1
1,2-Dichloropropane	ND		1.0		ug/L			01/02/13 13:04	1
1,4-Dioxane	ND		200		ug/L			01/02/13 13:04	1
Ethylbenzene	ND		1.0	0.16				01/02/13 13:04	1
1,2-Dibromoethane	ND		1.0	0.18	-			01/02/13 13:04	1
Trichlorofluoromethane	ND		2.0	0.29				01/02/13 13:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

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01/02/13 13:04

01/02/13 13:04

01/02/13 13:04

01/02/13 13:04

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# **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: NE-02-0

Lab	Sample	ID:	280-3	3737	4-5

	Matrix:	Solid
_		

nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cetone	ND		20	5.3	ug/Kg	<del>*</del>	01/02/13 06:00	01/02/13 17:34	1
-Butanone (MEK)	ND		20	1.8	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	1
enzene	ND		4.9	0.46	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	1
hlorobenzene	ND		4.9	0.53	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	1
arbon disulfide	ND		4.9	0.41	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	1
and an artist and the Police	ND		4.0	0.00		*	04/00/40 00 00	04/00/40 47:04	

Date Received: 12/26/12 17:05								Percent Soli	ds: 92.
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acetone	ND		20	5.3	ug/Kg	<del>\</del>	01/02/13 06:00	01/02/13 17:34	
2-Butanone (MEK)	ND		20	1.8	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Benzene	ND		4.9	0.46	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Chlorobenzene	ND		4.9	0.53	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Carbon disulfide	ND		4.9	0.41	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Carbon tetrachloride	ND		4.9	0.62	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Cyclohexane	ND		4.9	0.39	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
1,2-Dibromo-3-Chloropropane	ND		9.8	0.59	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Bromomethane	ND		9.8	0.49	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Bromoform	0.33	JB	4.9	0.23	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Chloroethane	ND		9.8	0.88	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Chloroform	ND		9.8	0.29	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Chlorobromomethane	ND		4.9	0.30	ug/Kg	\$	01/02/13 06:00	01/02/13 17:34	
Dichlorobromomethane	ND		4.9	0.22	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Chlorodibromomethane	ND		4.9		ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Isopropylbenzene	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
2-Hexanone	ND		20		ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Chloromethane	ND		9.8		ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Dichlorodifluoromethane	ND		9.8		ug/Kg	<del>ф</del>	01/02/13 06:00	01/02/13 17:34	
trans-1,2-Dichloroethene	ND		2.5		ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
trans-1,3-Dichloropropene	ND		4.9		ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Methylene Chloride	2.0	<mark>-</mark>	4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
Methyl acetate	ND	3	9.8		ug/Kg ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Methyl tert-butyl ether	ND ND		20		ug/Kg ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
	ND				ug/Kg ug/Kg			01/02/13 17:34	
4-Methyl-2-pentanone (MIBK)	ND ND		20				01/02/13 06:00	01/02/13 17:34	
Methylcyclohexane			4.9	0.41	ug/Kg	₩	01/02/13 06:00		
Styrene	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
1,1,2,2-Tetrachloroethane	ND		4.9		ug/Kg	<b>₽</b>	01/02/13 06:00	01/02/13 17:34	
1,2,3-Trichlorobenzene	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
1,2,4-Trichlorobenzene	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
Toluene	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
1,1,1-Trichloroethane	ND		4.9		ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,1,2-Trichloroethane	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
Trichloroethene	ND		4.9	0.23	ug/Kg	**	01/02/13 06:00	01/02/13 17:34	
1,1,2-Trichlorotrifluoroethane	ND		20	0.44	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
Vinyl chloride	ND		4.9		ug/Kg		01/02/13 06:00	01/02/13 17:34	
m-Xylene & p-Xylene	ND		2.5	1.0	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
o-Xylene	ND		2.5	0.60	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
Tetrachloroethene	ND		4.9	0.58	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,2-Dichlorobenzene	ND		4.9	0.44	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,3-Dichlorobenzene	ND		4.9	0.47	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,4-Dichlorobenzene	ND		4.9	0.77	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
cis-1,2-Dichloroethene	ND		2.5	0.55	ug/Kg	₽	01/02/13 06:00	01/02/13 17:34	
cis-1,3-Dichloropropene	ND		4.9	1.3	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,1-Dichloroethane	ND		4.9	0.21	ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,1-Dichloroethene	ND		4.9		ug/Kg	φ.	01/02/13 06:00	01/02/13 17:34	
1,2-Dichloroethane	ND		4.9		ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,2-Dichloropropane	ND		4.9		ug/Kg	₩	01/02/13 06:00	01/02/13 17:34	
1,4-Dioxane	ND		490		ug/Kg	<del>-</del>	01/02/13 06:00	01/02/13 17:34	

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NE-02-0 Date Collected: 12/26/12 11:14

Client Sample ID: NE-02-4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab	Sample	ID:	280-37	7374-5

**Matrix: Solid** 

Date Received: 12/26/12 17:05 Percent Solids: 92.3 MDL Unit Analyte Result Qualifier RLD Prepared Analyzed Dil Fac ₩ Ethylbenzene ND 4.9 0.66 ug/Kg 01/02/13 06:00 01/02/13 17:34 1,2-Dibromoethane ND 4.9 0.51 ug/Kg 01/02/13 06:00 01/02/13 17:34 01/02/13 06:00 01/02/13 17:34 Trichlorofluoromethane ND 9.8 1.0 ug/Kg

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		58 - 140	01/02/13 06:00	01/02/13 17:34	1
Toluene-d8 (Surr)	97		80 - 126	01/02/13 06:00	01/02/13 17:34	1
4-Bromofluorobenzene (Surr)	115		76 - 127	01/02/13 06:00	01/02/13 17:34	1
Dibromofluoromethane (Surr)	86		75 - 121	01/02/13 06:00	01/02/13 17:34	1

Lab Sample ID: 280-37374-6

Date Collected: 12/26/12 11:26									x: Solid
Date Received: 12/26/12 17:05 Analyte	Rosult	Qualifier	RL	MDI	Unit	D	Prepared	Percent Soli  Analyzed	Dil Fac
Acetone	7.4		22	5.9	ug/Kg	— <del> </del>	01/02/13 06:00	01/02/13 18:16	1
2-Butanone (MEK)	ND		22	2.0	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
Benzene	ND		5.5	0.51	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Chlorobenzene	ND		5.5	0.59	ug/Kg		01/02/13 06:00	01/02/13 18:16	1
Carbon disulfide	ND		5.5	0.46	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
Carbon tetrachloride	ND		5.5	0.69	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
Cyclohexane	ND		5.5	0.44	ug/Kg		01/02/13 06:00	01/02/13 18:16	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Bromomethane	ND		11		ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Bromoform	0.36	JB	5.5		ug/Kg		01/02/13 06:00	01/02/13 18:16	1
Chloroethane	ND		11	0.97		₩	01/02/13 06:00	01/02/13 18:16	1
Chloroform	ND		11	0.32	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Chlorobromomethane	ND		5.5	0.33	ug/Kg	φ	01/02/13 06:00	01/02/13 18:16	1
Dichlorobromomethane	ND		5.5	0.24	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Chlorodibromomethane	ND		5.5	0.62	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Isopropylbenzene	ND		5.5	0.65	ug/Kg		01/02/13 06:00	01/02/13 18:16	1
2-Hexanone	ND		22	5.4	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Chloromethane	ND		11	0.84	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Dichlorodifluoromethane	ND		11	0.57	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
trans-1,2-Dichloroethene	ND		2.7	0.43	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
trans-1,3-Dichloropropene	ND		5.5	0.73	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Methylene Chloride	ND		5.5	1.8	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Methyl acetate	ND		11	3.0	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Methyl tert-butyl ether	ND		22	0.37	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
4-Methyl-2-pentanone (MIBK)	ND		22	4.8	ug/Kg	φ	01/02/13 06:00	01/02/13 18:16	1
Methylcyclohexane	ND		5.5	0.46	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Styrene	ND		5.5	0.69	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
1,1,2,2-Tetrachloroethane	ND		5.5	0.67	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
1,2,3-Trichlorobenzene	ND		5.5	0.82	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
1,2,4-Trichlorobenzene	ND		5.5	0.80	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Toluene	ND		5.5	0.76	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
1,1,1-Trichloroethane	ND		5.5	0.57	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
1,1,2-Trichloroethane	ND		5.5	0.96	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Trichloroethene	ND		5.5	0.25	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
1,1,2-Trichlorotrifluoroethane	ND		22	0.49	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
Vinyl chloride	ND		5.5	1.5	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1

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Lab Sample ID: 280-37374-6

01/02/13 18:16

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NE-02-4

Trichlorofluoromethane

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

ND

Date Collected: 12/26/12 11:26								Matri	x: Solid
Date Received: 12/26/12 17:05								Percent Soli	ds: 91.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		2.7	1.1	ug/Kg	₩	01/02/13 06:00	01/02/13 18:16	1
o-Xylene	ND		2.7	0.67	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
Tetrachloroethene	ND		5.5	0.65	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
1,2-Dichlorobenzene	ND		5.5	0.49	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
1,3-Dichlorobenzene	ND		5.5	0.53	ug/Kg	₽	01/02/13 06:00	01/02/13 18:16	1
1,4-Dichlorobenzene	ND		5.5	0.85	ug/Kg	<b>‡</b>	01/02/13 06:00	01/02/13 18:16	1

cis-1,2-Dichloroethene ND 2.7 0.61 ug/Kg 01/02/13 06:00 01/02/13 18:16 01/02/13 06:00 cis-1,3-Dichloropropene ND 5.5 1.4 ug/Kg 01/02/13 18:16 ND 5.5 01/02/13 06:00 01/02/13 18:16 1,1-Dichloroethane 0.23 ug/Kg 01/02/13 06:00 01/02/13 18:16 1,1-Dichloroethene ND 5.5 0.65 ug/Kg 1,2-Dichloroethane ND 01/02/13 06:00 01/02/13 18:16 5.5 0.77 ug/Kg 1,2-Dichloropropane ND 5.5 0.60 ug/Kg 01/02/13 06:00 01/02/13 18:16 ND 550 01/02/13 06:00 1,4-Dioxane 61 ug/Kg 01/02/13 18:16 Ethylbenzene ND 5.5 0.73 ug/Kg 01/02/13 06:00 01/02/13 18:16 1,2-Dibromoethane ND 5.5 01/02/13 06:00 01/02/13 18:16 0.57 ug/Kg

Surrogate	%Recovery Qua	ıalifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83	58 - 140	01/02/13 06:00	01/02/13 18:16	1
Toluene-d8 (Surr)	91	80 - 126	01/02/13 06:00	01/02/13 18:16	1
4-Bromofluorobenzene (Surr)	102	76 - 127	01/02/13 06:00	01/02/13 18:16	1
Dibromofluoromethane (Surr)	85	75 - 121	01/02/13 06:00	01/02/13 18:16	1

11

1.1 ug/Kg

01/02/13 06:00

Client Sample ID: NE-02-9 Lab Sample ID: 280-37374-7 Date Collected: 12/26/12 11:32

Date Received: 12/26/12 17:05 Analyte Res	lt Qualifier	RL	MDL	Unit	D	Prepared	Percent Solid	ds: 96.6 Dil Fac
		19	5.0		- <del>=</del>	01/02/13 06:00	01/02/13 17:55	————
	3 J			ug/Kg				
,	D	19	1.7	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Benzene N	D	4.7	0.44	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
Chlorobenzene	D	4.7	0.51	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Carbon disulfide	D	4.7	0.39	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
Carbon tetrachloride	D	4.7	0.59	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
Cyclohexane N	D	4.7	0.37	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,2-Dibromo-3-Chloropropane	D	9.4	0.56	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1
Bromomethane	D	9.4	0.47	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1
Bromoform 0.	9 JB	4.7	0.22	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Chloroethane N	D	9.4	0.83	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1
Chloroform	D	9.4	0.27	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1
Chlorobromomethane N	D	4.7	0.28	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Dichlorobromomethane N	D	4.7	0.21	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Chlorodibromomethane N	D	4.7	0.53	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Isopropylbenzene N	D	4.7	0.55	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
2-Hexanone	D	19	4.6	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1
Chloromethane	D	9.4	0.72	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Dichlorodifluoromethane N	D	9.4	0.49	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
trans-1,2-Dichloroethene	D	2.3	0.37	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
trans-1,3-Dichloropropene	D	4.7	0.63	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1
Methylene Chloride 1	.6 J	4.7	1.5	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Methyl acetate	D	9.4	2.6	ug/Kg	☼	01/02/13 06:00	01/02/13 17:55	1

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**Matrix: Solid** 

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: NE-02-9	Lab Sample ID: 280-37374-7
Date Collected: 12/26/12 11:32	Matrix: Solid
Date Received: 12/26/12 17:05	Percent Solids: 96.6

Date Received: 12/26/12 17:05								Percent Soli	ds: 96.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		19	0.32	ug/Kg	<del>*</del>	01/02/13 06:00	01/02/13 17:55	1
4-Methyl-2-pentanone (MIBK)	ND		19	4.1	ug/Kg	*	01/02/13 06:00	01/02/13 17:55	1
Methylcyclohexane	ND		4.7	0.39	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
Styrene	ND		4.7	0.59	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
1,1,2,2-Tetrachloroethane	ND		4.7	0.57	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,2,3-Trichlorobenzene	ND		4.7	0.70	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
1,2,4-Trichlorobenzene	ND		4.7	0.68	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
Toluene	ND		4.7	0.65	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,1,1-Trichloroethane	ND		4.7	0.49	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,1,2-Trichloroethane	ND		4.7	0.82	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Trichloroethene	ND		4.7	0.22	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,1,2-Trichlorotrifluoroethane	ND		19	0.42	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Vinyl chloride	ND		4.7	1.3	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
m-Xylene & p-Xylene	ND		2.3	0.97	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
o-Xylene	ND		2.3	0.57	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
Tetrachloroethene	0.90	J	4.7	0.55	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,2-Dichlorobenzene	ND		4.7	0.42	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,3-Dichlorobenzene	ND		4.7	0.45	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,4-Dichlorobenzene	ND		4.7	0.73	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
cis-1,2-Dichloroethene	ND		2.3	0.52	ug/Kg	\$	01/02/13 06:00	01/02/13 17:55	1
cis-1,3-Dichloropropene	ND		4.7	1.2	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,1-Dichloroethane	ND		4.7	0.20	ug/Kg	₽	01/02/13 06:00	01/02/13 17:55	1
1,1-Dichloroethene	ND		4.7	0.55	ug/Kg	₩.	01/02/13 06:00	01/02/13 17:55	1
1,2-Dichloroethane	ND		4.7	0.66	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
1,2-Dichloropropane	ND		4.7	0.52	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
1,4-Dioxane	ND		470	53	ug/Kg	₩.	01/02/13 06:00	01/02/13 17:55	1
Ethylbenzene	ND		4.7	0.63	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
1,2-Dibromoethane	ND		4.7	0.49	ug/Kg	₩	01/02/13 06:00	01/02/13 17:55	1
Trichlorofluoromethane	ND		9.4	0.97	ug/Kg		01/02/13 06:00	01/02/13 17:55	1

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83	58 - 140	01/02/13 06:00	01/02/13 17:55	1
Toluene-d8 (Surr)	95	80 - 126	01/02/13 06:00	01/02/13 17:55	1
4-Bromofluorobenzene (Surr)	116	76 - 127	01/02/13 06:00	01/02/13 17:55	1
Dibromofluoromethane (Surr)	86	75 - 121	01/02/13 06:00	01/02/13 17:55	1

Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8 Date Collected: 12/26/12 13:05 **Matrix: Water** 

Date Received: 12/26/12 17:05  Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	6.4 J	10	1.9	ug/L			01/02/13 13:33	1
2-Butanone (MEK)	ND	6.0	2.0	ug/L			01/02/13 13:33	1
Benzene	ND	1.0	0.16	ug/L			01/02/13 13:33	1
Chlorobenzene	ND	1.0	0.17	ug/L			01/02/13 13:33	1
Carbon disulfide	ND	2.0	0.45	ug/L			01/02/13 13:33	1
Carbon tetrachloride	ND	1.0	0.19	ug/L			01/02/13 13:33	1
Cyclohexane	ND	2.0	0.28	ug/L			01/02/13 13:33	1
1,2-Dibromo-3-Chloropropane	ND	5.0	0.47	ug/L			01/02/13 13:33	1
Bromomethane	ND	2.0	0.21	ug/L			01/02/13 13:33	1
Bromoform	ND	1.0	0.19	ug/L			01/02/13 13:33	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: NE-02-GW Date Collected: 12/26/12 13:05

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37374-8

Lau	Sample	ID. 200-3/3/4-0
		Matrix: Water

Analyte	Result Qu	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND -		2.0	0.41	ug/L		•	01/02/13 13:33	1
Chloroform	ND		1.0	0.16	_			01/02/13 13:33	1
Chlorobromomethane	ND		1.0	0.10	ug/L			01/02/13 13:33	1
Dichlorobromomethane	ND		1.0	0.17	_			01/02/13 13:33	1
Chlorodibromomethane	ND		1.0	0.17				01/02/13 13:33	1
Isopropylbenzene	ND		1.0	0.19	ug/L			01/02/13 13:33	1
2-Hexanone	ND		5.0		ug/L			01/02/13 13:33	1
Chloromethane	ND		2.0	0.30	ug/L			01/02/13 13:33	1
Dichlorodifluoromethane	ND		2.0	0.31				01/02/13 13:33	1
trans-1,2-Dichloroethene	ND		1.0	0.15	_			01/02/13 13:33	1
trans-1,3-Dichloropropene	ND		3.0	0.19				01/02/13 13:33	1
Methylene Chloride	ND		2.0	0.32	- <del>-</del>			01/02/13 13:33	1
Methyl acetate	ND		5.0		ug/L			01/02/13 13:33	1
Methyl tert-butyl ether	0.29 J		5.0	0.25				01/02/13 13:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98				01/02/13 13:33	1
Methylcyclohexane	ND		1.0	0.36	_			01/02/13 13:33	1
Styrene	ND		1.0	0.17	_			01/02/13 13:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21				01/02/13 13:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.21				01/02/13 13:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.21				01/02/13 13:33	1
Toluene	ND		1.0	0.17				01/02/13 13:33	1
1,1,1-Trichloroethane	ND		1.0	0.16	_			01/02/13 13:33	1
1,1,2-Trichloroethane	ND		1.0	0.27	_			01/02/13 13:33	1
Trichloroethene	ND		1.0	0.16				01/02/13 13:33	
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42				01/02/13 13:33	1
Vinyl chloride	ND		1.0	0.10	_			01/02/13 13:33	1
m-Xylene & p-Xylene	ND		2.0	0.34				01/02/13 13:33	1
o-Xylene	ND		1.0	0.19	-			01/02/13 13:33	1
Tetrachloroethene	ND		1.0	0.20	_			01/02/13 13:33	1
1,2-Dichlorobenzene	ND		1.0	0.15				01/02/13 13:33	1
1,3-Dichlorobenzene	ND		1.0	0.13	-			01/02/13 13:33	1
1,4-Dichlorobenzene	ND		1.0	0.16				01/02/13 13:33	1
cis-1,2-Dichloroethene	ND		1.0	0.15				01/02/13 13:33	1
cis-1,3-Dichloropropene	ND		1.0	0.16	_			01/02/13 13:33	1
1,1-Dichloroethane	ND		1.0	0.22	-			01/02/13 13:33	1
1,1-Dichloroethene	ND		1.0	0.23				01/02/13 13:33	1
1,2-Dichloroethane	ND		1.0	0.13	_			01/02/13 13:33	1
1,2-Dichloropropane	ND		1.0	0.18				01/02/13 13:33	1
1,4-Dioxane	ND		200		ug/L			01/02/13 13:33	
Ethylbenzene	ND		1.0	0.16				01/02/13 13:33	1
1,2-Dibromoethane	ND		1.0	0.18	_			01/02/13 13:33	1
Trichlorofluoromethane	ND		2.0	0.18				01/02/13 13:33	
Surrogate	%Recovery Qu		.imits		=				Dil Fac

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01/02/13 13:33

01/02/13 13:33

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1

### **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: SW-01-GW

Butyl benzyl phthalate

Caprolactam

Carbazole

Lab Sample ID: 280-37374-4

Date Collected: 12/26/12 09:45 Date Received: 12/26/12 17:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		9.6	1.7	ug/L		12/28/12 11:36	12/31/12 23:21	1
1,2,4,5-Tetrachlorobenzene	ND		9.6	1.7	ug/L		12/28/12 11:36	12/31/12 23:21	1
1,2,4-Trichlorobenzene	ND		3.8	0.27	ug/L		12/28/12 11:36	12/31/12 23:21	1
1,2-Dichlorobenzene	ND		3.8	0.22	ug/L		12/28/12 11:36	12/31/12 23:21	1
1,3-Dichlorobenzene	ND		9.6	0.29	ug/L		12/28/12 11:36	12/31/12 23:21	1
1,4-Dichlorobenzene	ND		3.8	0.31	ug/L		12/28/12 11:36	12/31/12 23:21	1
1,4-Dioxane	ND		19	1.6	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,4,6-Trichlorophenol	ND		9.6	0.28	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,4-Dichlorophenol	ND		9.6	0.61	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,2'-oxybis[1-chloropropane]	ND		9.6	0.27	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,3,4,6-Tetrachlorophenol	ND		48	1.9	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,4,5-Trichlorophenol	ND		9.6	0.43	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,4-Dimethylphenol	ND		9.6	0.55	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,4-Dinitrophenol	ND		29	9.6	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,4-Dinitrotoluene	ND		9.6	1.6	ug/L		12/28/12 11:36	12/31/12 23:21	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		12/28/12 11:36	12/31/12 23:21	1
2-Chloronaphthalene	ND		3.8	0.25			12/28/12 11:36	12/31/12 23:21	1
2-Chlorophenol	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
2-Methylnaphthalene	ND		3.8	0.28			12/28/12 11:36	12/31/12 23:21	1
2-Methylphenol	ND		9.6	0.94			12/28/12 11:36	12/31/12 23:21	1
3 & 4 Methylphenol	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
2-Nitroaniline	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
2-Nitrophenol	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
3,3'-Dichlorobenzidine	ND		48		ug/L		12/28/12 11:36	12/31/12 23:21	1
3-Nitroaniline	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
4,6-Dinitro-2-methylphenol	ND		48		ug/L		12/28/12 11:36	12/31/12 23:21	1
4-Bromophenyl phenyl ether	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
4-Chloro-3-methylphenol	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
4-Chloroaniline	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
4-Chlorophenyl phenyl ether	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
4-Nitroaniline	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
4-Nitrophenol	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
Acenaphthene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	1
Acenaphthylene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	1
Acetophenone	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
Anthracene	ND		3.8	0.40	J		12/28/12 11:36	12/31/12 23:21	1
Atrazine	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
Benzaldehyde	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
Benzo[a]pyrene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	1
Benzo[b]fluoranthene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	· · · · · · · · · · · · · · · · · · ·
Benzo[g,h,i]perylene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	1
Benzo[k]fluoranthene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	1
Benzo[a]anthracene	ND		3.8		ug/L		12/28/12 11:36	12/31/12 23:21	
Bis(2-chloroethoxy)methane	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
Bis(2-chloroethyl)ether	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	1
Bis(2-ethylhexyl) phthalate	ND		9.6		ug/L		12/28/12 11:36	12/31/12 23:21	······· 1
Dio(E difyrioxy), primaiate	IND		9.0	0.04	ag, L		12/20/12 11.00	12101112 20.21	1

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12/31/12 23:21

12/31/12 23:21

12/31/12 23:21

12/28/12 11:36

12/28/12 11:36

12/28/12 11:36

3.8

9.6

3.8

0.96 ug/L

4.8 ug/L

0.41 ug/L

ND

ND

ND

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: SW-01-GW Date Collected: 12/26/12 09:45

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37374-4

**Matrix: Water** 

Date Received: 12/26/12 17:05	Denville O			1114		Dunnanad	A I d	D!! F
Analyte	Result Q	·			D	Prepared	Analyzed	Dil Fac
Chrysene	ND	3.		J		12/28/12 11:36	12/31/12 23:21	1
Dibenz(a,h)anthracene	ND	3.	8 0.49	ug/L		12/28/12 11:36	12/31/12 23:21	1
Di-n-butyl phthalate	ND	3.	8 1.1	ug/L		12/28/12 11:36	12/31/12 23:21	1
Di-n-octyl phthalate	ND	3.	8 0.33	ug/L		12/28/12 11:36	12/31/12 23:21	1
Dibenzofuran	ND	3.	8 0.28	ug/L		12/28/12 11:36	12/31/12 23:21	1
Diethyl phthalate	ND	3.	8 0.36	ug/L		12/28/12 11:36	12/31/12 23:21	1
Dimethyl phthalate	ND	3.	8 0.20	ug/L		12/28/12 11:36	12/31/12 23:21	1
Fluoranthene	ND	3.	8 0.19	ug/L		12/28/12 11:36	12/31/12 23:21	1
Fluorene	ND	3.	8 0.30	ug/L		12/28/12 11:36	12/31/12 23:21	1
Hexachlorobenzene	ND	9.	6 0.63	ug/L		12/28/12 11:36	12/31/12 23:21	1
Hexachlorobutadiene	ND	9.	6 3.2	ug/L		12/28/12 11:36	12/31/12 23:21	1
Hexachlorocyclopentadiene	ND	4	8 9.6	ug/L		12/28/12 11:36	12/31/12 23:21	1
Hexachloroethane	ND	9.	6 2.0	ug/L		12/28/12 11:36	12/31/12 23:21	1
Indeno[1,2,3-cd]pyrene	ND	3.	8 0.62	ug/L		12/28/12 11:36	12/31/12 23:21	1
Isophorone	ND	9.	6 0.20	ug/L		12/28/12 11:36	12/31/12 23:21	1
N-Nitrosodi-n-propylamine	ND	9.	6 0.33	ug/L		12/28/12 11:36	12/31/12 23:21	1
n-Nitrosodiphenylamine(as diphenylamine)	ND	9.	6 0.42	ug/L		12/28/12 11:36	12/31/12 23:21	1
Naphthalene	ND	3.	8 0.28	ug/L		12/28/12 11:36	12/31/12 23:21	1
Nitrobenzene	ND	9.	6 0.77	ug/L		12/28/12 11:36	12/31/12 23:21	1
Pentachlorophenol	ND	4	8 19	ug/L		12/28/12 11:36	12/31/12 23:21	1
Phenanthrene	ND	3.	8 0.25	ug/L		12/28/12 11:36	12/31/12 23:21	1
Phenol	ND	9.	6 1.9	ug/L		12/28/12 11:36	12/31/12 23:21	1
Pyrene	ND	9.	6 0.35	ug/L		12/28/12 11:36	12/31/12 23:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fa
2-Fluorophenol	74		51 - 120	12/28/12 11:36	12/31/12 23:21	1
Phenol-d5	79		51 - 120	12/28/12 11:36	12/31/12 23:21	1
2,4,6-Tribromophenol	96		57 - 120	12/28/12 11:36	12/31/12 23:21	1
2-Fluorobiphenyl	82		38 - 120	12/28/12 11:36	12/31/12 23:21	1
Nitrobenzene-d5	85		48 - 120	12/28/12 11:36	12/31/12 23:21	1
Terphenyl-d14	74		50 - 120	12/28/12 11:36	12/31/12 23:21	1
<u> </u>						

Client Sample ID: NE-02-GW Date Collected: 12/26/12 13:05 Date Received: 12/26/12 17:05 Lab Sample ID: 280-37374-8 **Matrix: Water** 

Date Received: 12/26/12 17:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	ND		9.5	1.7	ug/L		12/28/12 11:36	12/31/12 23:40	1
1,2,4,5-Tetrachlorobenzene	ND		9.5	1.7	ug/L		12/28/12 11:36	12/31/12 23:40	1
1,2,4-Trichlorobenzene	ND		3.8	0.27	ug/L		12/28/12 11:36	12/31/12 23:40	1
1,2-Dichlorobenzene	ND		3.8	0.22	ug/L		12/28/12 11:36	12/31/12 23:40	1
1,3-Dichlorobenzene	ND		9.5	0.29	ug/L		12/28/12 11:36	12/31/12 23:40	1
1,4-Dichlorobenzene	ND		3.8	0.31	ug/L		12/28/12 11:36	12/31/12 23:40	1
1,4-Dioxane	ND		19	1.6	ug/L		12/28/12 11:36	12/31/12 23:40	1
2,4,6-Trichlorophenol	ND		9.5	0.28	ug/L		12/28/12 11:36	12/31/12 23:40	1
2,4-Dichlorophenol	ND		9.5	0.61	ug/L		12/28/12 11:36	12/31/12 23:40	1
2,2'-oxybis[1-chloropropane]	ND		9.5	0.27	ug/L		12/28/12 11:36	12/31/12 23:40	1
2,3,4,6-Tetrachlorophenol	ND		48	1.9	ug/L		12/28/12 11:36	12/31/12 23:40	1
2,4,5-Trichlorophenol	ND		9.5	0.43	ug/L		12/28/12 11:36	12/31/12 23:40	1
2,4-Dimethylphenol	ND		9.5	0.55	ug/L		12/28/12 11:36	12/31/12 23:40	1

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# **Client Sample Results**

Client: RMC Consultants Inc
Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37374-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: NE-02-GW

Lab Sample ID: 280-37374-8

Date Collected: 12/26/12 13:05 Date Received: 12/26/12 17:05							Watri	x: Wate
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND -	29	9.5	ug/L		12/28/12 11:36	12/31/12 23:40	
2,4-Dinitrotoluene	ND	9.5	1.6	ug/L		12/28/12 11:36	12/31/12 23:40	
2,6-Dinitrotoluene	ND	9.5	1.8	ug/L		12/28/12 11:36	12/31/12 23:40	
2-Chloronaphthalene	ND	3.8	0.25	ug/L		12/28/12 11:36	12/31/12 23:40	
2-Chlorophenol	ND	9.5	1.9			12/28/12 11:36	12/31/12 23:40	
2-Methylnaphthalene	ND	3.8	0.28	ug/L		12/28/12 11:36	12/31/12 23:40	
2-Methylphenol	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	
3 & 4 Methylphenol	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	
2-Nitroaniline	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	· · · · · · .
2-Nitrophenol	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	
3,3'-Dichlorobenzidine	ND	48		-		12/28/12 11:36	12/31/12 23:40	
3-Nitroaniline	ND	9.5	1.9	ug/L		12/28/12 11:36	12/31/12 23:40	
4,6-Dinitro-2-methylphenol	ND	48	3.8	-		12/28/12 11:36	12/31/12 23:40	
4-Bromophenyl phenyl ether	ND	9.5	0.41	ug/L		12/28/12 11:36	12/31/12 23:40	
4-Chloro-3-methylphenol	ND	9.5				12/28/12 11:36	12/31/12 23:40	
4-Chloroaniline	ND	9.5	2.0	ug/L		12/28/12 11:36	12/31/12 23:40	
4-Chlorophenyl phenyl ether	ND	9.5				12/28/12 11:36	12/31/12 23:40	
4-Nitroaniline	ND	9.5	1.9			12/28/12 11:36	12/31/12 23:40	
4-Nitrophenol	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	
Acenaphthene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Acenaphthylene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	<i>.</i>
Acetophenone	ND	9.5		_		12/28/12 11:36	12/31/12 23:40	
·	ND							
Artrazina		3.8 9.5		ug/L		12/28/12 11:36 12/28/12 11:36	12/31/12 23:40 12/31/12 23:40	
Atrazine	ND ND	9.5 9.5	0.70	•				•
Benzaldehyde			1.9	ug/L		12/28/12 11:36	12/31/12 23:40	
Benzo[a]pyrene	ND	3.8	0.30			12/28/12 11:36	12/31/12 23:40	
Benzo[b]fluoranthene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Benzo[g,h,i]perylene	ND	3.8	0.48	•		12/28/12 11:36	12/31/12 23:40	•
Benzo[k]fluoranthene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Benzo[a]anthracene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Bis(2-chloroethoxy)methane	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	•
Bis(2-chloroethyl)ether	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	
Bis(2-ethylhexyl) phthalate	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	•
Butyl benzyl phthalate	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Caprolactam	ND	9.5		ug/L		12/28/12 11:36	12/31/12 23:40	
Carbazole	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Chrysene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	•
Dibenz(a,h)anthracene	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Di-n-butyl phthalate	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Di-n-octyl phthalate	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Dibenzofuran	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Diethyl phthalate	ND	3.8		ug/L		12/28/12 11:36	12/31/12 23:40	
Dimethyl phthalate	ND	3.8	0.20	-		12/28/12 11:36	12/31/12 23:40	
Fluoranthene	ND	3.8	0.19	ug/L		12/28/12 11:36	12/31/12 23:40	
Fluorene	ND	3.8	0.30	ug/L		12/28/12 11:36	12/31/12 23:40	
Hexachlorobenzene	ND	9.5	0.63	ug/L		12/28/12 11:36	12/31/12 23:40	
Hexachlorobutadiene	ND	9.5	3.1	ug/L		12/28/12 11:36	12/31/12 23:40	
Hexachlorocyclopentadiene	ND	48	9.5	ug/L		12/28/12 11:36	12/31/12 23:40	
Hexachloroethane	ND	9.5	2.0	ug/L		12/28/12 11:36	12/31/12 23:40	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8

Date Collected: 12/26/12 13:05								Matrix	x: Water
Date Received: 12/26/12 17:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		3.8	0.62	ug/L		12/28/12 11:36	12/31/12 23:40	1
Isophorone	ND		9.5	0.20	ug/L		12/28/12 11:36	12/31/12 23:40	1
N-Nitrosodi-n-propylamine	ND		9.5	0.33	ug/L		12/28/12 11:36	12/31/12 23:40	1
n-Nitrosodiphenylamine(as	ND		9.5	0.42	ug/L		12/28/12 11:36	12/31/12 23:40	1
diphenylamine)									
Naphthalene	ND		3.8	0.28	ug/L		12/28/12 11:36	12/31/12 23:40	1
Nitrobenzene	ND		9.5	0.77	ug/L		12/28/12 11:36	12/31/12 23:40	1
Pentachlorophenol	ND		48	19	ug/L		12/28/12 11:36	12/31/12 23:40	1
Phenanthrene	ND		3.8	0.25	ug/L		12/28/12 11:36	12/31/12 23:40	1
Phenol	ND		9.5	1.9	ug/L		12/28/12 11:36	12/31/12 23:40	1
Pyrene	ND		9.5	0.35	ug/L		12/28/12 11:36	12/31/12 23:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	74		51 - 120				12/28/12 11:36	12/31/12 23:40	1
Phenol-d5	79		51 - 120				12/28/12 11:36	12/31/12 23:40	1
2,4,6-Tribromophenol	94		57 - 120				12/28/12 11:36	12/31/12 23:40	1
2-Fluorobiphenyl	81		38 - 120				12/28/12 11:36	12/31/12 23:40	1
Nitrobenzene-d5	83		48 - 120				12/28/12 11:36	12/31/12 23:40	1
Terphenyl-d14	79		50 - 120				12/28/12 11:36	12/31/12 23:40	1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: SW-01-0 Lab Sample ID: 280-37374-1 Date Collected: 12/26/12 08:03 Matrix: Solid

Date Collected: 12/26/12 08:03								Matri	x: Solid
Date Received: 12/26/12 17:05								Percent Soli	ds: 90.4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		8.7	2.8	ug/Kg	<del>\</del>	12/28/12 09:48	01/04/13 12:49	5
4,4'-DDE	1.5	Jр	8.7	1.2	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
4,4'-DDT	12	p	8.7	3.0	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Aldrin	ND		8.7	1.3	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
alpha-BHC	ND		8.7	1.1	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
beta-BHC	ND		8.7	3.4	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Chlordane (n.o.s.)	2.8	JBp	8.7	1.1	ug/Kg	₽	12/28/12 09:48	01/04/13 12:49	5
delta-BHC	ND		8.7	2.1	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Dieldrin	5.7	J	8.7	1.1	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Endosulfan I	ND		8.7	0.90	ug/Kg	₽	12/28/12 09:48	01/04/13 12:49	5
Endosulfan II	ND		8.7	1.5	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Endosulfan sulfate	ND		8.7	1.4	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Endrin	ND		8.7	1.6	ug/Kg	\$	12/28/12 09:48	01/04/13 12:49	5
Endrin aldehyde	ND		8.7	0.88	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
gamma-BHC (Lindane)	ND		8.7	2.4	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Heptachlor	ND		8.7	1.1	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Heptachlor epoxide	ND		8.7	2.2	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Methoxychlor	ND		17	2.3	ug/Kg	₩	12/28/12 09:48	01/04/13 12:49	5
Toxaphene	ND		340	81	ug/Kg	\$	12/28/12 09:48	01/04/13 12:49	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

DCB Decachlorobiphenyl 107 D 63 - 124 12/28/12 09:48 01/04/13 12:49 5 84 D 59 - 115 12/28/12 09:48 01/04/13 12:49 5 Tetrachloro-m-xylene

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

DCB Decachlorobiphenyl

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: SW-01-4							Lab S	Sample ID: 280-	37374-2
Date Collected: 12/26/12 08:12								Matri	ix: Solid
Date Received: 12/26/12 17:05								Percent Soli	ds: 91.0
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4.4' DDD	ND		1.0	0.50	ua/Ka	<u>\(\tilde{\tau}\)</u>	12/20/12 00:49	01/04/12 12:05	

Date Received: 12/26/12 17:05								Percent Son	as: 91.0
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.8	0.59	ug/Kg	₩	12/28/12 09:48	01/04/13 13:05	1
4,4'-DDE	2.0		1.8	0.26	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
4,4'-DDT	2.0	р	1.8	0.64	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Aldrin	ND		1.8	0.27	ug/Kg	<b>\$</b>	12/28/12 09:48	01/04/13 13:05	1
alpha-BHC	ND		1.8	0.23	ug/Kg	₩	12/28/12 09:48	01/04/13 13:05	1
beta-BHC	ND		1.8	0.72	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Chlordane (n.o.s.)	1.5	JB	1.8	0.23	ug/Kg	φ.	12/28/12 09:48	01/04/13 13:05	1
delta-BHC	ND		1.8	0.43	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Dieldrin	0.43	J	1.8	0.23	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Endosulfan I	ND		1.8	0.19	ug/Kg	\$	12/28/12 09:48	01/04/13 13:05	1
Endosulfan II	ND		1.8	0.31	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Endosulfan sulfate	ND		1.8	0.30	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Endrin	ND		1.8	0.33	ug/Kg	\$	12/28/12 09:48	01/04/13 13:05	1
Endrin aldehyde	ND		1.8	0.19	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
gamma-BHC (Lindane)	ND		1.8	0.50	ug/Kg	₩	12/28/12 09:48	01/04/13 13:05	1
Heptachlor	ND		1.8	0.23	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Heptachlor epoxide	0.68	J	1.8	0.46	ug/Kg	₽	12/28/12 09:48	01/04/13 13:05	1
Methoxychlor	ND		3.6	0.49	ug/Kg	₩	12/28/12 09:48	01/04/13 13:05	1
Toxaphene	ND		73	17	ug/Kg		12/28/12 09:48	01/04/13 13:05	1

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	93	63 - 124	12/28/12 09:48	01/04/13 13:05	1
Tetrachloro-m-xylene	82	59 - 115	12/28/12 09:48	01/04/13 13:05	1

Client Sample ID: SW-01-11

Date Collected: 12/26/12 08:19

Matrix: Solid

Date Received: 12/26/12 17:0	05						Percent Soli	ds: 97.6
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND ND	1.6	0.52	ug/Kg	\$	12/28/12 09:48	01/04/13 13:22	1
4,4'-DDE	ND	1.6	0.23	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
4,4'-DDT	ND	1.6	0.56	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Aldrin	ND	1.6	0.24	ug/Kg	\$	12/28/12 09:48	01/04/13 13:22	1
alpha-BHC	ND	1.6	0.20	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
beta-BHC	ND	1.6	0.63	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Chlordane (n.o.s.)	ND	1.6	0.20	ug/Kg	\$	12/28/12 09:48	01/04/13 13:22	1
delta-BHC	ND	1.6	0.38	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Dieldrin	ND	1.6	0.20	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Endosulfan I	ND	1.6	0.17	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Endosulfan II	ND	1.6	0.27	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Endosulfan sulfate	ND	1.6	0.26	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Endrin	ND	1.6	0.29	ug/Kg	<b>\$</b>	12/28/12 09:48	01/04/13 13:22	1
Endrin aldehyde	ND	1.6	0.16	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
gamma-BHC (Lindane)	ND	1.6	0.44	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Heptachlor	ND	1.6	0.20	ug/Kg	φ.	12/28/12 09:48	01/04/13 13:22	1
Heptachlor epoxide	ND	1.6	0.41	ug/Kg	₩	12/28/12 09:48	01/04/13 13:22	1
Methoxychlor	ND	3.1	0.43	ug/Kg	₽	12/28/12 09:48	01/04/13 13:22	1
Toxaphene	ND	64	15	ug/Kg	\$	12/28/12 09:48	01/04/13 13:22	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac

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12/28/12 09:48 01/04/13 13:22

63 - 124

107

3

4

6

8

10

12

13

Percent Solids: 97.6

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: SW-01-11 Lab Sample ID: 280-37374-3 **Matrix: Solid** 

Date Collected: 12/26/12 08:19 Date Received: 12/26/12 17:05

Surrogate %Recovery Qualifier Limits Prepared Analyzed Tetrachloro-m-xylene 97 59 - 115 12/28/12 09:48 01/04/13 13:22

Client Sample ID: NE-02-0 Lab Sample ID: 280-37374-5 Date Collected: 12/26/12 11:14 **Matrix: Solid** 

Date Received: 12/26/12 17:05 Percent Solids: 92.3

Date Received: 12/26/12 17:05								Percent Son	us: 92.3
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	140	J	340	110	ug/Kg	<del></del>	12/28/12 09:48	01/04/13 13:39	200
4,4'-DDE	1900		340	48	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
4,4'-DDT	2700		340	120	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Aldrin	ND		340	51	ug/Kg	₽	12/28/12 09:48	01/04/13 13:39	200
alpha-BHC	ND		340	43	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
beta-BHC	ND		340	130	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Chlordane (n.o.s.)	ND		340	43	ug/Kg	\$	12/28/12 09:48	01/04/13 13:39	200
delta-BHC	ND		340	81	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Dieldrin	ND		340	43	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Endosulfan I	ND		340	36	ug/Kg	₽	12/28/12 09:48	01/04/13 13:39	200
Endosulfan II	ND		340	58	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Endosulfan sulfate	ND		340	56	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Endrin	ND		340	62	ug/Kg	₽	12/28/12 09:48	01/04/13 13:39	200
Endrin aldehyde	ND		340	35	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
gamma-BHC (Lindane)	ND		340	94	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Heptachlor	ND		340	43	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Heptachlor epoxide	ND		340	86	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Methoxychlor	ND		670	91	ug/Kg	₩	12/28/12 09:48	01/04/13 13:39	200
Toxaphene	ND		14000	3200	ug/Kg	φ.	12/28/12 09:48	01/04/13 13:39	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	D	63 - 124	12/28/12 09:48	01/04/13 13:39	200
Tetrachloro-m-xylene	0	D	59 - 115	12/28/12 09:48	01/04/13 13:39	200

Client Sample ID: NE-02-4 Lab Sample ID: 280-37374-6 Date Collected: 12/26/12 11:26 **Matrix: Solid** 

Heptachlor

Date Collected. 12/20/12 11.20								Wati	A. Ooliu
Date Received: 12/26/12 17:05								Percent Soli	ds: 91.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		18	5.7	ug/Kg	\$	12/28/12 09:48	01/04/13 13:56	10
4,4'-DDE	58		18	2.5	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
4,4'-DDT	98		18	6.2	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Aldrin	ND		18	2.6	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
alpha-BHC	ND		18	2.2	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
beta-BHC	ND		18	6.9	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Chlordane (n.o.s.)	ND		18	2.2	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
delta-BHC	ND		18	4.2	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Dieldrin	ND		18	2.2	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Endosulfan I	ND		18	1.8	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Endosulfan II	ND		18	3.0	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Endosulfan sulfate	ND		18	2.9	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Endrin	ND		18	3.2	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Endrin aldehyde	ND		18	1.8	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
gamma-BHC (Lindane)	ND		18	4.8	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10

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01/04/13 13:56

12/28/12 09:48

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18

2.2 ug/Kg

ND

1/18/2013

10

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: NE-02-4 Date Collected: 12/26/12 11:26							Lab S		ix: Solid
Date Received: 12/26/12 17:05						_		Percent Soli	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		18	4.4	ug/Kg	<del></del>	12/28/12 09:48	01/04/13 13:56	10
Methoxychlor	ND		34	4.7	ug/Kg	₽	12/28/12 09:48	01/04/13 13:56	10
Toxaphene	ND		700	160	ug/Kg	\$	12/28/12 09:48	01/04/13 13:56	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79	D	63 - 124				12/28/12 09:48	01/04/13 13:56	10
Tetrachloro-m-xylene	60	D	59 <sub>-</sub> 115				12/28/12 09:48	01/04/13 13:56	10

Client Sample ID: NE-02-9							Lab S	Sample ID: 280-	37374-7
Date Collected: 12/26/12 11:32								Matri	x: Solid
Date Received: 12/26/12 17:05								Percent Soli	ds: 96.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		8.6	2.8	ug/Kg	*	12/28/12 09:48	01/04/13 14:46	5
4,4'-DDE	18		8.6	1.2	ug/Kg	₽	12/28/12 09:48	01/04/13 14:46	5
4,4'-DDT	40		8.6	3.0	ug/Kg	₽	12/28/12 09:48	01/04/13 14:46	5
Aldrin	ND		8.6	1.3	ug/Kg	₽	12/28/12 09:48	01/04/13 14:46	5
alpha-BHC	ND		8.6	1.1	ug/Kg	₽	12/28/12 09:48	01/04/13 14:46	5
beta-BHC	ND		8.6	3.3	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Chlordane (n.o.s.)	ND		8.6	1.1	ug/Kg		12/28/12 09:48	01/04/13 14:46	5
delta-BHC	ND		8.6	2.0	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Dieldrin	ND		8.6	1.1	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Endosulfan I	ND		8.6	0.89	ug/Kg		12/28/12 09:48	01/04/13 14:46	5
Endosulfan II	ND		8.6	1.4	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Endosulfan sulfate	ND		8.6	1.4	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Endrin	ND		8.6	1.5	ug/Kg		12/28/12 09:48	01/04/13 14:46	5
Endrin aldehyde	ND		8.6	0.86	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
gamma-BHC (Lindane)	ND		8.6	2.3	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Heptachlor	ND		8.6	1.1	ug/Kg		12/28/12 09:48	01/04/13 14:46	5
Heptachlor epoxide	ND		8.6	2.1	ug/Kg	₩	12/28/12 09:48	01/04/13 14:46	5
Methoxychlor	ND		17	2.3	ug/Kg	₽	12/28/12 09:48	01/04/13 14:46	5
Toxaphene	ND		340	80	ug/Kg	₩.	12/28/12 09:48	01/04/13 14:46	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98	D	63 - 124				12/28/12 09:48	01/04/13 14:46	5
Tetrachloro-m-xylene	89	D	59 <sub>-</sub> 115				12/28/12 09:48	01/04/13 14:46	5

### Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SW-01-0	•									
Date Collected: 12/26/12 08:03							Matrix: Solid			
Date Received: 12/26/12 17:05							Percent Soli	ds: 90.4		
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
PCB-1016	ND ND	34	5.2	ug/Kg	<del>*</del>	12/28/12 09:48	01/03/13 03:33	1		
PCB-1221	ND	48	16	ug/Kg	₽	12/28/12 09:48	01/03/13 03:33	1		
PCB-1232	ND	34	5.2	ug/Kg	₩	12/28/12 09:48	01/03/13 03:33	1		
PCB-1242	ND	34	9.3	ug/Kg	\$	12/28/12 09:48	01/03/13 03:33	1		
PCB-1248	ND	34	5.7	ug/Kg	₩	12/28/12 09:48	01/03/13 03:33	1		
PCB-1254	61	34	5.7	ug/Kg	₽	12/28/12 09:48	01/03/13 03:33	1		
PCB-1260	64	34	2.7	ug/Kg	\$	12/28/12 09:48	01/03/13 03:33	1		
PCB-1262	ND	34	12	ug/Kg	₩	12/28/12 09:48	01/03/13 03:33	1		

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: SW-01-0 Date Collected: 12/26/12 08:03							Lab		x: Soli
Date Received: 12/26/12 17:05								Percent Soli	ds: 90.
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1268	ND		34	4.0	ug/Kg	₩	12/28/12 09:48	01/03/13 03:33	
Polychlorinated biphenyls, Total	120		34	2.7	ug/Kg	<b>‡</b>	12/28/12 09:48	01/03/13 03:33	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
DCB Decachlorobiphenyl	58	X	59 - 130				12/28/12 09:48	01/03/13 03:33	
Tetrachloro-m-xylene	82		53 - 128				12/28/12 09:48	01/03/13 03:33	
Client Sample ID: SW-01-4							Lab S	Sample ID: 280-	37374-
Date Collected: 12/26/12 08:12								Matri	x: Soli
Date Received: 12/26/12 17:05								Percent Soli	ds: 91.
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1016	ND		36	5.5	ug/Kg	*	12/28/12 09:48	01/03/13 03:54	
PCB-1221	ND		51	17	ug/Kg	₽	12/28/12 09:48	01/03/13 03:54	
PCB-1232	ND		36	5.6	ug/Kg	₽	12/28/12 09:48	01/03/13 03:54	
PCB-1242	ND		36	9.9	ug/Kg	\$	12/28/12 09:48	01/03/13 03:54	
PCB-1248	ND		36	6.1	ug/Kg	₽	12/28/12 09:48	01/03/13 03:54	
PCB-1254	ND		36	6.0	ug/Kg	₽	12/28/12 09:48	01/03/13 03:54	
PCB-1260	ND		36	2.9	ug/Kg	φ-	12/28/12 09:48	01/03/13 03:54	
PCB-1262	ND		36	13	ug/Kg	₽	12/28/12 09:48	01/03/13 03:54	
PCB-1268	ND		36	4.3		₽	12/28/12 09:48	01/03/13 03:54	
Polychlorinated biphenyls, Total	ND		36	2.9	ug/Kg		12/28/12 09:48	01/03/13 03:54	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
DCB Decachlorobiphenyl	62		59 - 130				12/28/12 09:48	01/03/13 03:54	
Tetrachloro-m-xylene	87		53 - 128				12/28/12 09:48	01/03/13 03:54	
Client Sample ID: SW-01-11							Lab S	Sample ID: 280-	37374-
Date Collected: 12/26/12 08:19								Matri	x: Soli
Date Received: 12/26/12 17:05								Percent Soli	ds: 97.
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1016	ND		31	4.8	ug/Kg	<u> </u>	12/28/12 09:48	01/03/13 04:16	
PCB-1221	ND		45	15	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
PCB-1232	ND		31	4.9	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
PCB-1242	ND		31	8.7	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
PCB-1248	ND		31	5.3	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
PCB-1254	ND		31	5.3	ug/Kg	☼	12/28/12 09:48	01/03/13 04:16	
PCB-1260	ND		31	2.5	ug/Kg	\$	12/28/12 09:48	01/03/13 04:16	
PCB-1262	ND		31	11	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
PCB-1268	ND		31	3.8	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
Polychlorinated biphenyls, Total	ND		31	2.5	ug/Kg	₽	12/28/12 09:48	01/03/13 04:16	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
	77		59 - 130				12/28/12 09:48	01/03/13 04:16	
DCB Decachlorobiphenyl	//						12/28/12 09:48	01/03/13 04:16	
	93		53 - 128					0 0 0 0	
DCB Decachlorobiphenyl			53 - 128					Sample ID: 280-	37374-
DCB Decachlorobiphenyl Tetrachloro-m-xylene			53 - 128					Sample ID: 280-	
DCB Decachlorobiphenyl Tetrachloro-m-xylene Client Sample ID: NE-02-0			53 - 128					Sample ID: 280-	x: Soli
DCB Decachlorobiphenyl Tetrachloro-m-xylene Client Sample ID: NE-02-0 Date Collected: 12/26/12 11:14	93	Qualifier	53 <sub>-</sub> 128 <b>RL</b>	MDL	Unit	D		Sample ID: 280- Matri	x: Solid ds: 92.
DCB Decachlorobiphenyl Tetrachloro-m-xylene Client Sample ID: NE-02-0 Date Collected: 12/26/12 11:14 Date Received: 12/26/12 17:05	93	Qualifier			Unit ug/Kg	D	Lab S	Sample ID: 280- Matri Percent Soli	x: Soli

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2

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12

13

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Polychlorinated biphenyls, Total

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: NE-02-0	Lab Sample ID: 280-37374-5
Date Collected: 12/26/12 11:14	Matrix: Solid

Date Received: 12/26/12 17:05								Percent Soli	ds: 92.3
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		33	5.2	ug/Kg	*	12/28/12 09:48	01/03/13 04:37	1
PCB-1242	ND		33	9.2	ug/Kg	\$	12/28/12 09:48	01/03/13 04:37	1
PCB-1248	ND		33	5.7	ug/Kg	₽	12/28/12 09:48	01/03/13 04:37	1
PCB-1254	ND		33	5.6	ug/Kg	₽	12/28/12 09:48	01/03/13 04:37	1
PCB-1260	ND		33	2.7	ug/Kg	₽	12/28/12 09:48	01/03/13 04:37	1
PCB-1262	ND		33	12	ug/Kg	₽	12/28/12 09:48	01/03/13 04:37	1
PCB-1268	ND		33	4.0	ug/Kg	₽	12/28/12 09:48	01/03/13 04:37	1
Polychlorinated biphenyls, Total	ND		33	2.7	ug/Kg	ф	12/28/12 09:48	01/03/13 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Pro	epared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		59 - 130	12/28	3/12 09:48	01/03/13 04:37	1
Tetrachloro-m-xylene	74		53 - 128	12/28	3/12 09:48	01/03/13 04:37	1

Client Sample ID: NE-02-4 Lab Sample ID: 280-37374-6 Date Collected: 12/26/12 11:26 **Matrix: Solid** 

Date Received: 12/26/12 17:05 Percent Solids: 91.6 Result Qualifier RL Analyte MDL Unit Prepared Analyzed Dil Fac PCB-1016 ₩ ND 34 5.3 ug/Kg 12/28/12 09:48 01/03/13 04:58 PCB-1221 ND 49 16 ug/Kg 12/28/12 09:48 01/03/13 04:58 PCB-1232 ND 34 5.3 ug/Kg 12/28/12 09:48 01/03/13 04:58 PCB-1242 ND 34 9.5 ug/Kg 12/28/12 09:48 01/03/13 04:58 PCB-1248 ND 34 5.9 ug/Kg 12/28/12 09:48 01/03/13 04:58 PCB-1254 ND 34 5.8 ug/Kg 12/28/12 09:48 01/03/13 04:58 PCB-1260 ND 34 2.8 ug/Kg 12/28/12 09:48 01/03/13 04:58 ₩ PCB-1262 ND 34 12/28/12 09:48 01/03/13 04:58 12 ug/Kg PCB-1268 4.1 ug/Kg ND 34 12/28/12 09:48 01/03/13 04:58

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		59 - 130	12/28/12 09:48	01/03/13 04:58	1
Tetrachloro-m-xylene	82		53 - 128	12/28/12 09:48	01/03/13 04:58	1

34

2.8 ug/Kg

12/28/12 09:48

01/03/13 04:58

ND

Client Sample ID: NE-02-9 Lab Sample ID: 280-37374-7 Date Collected: 12/26/12 11:32 **Matrix: Solid** 

Date Received: 12/26/12 17:05								Percent Soli	ds: 96.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		33	5.1	ug/Kg	*	12/28/12 09:48	01/03/13 06:02	1
PCB-1221	ND		47	16	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1232	ND		33	5.2	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1242	ND		33	9.2	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1248	ND		33	5.7	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1254	ND		33	5.6	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1260	ND		33	2.7	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1262	ND		33	12	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
PCB-1268	ND		33	4.0	ug/Kg	₩	12/28/12 09:48	01/03/13 06:02	1
Polychlorinated biphenyls, Total	ND		33	2.7	ug/Kg	₽	12/28/12 09:48	01/03/13 06:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		59 - 130	12/28/12 09:48	01/03/13 06:02	1
Tetrachloro-m-xylene	90		53 - 128	12/28/12 09:48	01/03/13 06:02	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8151A - Herbicides (GC)

Data Callantada 40/00/40 00:00							Lab	Sample ID: 280-	
Date Collected: 12/26/12 08:03									x: Solid
Date Received: 12/26/12 17:05 Analyte	Popult	Qualifier	RL	MDL	Unit	D	Prepared	Percent Soli  Analyzed	ds: 90.4 Dil Fac
2,4-D	ND	Qualifier	430			— <del>¤</del>	01/02/13 12:00	01/04/13 13:51	- DII Fac
•					ug/Kg	₩			_
Dinoseb	ND		65		ug/Kg		01/02/13 12:00	01/04/13 13:51	5
2,4,5-T	ND		110		ug/Kg	₽	01/02/13 12:00	01/04/13 13:51	5
Silvex (2,4,5-TP)	ND		110	7.6	ug/Kg	₩	01/02/13 12:00	01/04/13 13:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	90	D	31 - 105				01/02/13 12:00	01/04/13 13:51	5
Client Sample ID: SW-01-4							Lab S	Sample ID: 280-	37374-2
Client Sample ID: SW-01-4 Date Collected: 12/26/12 08:12							Lab S		x: Solid
	Result	Qualifier	RL	MDL	Unit	D	Lab \$	-	x: Solid ds: 91.0
Date Collected: 12/26/12 08:12 Date Received: 12/26/12 17:05	Result ND	Qualifier		MDL 15	Unit ug/Kg	<u>D</u>		Matri Percent Soli	x: Solid ds: 91.0
Date Collected: 12/26/12 08:12 Date Received: 12/26/12 17:05 Analyte		Qualifier		15			Prepared	Matri Percent Soli Analyzed	x: Solid ds: 91.0
Date Collected: 12/26/12 08:12 Date Received: 12/26/12 17:05 Analyte 2,4-D	ND	Qualifier	83	15 1.5	ug/Kg	<del></del>	Prepared 01/02/13 12:00	Matri Percent Soli Analyzed	x: Solid
Date Collected: 12/26/12 08:12 Date Received: 12/26/12 17:05 Analyte 2,4-D Dinoseb	ND ND	Qualifier	83 12	15 1.5 2.4	ug/Kg ug/Kg	<del></del>	Prepared 01/02/13 12:00 01/02/13 12:00	Matri Percent Soli Analyzed 01/04/13 15:00 01/04/13 15:00	x: Solid ds: 91.0
Date Collected: 12/26/12 08:12  Date Received: 12/26/12 17:05  Analyte  2,4-D  Dinoseb  2,4,5-T	ND ND ND		83 12 21	15 1.5 2.4	ug/Kg ug/Kg ug/Kg	<del>*</del> *	Prepared 01/02/13 12:00 01/02/13 12:00 01/02/13 12:00	Matri Percent Soli Analyzed 01/04/13 15:00 01/04/13 15:00 01/04/13 15:00	x: Solid ds: 91.0

Client Sample ID: SW-01-11							Lab S	Sample ID: 280-	37374-3
Date Collected: 12/26/12 08:19	)							Matri	x: Solid
Date Received: 12/26/12 17:05	;							Percent Soli	ds: 97.6
Analyte	Result 0	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND ND		79	14	ug/Kg	<del>\</del>	01/02/13 12:00	01/04/13 15:23	1
Dinoseb	ND		12	1.4	ug/Kg	₽	01/02/13 12:00	01/04/13 15:23	1
2,4,5-T	ND		20	2.3	ug/Kg	₽	01/02/13 12:00	01/04/13 15:23	1
Silvex (2,4,5-TP)	ND		20	1.4	ug/Kg	\$	01/02/13 12:00	01/04/13 15:23	1
Surrogate	%Recovery (	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2.4-Dichlorophenylacetic acid	73		31 - 105				01/02/13 12:00	01/04/13 15:23	

te Collected: 12/26/12 11:14 te Received: 12/26/12 17:05 alyte		Qualifier	RL	MDI				Matri Percent Soli	x: Solid ds: 92.3
alyte		Qualifier	RI	MDI				Percent Soli	ds: 92.3
<u> </u>		Qualifier	RI	MDI					
-D	ND			MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND		430	75	ug/Kg	₩	01/02/13 12:00	01/04/13 15:45	5
noseb	ND		64	7.5	ug/Kg	₽	01/02/13 12:00	01/04/13 15:45	5
,5-T	ND		110	12	ug/Kg	₽	01/02/13 12:00	01/04/13 15:45	5
vex (2,4,5-TP)	ND		110	7.5	ug/Kg	₽	01/02/13 12:00	01/04/13 15:45	5
rrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Dichlorophenylacetic acid	77	D	31 - 105				01/02/13 12:00	01/04/13 15:45	5
rrogate	%Recovery		Limits	7.5	ug/K	g	g 🌣	Prepared 01/02/13 12:00	Prepared Analyzed

Date Collected: 12/26/12 11:26							Matr	ix: Solid
Date Received: 12/26/12 17:05							Percent Soli	ds: 91.6
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	84	15	ug/Kg	₩	01/02/13 12:00	01/04/13 16:08	1
Dinoseb	ND	13	1.5	ug/Kg	₽	01/02/13 12:00	01/04/13 16:08	1
2,4,5-T	ND	21	2.4	ug/Kg	₩	01/02/13 12:00	01/04/13 16:08	1

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# **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25

Method: 8151A - Herbicides (GC) (Continued)

Client Sample ID: NE-02-4 Date Collected: 12/26/12 11:26 Date Received: 12/26/12 17:05							Lab \$	Sample ID: 280- Matri Percent Soli	ix: Solid
Analyte Silvex (2,4,5-TP)	Result ND	Qualifier	RL	MDL 1.5	Unit ug/Kg	<u>D</u>	Prepared 01/02/13 12:00	Analyzed 01/04/13 16:08	Dil Fac
Surrogate 2,4-Dichlorophenylacetic acid	%Recovery	Qualifier	Limits 31 - 105				Prepared 01/02/13 12:00	<b>Analyzed</b> 01/04/13 16:08	Dil Fac

Client Sample ID: NE-02-9							Lab S	Sample ID: 280-	37374-7
Date Collected: 12/26/12 11:32	2							Matri	ix: Solid
Date Received: 12/26/12 17:05	5							Percent Soli	ds: 96.6
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		82	14	ug/Kg	\$	01/02/13 12:00	01/04/13 16:31	1
Dinoseb	ND		12	1.4	ug/Kg	₽	01/02/13 12:00	01/04/13 16:31	1
2,4,5-T	ND		21	2.4	ug/Kg	₽	01/02/13 12:00	01/04/13 16:31	1
Silvex (2,4,5-TP)	ND		21	1.4	ug/Kg	₽	01/02/13 12:00	01/04/13 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	64		31 - 105				01/02/13 12:00	01/04/13 16:31	

Method: 6010B - Metals (ICP)

Client Sample ID: SW-01-0 Date Collected: 12/26/12 08:03 Date Received: 12/26/12 17:05							Lab S	Sample ID: 280- Matri Percent Soli	x: Solid
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3500		1900	620	ug/Kg	<del>\</del>	12/28/12 12:00	12/31/12 18:15	1
Barium	160000		940	71	ug/Kg	₽	12/28/12 12:00	12/31/12 18:15	1
Cadmium	170	J	470	38	ug/Kg	₩	12/28/12 12:00	12/31/12 18:15	1
Chromium	10000		1400	54	ug/Kg	\$	12/28/12 12:00	12/31/12 18:15	1
Lead	35000		750	250	ug/Kg	₩	12/28/12 12:00	12/31/12 18:15	1
Selenium	880	J	1200	810	ug/Kg	₩	12/28/12 12:00	12/31/12 18:15	1
Silver	ND		940	150	ug/Kg	₽	12/28/12 12:00	12/31/12 18:15	1

Client Sample ID: SW-01-4 Date Collected: 12/26/12 08:12							Lab S		x: Solid
Date Received: 12/26/12 17:05 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Percent Soli  Analyzed	ds: 91.0 Dil Fac
Arsenic	6000		2200		ug/Kg	— <del>*</del>	12/28/12 12:00	12/31/12 18:32	1
Barium	110000		1100	83	ug/Kg	₽	12/28/12 12:00	12/31/12 18:32	1
Cadmium	76	J	540	45	ug/Kg	₩	12/28/12 12:00	12/31/12 18:32	1
Chromium	8400		1600	63	ug/Kg	₩	12/28/12 12:00	12/31/12 18:32	1
Lead	37000		870	290	ug/Kg	₩	12/28/12 12:00	12/31/12 18:32	1
Selenium	ND		1400	940	ug/Kg	₩	12/28/12 12:00	12/31/12 18:32	1
Silver	ND		1100	170	ug/Kg	₩.	12/28/12 12:00	12/31/12 18:32	1

Client Sample ID: SW-01-11							Lab S	Sample ID: 280-	37374-3
Date Collected: 12/26/12 08:19								Matri	x: Solid
Date Received: 12/26/12 17:05								Percent Soli	ds: 97.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	800	J	1800	590	ug/Kg	\$	12/28/12 12:00	12/31/12 18:35	1
Barium	19000		890	68	ug/Kg	₩	12/28/12 12:00	12/31/12 18:35	1
Cadmium	ND		450	37	ug/Kg	₩	12/28/12 12:00	12/31/12 18:35	1
Chromium	1100	J	1300	52	ug/Kg	₽	12/28/12 12:00	12/31/12 18:35	1

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Client: RMC Consultants Inc

Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: SW-01-11							Lab S	Sample ID: 280-	-37374-3
Date Collected: 12/26/12 08:19								Matr	ix: Solid
Date Received: 12/26/12 17:05								Percent Soli	ds: 97.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1500		710	240	ug/Kg	₩	12/28/12 12:00	12/31/12 18:35	1

ND 1200 770 ug/Kg 12/28/12 12:00 12/31/12 18:35 Selenium Silver ND 890 140 ug/Kg 12/28/12 12:00 12/31/12 18:35

Client Sample ID: SW-01-GW Lab Sample ID: 280-37374-4 Date Collected: 12/26/12 09:45 **Matrix: Water** Date Received: 12/26/12 17:05

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2 J	15	4.4	ug/L		12/28/12 07:30	12/28/12 19:46	1
Barium	430	10	0.58	ug/L		12/28/12 07:30	12/28/12 19:46	1
Cadmium	0.68 J	5.0	0.45	ug/L		12/28/12 07:30	12/28/12 19:46	1
Chromium	28	10	0.66	ug/L		12/28/12 07:30	12/28/12 19:46	1
Lead	21	9.0	2.6	ug/L		12/28/12 07:30	12/28/12 19:46	1
Selenium	12 J	15	4.9	ug/L		12/28/12 07:30	12/28/12 19:46	1
Silver	ND	10	0.93	ug/L		12/28/12 07:30	12/28/12 19:46	1

Client Sample ID: NE-02-0 Lab Sample ID: 280-37374-5 Date Collected: 12/26/12 11:14 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 92.3

Date (1000) 100								i di donit don	40. <b>02.</b> 0
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6000		2100	710	ug/Kg	<del>\$</del>	12/28/12 12:00	12/31/12 18:37	1
Barium	330000		1100	81	ug/Kg	₽	12/28/12 12:00	12/31/12 18:37	1
Cadmium	520	J	540	44	ug/Kg	₽	12/28/12 12:00	12/31/12 18:37	1
Chromium	10000		1600	62	ug/Kg	₽	12/28/12 12:00	12/31/12 18:37	1
Lead	170000		860	290	ug/Kg	₽	12/28/12 12:00	12/31/12 18:37	1
Selenium	1300	J	1400	920	ug/Kg	₽	12/28/12 12:00	12/31/12 18:37	1
Silver	400	J	1100	170	ug/Kg	₩	12/28/12 12:00	12/31/12 18:37	1

Client Sample ID: NE-02-4 Lab Sample ID: 280-37374-6 Date Collected: 12/26/12 11:26 **Matrix: Solid** 

Date Received: 12/26/12 17:05								Percent Soli	ds: 91.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3900		2100	700	ug/Kg	<del>\</del>	12/28/12 12:00	12/31/12 18:39	1
Barium	100000		1100	81	ug/Kg	₩	12/28/12 12:00	12/31/12 18:39	1
Cadmium	120	J	530	43	ug/Kg	₩	12/28/12 12:00	12/31/12 18:39	1
Chromium	9000		1600	61	ug/Kg	*	12/28/12 12:00	12/31/12 18:39	1
Lead	28000		850	290	ug/Kg	₩	12/28/12 12:00	12/31/12 18:39	1
Selenium	ND		1400	910	ug/Kg	₩	12/28/12 12:00	12/31/12 18:39	1
Silver	ND		1100	170	ug/Kg	₩.	12/28/12 12:00	12/31/12 18:39	1

Lab Sample ID: 280-37374-7 Client Sample ID: NE-02-9 Date Collected: 12/26/12 11:32 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 96.6 Analyte Result Qualifier RL MDL Unit D Prepared Dil Fac Analyzed ₩ 2000 Arsenic 2100 660 ug/Kg 12/28/12 12:00 12/31/12 18:41 **Barium** 34000 1000 ug/Kg 12/28/12 12:00 12/31/12 18:41 76 ₩ Cadmium 48 500 ug/Kg 12/28/12 12:00 12/31/12 18:41 Chromium 3300 1500 58 ug/Kg 12/28/12 12:00 12/31/12 18:41 270 ug/Kg 12/31/12 18:41 Lead 8100 800 12/28/12 12:00 Selenium ND 1300 860 ug/Kg 12/28/12 12:00 12/31/12 18:41

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Client: RMC Consultants Inc

Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Client Sample ID: NE-02-9 Lab Sample ID: 280-37374-7 **Matrix: Solid** 

Date Collected: 12/26/12 11:32

Date Received: 12/26/12 17:05 Percent Solids: 96.6 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ₩ Silver ND 1000 160 ug/Kg 12/28/12 12:00 12/31/12 18:41

Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8 Date Collected: 12/26/12 13:05 **Matrix: Water** 

Date Received: 12/26/12 17:05									
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 07:30	12/28/12 19:56	1
Barium	310		10	0.58	ug/L		12/28/12 07:30	12/28/12 19:56	1
Cadmium	0.58	J	5.0	0.45	ug/L		12/28/12 07:30	12/28/12 19:56	1
Chromium	38		10	0.66	ug/L		12/28/12 07:30	12/28/12 19:56	1
Lead	11		9.0	2.6	ug/L		12/28/12 07:30	12/28/12 19:56	1
Selenium	9.7	J	15	4.9	ug/L		12/28/12 07:30	12/28/12 19:56	1
Silver	ND		10	0.93	ug/L		12/28/12 07:30	12/28/12 19:56	1

Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: SW-01-GW Lab Sample ID: 280-37374-4 **Matrix: Water** 

Date Collected: 12/26/12 09:45

Date Received: 12/26/12 17:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 12:00	12/31/12 20:11	1
Barium	170	В	10	0.58	ug/L		12/28/12 12:00	12/31/12 20:11	1
Cadmium	ND		5.0	0.45	ug/L		12/28/12 12:00	12/31/12 20:11	1
Chromium	1.3	J	10	0.66	ug/L		12/28/12 12:00	12/31/12 20:11	1
Lead	ND		9.0	2.6	ug/L		12/28/12 12:00	12/31/12 20:11	1
Selenium	11	J	15	4.9	ug/L		12/28/12 12:00	12/31/12 20:11	1
Silver	ND		10	0.93	ug/L		12/28/12 12:00	12/31/12 20:11	1

Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8 Date Collected: 12/26/12 13:05 **Matrix: Water** 

Date Received: 12/26/12 17:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 12:00	12/31/12 20:19	1
Barium	150	В	10	0.58	ug/L		12/28/12 12:00	12/31/12 20:19	1
Cadmium	0.49	J	5.0	0.45	ug/L		12/28/12 12:00	12/31/12 20:19	1
Chromium	0.85	J	10	0.66	ug/L		12/28/12 12:00	12/31/12 20:19	1
Lead	ND		9.0	2.6	ug/L		12/28/12 12:00	12/31/12 20:19	1
Selenium	9.6	J	15	4.9	ug/L		12/28/12 12:00	12/31/12 20:19	1
Silver	ND		10	0.93	ug/L		12/28/12 12:00	12/31/12 20:19	1

Method: 7470A - Mercury (CVAA)

Client Sample ID: SW-01-GW Lab Sample ID: 280-37374-4

Date Collected: 12/26/12 09:45 Data Bassiyadi 42/26/42 47:05

Date Received: 12/26/12 17:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.20	0.027	ug/L		12/28/12 11:15	12/28/12 15:52	1	

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**Matrix: Water** 

Client Sample Results Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25 Method: 7470A - Mercury (CVAA) Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8 Date Collected: 12/26/12 13:05 **Matrix: Water** Date Received: 12/26/12 17:05 RΙ MDL Unit D Dil Fac Analyte Result Qualifier Prepared Analyzed Mercury ND 0.20 0.027 ug/L 12/28/12 11:15 12/28/12 15:54 Method: 7470A - Mercury (CVAA) - Dissolved Client Sample ID: SW-01-GW Lab Sample ID: 280-37374-4 Date Collected: 12/26/12 09:45 **Matrix: Water** Date Received: 12/26/12 17:05 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 0.027 ug/L ND 0.20 12/28/12 11:15 12/28/12 15:29 Mercury Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8 Date Collected: 12/26/12 13:05 **Matrix: Water** Date Received: 12/26/12 17:05 Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Mercury ND 0.20 0.027 ug/L 12/28/12 11:15 12/28/12 15:31 Method: 7471A - Mercury (CVAA) Client Sample ID: SW-01-0 Lab Sample ID: 280-37374-1 Date Collected: 12/26/12 08:03 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 90.4 MDL Unit Analyte Result Qualifier RL D Analyzed Dil Fac Prepared 17 01/02/13 11:30 5.5 ug/Kg 01/02/13 18:57 Mercury 19 Client Sample ID: SW-01-4 Lab Sample ID: 280-37374-2 Date Collected: 12/26/12 08:12 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 91.0 Analyte Result Qualifier MDL Unit D Analyzed RLPrepared Dil Fac ₩ 20 01/02/13 11:30 01/02/13 19:08 Mercury 6.6 ug/Kg 20 Client Sample ID: SW-01-11 Lab Sample ID: 280-37374-3 Date Collected: 12/26/12 08:19 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 97.6 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed ₩ Mercury ND 17 ug/Kg 01/02/13 11:30 01/02/13 19:11 5.7 Client Sample ID: NE-02-0 Lab Sample ID: 280-37374-5 Date Collected: 12/26/12 11:14 **Matrix: Solid** 

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Percent Solids: 92.3

Percent Solids: 91.6

Dil Fac

Dil Fac

**Matrix: Solid** 

Analyzed

01/02/13 19:13

Lab Sample ID: 280-37374-6

Analyzed

01/02/13 19:15

RL

18

RL

20

Result Qualifier

Result Qualifier

ū

14

580

MDL Unit

MDL Unit

6.4 ug/Kg

ug/Kg

6.0

D

Prepared

01/02/13 11:30

Prepared

01/02/13 11:30

Date Received: 12/26/12 17:05

Client Sample ID: NE-02-4

Date Collected: 12/26/12 11:26

Date Received: 12/26/12 17:05

Analyte

Mercury

Analyte

Mercury

Client Sample Results Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25 Method: 7471A - Mercury (CVAA) Client Sample ID: NE-02-9 Lab Sample ID: 280-37374-7 Date Collected: 12/26/12 11:32 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 96.6 Result Qualifier RL MDL Unit D Analyzed Dil Fac Analyte Prepared ₩ 17 5.6 ug/Kg 01/02/13 11:30 01/02/13 19:18 Mercury 9.0 J **General Chemistry** 

RL

0.10

0.10

RL

0.10

0.10

RL

0.10

RL Unit

0.10 %

0.10

RL Unit

0.10 %

0.10 %

**RL** Unit

RL Unit

0.10 %

0.10 %

0.10 %

D

D

D

Prepared

Prepared

Prepared

Prepared

Result Qualifier

Result Qualifier

Result Qualifier

Result Qualifier

7.7

92

2.4

9.0

91

9.6

90

Client Sample ID: SW-01-0

Client Sample ID: SW-01-4

Date Collected: 12/26/12 08:12

Date Received: 12/26/12 17:05

Client Sample ID: SW-01-11

Date Collected: 12/26/12 08:19

Date Received: 12/26/12 17:05

Analyte

Analyte

Analyte

Analyte

**Percent Moisture** 

**Percent Solids** 

**Percent Moisture** 

**Percent Moisture** 

**Percent Moisture** 

**Percent Solids** 

**Percent Solids** 

Date Collected: 12/26/12 08:03

Date Received: 12/26/12 17:05

Lab Sample ID: 280-37374-1 **Matrix: Solid** 

Analyzed

12/28/12 14:26

Analyzed

12/28/12 14:26

12/28/12 14:26

Lab Sample ID: 280-37374-3

Analyzed

12/28/12 14:26

Dil Fac 12/28/12 14:26

Lab Sample ID: 280-37374-2 **Matrix: Solid** 

Dil Fac

Dil Fac

**Matrix: Solid** 

Percent Solids	98		0.10	0.10	%			12/28/12 14:26	1
Client Sample ID: SW-01-GW Date Collected: 12/26/12 09:45							Lab \$	Sample ID: 280- Matrix	37374-4 c: Water
Date Received: 12/26/12 17:05 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		8.7		mg/L	- <del>-</del>	01/04/13 13:00	01/04/13 16:24	1
Total Suspended Solids	1400		40	11	mg/L			12/28/12 16:10	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.05	HF	0.100	0.100	SU			12/29/12 12:14	1
Temperature	20.0	HF	1.00	1.00	Degrees C			12/29/12 12:14	1
Client Sample ID: NE-02-0							Lab S	Sample ID: 280-	37374-5
Date Collected: 12/26/12 11:14								•	x: Solid
Date Received: 12/26/12 17:05									

Dil Fac Analyzed 12/28/12 14:26 12/28/12 14:26

Client Sample ID: NE-02-4 Lab Sample ID: 280-37374-6 Date Collected: 12/26/12 11:26 **Matrix: Solid** Date Received: 12/26/12 17:05

RL

0.10

0.10

Analyte Result Qualifier RL RL Unit D Dil Fac Prepared Analyzed **Percent Moisture** 0.10 0.10 % 12/28/12 14:26 8.4 0.10 0.10 12/28/12 14:26 **Percent Solids** 92

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## **Client Sample Results**

Client: RMC Consultants Inc TestAmerica Job ID: 280-37374-2 Project/Site: U.S.6 at I-25

**General Chemistry** 

Client Sample ID: NE-02-9 Lab Sample ID: 280-37374-7 **Matrix: Solid** 

Date Collected: 12/26/12 11:32 Date Received: 12/26/12 17:05

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.10	0.10	%			12/28/12 14:26	1
Percent Solids	97		0.10	0.10	%			12/28/12 14:26	1

Client Sample ID: NE-02-GW Lab Sample ID: 280-37374-8 **Matrix: Water** 

Date Collected: 12/26/12 13:05

Date Received: 12/26/12 17:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		9.1	2.5	mg/L		01/04/13 13:00	01/04/13 16:24	1
Total Suspended Solids	1000		40	11	mg/L			12/28/12 16:10	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	7.24	HF	0.100	0.100	SU			12/29/12 12:15	1
Temperature	20.0	HF	1.00	1.00	Degrees C			12/29/12 12:15	1

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-153919/1-A

**Matrix: Solid** 

Analysis Batch: 153872

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 153919** 

	MB								
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	5.4	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
2-Butanone (MEK)	ND		20		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Benzene	ND		5.0	0.47	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chlorobenzene	ND		5.0	0.54	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Carbon disulfide	ND		5.0	0.42	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Cyclohexane	ND		5.0	0.40	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Bromomethane	ND		10	0.50	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Bromoform	ND		5.0	0.23	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chloroethane	ND		10	0.89	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chloroform	ND		10	0.29	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chlorobromomethane	ND		5.0	0.30	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Dichlorobromomethane	ND		5.0	0.22	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chlorodibromomethane	ND		5.0	0.57	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Isopropylbenzene	ND		5.0	0.59	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
2-Hexanone	ND		20	4.9	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Chloromethane	ND		10	0.77	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Dichlorodifluoromethane	ND		10		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
trans-1,2-Dichloroethene	ND		2.5		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methylene Chloride	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methyl acetate	ND		10		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methyl tert-butyl ether	ND		20		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Methylcyclohexane	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Styrene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Toluene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	· · 1
1,1,1-Trichloroethane	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Trichloroethene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	· · · · · · · · · · · · · · · · · · ·
1,1,2-Trichlorotrifluoroethane	ND		20		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Vinyl chloride	ND		5.0		ug/Kg ug/Kg		12/27/12 06:00	12/27/12 11:35	1
m-Xylene & p-Xylene o-Xylene	ND ND		2.5 2.5		ug/Kg		12/27/12 06:00	12/27/12 11:35 12/27/12 11:35	1
•					ug/Kg		12/27/12 06:00		1
Tetrachloroethene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
cis-1,2-Dichloroethene	ND		2.5		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1-Dichloroethane	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,1-Dichloroethene	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dichloroethane	ND		5.0		ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dichloropropane	ND		5.0	0.55	ug/Kg		12/27/12 06:00	12/27/12 11:35	1

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 280-153919/1-A

Lab Sample ID: LCS 280-153919/2-A

**Matrix: Solid** 

Matrix: Solid

Analysis Batch: 153872

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 153919** 

Analyte	Result Qual	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND	500	56	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Ethylbenzene	ND	5.0	0.67	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
1,2-Dibromoethane	ND	5.0	0.52	ug/Kg		12/27/12 06:00	12/27/12 11:35	1
Trichlorofluoromethane	ND	10	1.0	ug/Kg		12/27/12 06:00	12/27/12 11:35	1

	MB MB				
Surrogate %	Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94	58 - 140	12/27/12 06:00	12/27/12 11:35	1
Toluene-d8 (Surr)	111	80 - 126	12/27/12 06:00	12/27/12 11:35	1
4-Bromofluorobenzene (Surr)	107	76 - 127	12/27/12 06:00	12/27/12 11:35	1
Dibromofluoromethane (Surr)	92	75 - 121	12/27/12 06:00	12/27/12 11:35	1

Client Sample ID: Lab Control Sample **Prep Type: Total/NA** 

Analysis Batch: 153872					Prep Batch: 15391
	Spike	LCS	LCS		%Rec.
Analyte	Added	Result	Qualifier Unit	D %Rec	Limits
Acetone	200	256	ug/Kg	128	65 - 150
2-Butanone (MEK)	200	305	ug/Kg	152	45 - 177
Benzene	50.0	47.9	ug/Kg	96	75 _ 135
Chlorobenzene	50.0	50.5	ug/Kg	101	78 - 135
Carbon disulfide	50.0	39.8	ug/Kg	80	45 - 150
Carbon tetrachloride	50.0	48.7	ug/Kg	97	69 - 138
1,2-Dibromo-3-Chloropropane	50.0	59.7	ug/Kg	119	66 - 150
Bromomethane	50.0	41.0	ug/Kg	82	52 - 135
Bromoform	50.0	51.8	ug/Kg	104	77 - 135
Chloroethane	50.0	37.7	ug/Kg	75	51 - 145
Chloroform	50.0	45.2	ug/Kg	90	73 - 123
Chlorobromomethane	50.0	45.3	ug/Kg	91	74 - 135
Dichlorobromomethane	50.0	51.5	ug/Kg	103	73 - 135
Chlorodibromomethane	50.0	58.2	ug/Kg	116	77 - 135
Isopropylbenzene	50.0	53.5	ug/Kg	107	74 <sub>-</sub> 137
2-Hexanone	200	255	ug/Kg	127	67 - 150
Chloromethane	50.0	47.0	ug/Kg	94	41 - 138
Dichlorodifluoromethane	50.0	38.2	ug/Kg	76	32 - 152
trans-1,2-Dichloroethene	50.0	44.2	ug/Kg	88	77 - 135
trans-1,3-Dichloropropene	50.0	54.4	ug/Kg	109	71 <sub>-</sub> 135
Methylene Chloride	50.0	46.9	ug/Kg	94	76 - 136
Methyl tert-butyl ether	50.0	41.5	ug/Kg	83	71 <sub>-</sub> 141
4-Methyl-2-pentanone (MIBK)	200	242	ug/Kg	121	69 - 150
Styrene	50.0	48.7	ug/Kg	97	76 - 135
1,1,2,2-Tetrachloroethane	50.0	57.3	ug/Kg	115	65 - 135
1,2,3-Trichlorobenzene	50.0	47.4	ug/Kg	95	62 - 135
1,2,4-Trichlorobenzene	50.0	47.6	ug/Kg	95	65 - 135
Toluene	50.0	48.5	ug/Kg	97	77 - 122
1,1,1-Trichloroethane	50.0	45.5	ug/Kg	91	70 - 135
1,1,2-Trichloroethane	50.0	48.2	ug/Kg	96	78 <sub>-</sub> 135
Trichloroethene	50.0	48.4	ug/Kg	97	77 <sub>-</sub> 135
Vinyl chloride	50.0	38.0	ug/Kg	76	43 - 145

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-153919/2-A

**Matrix: Solid** 

Analysis Batch: 153872

**Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 153919** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	100	99.6		ug/Kg		100	77 - 135	
o-Xylene	50.0	47.9		ug/Kg		96	75 <sub>-</sub> 135	
Tetrachloroethene	50.0	53.4		ug/Kg		107	76 - 135	
1,2-Dichlorobenzene	50.0	49.5		ug/Kg		99	73 - 135	
1,3-Dichlorobenzene	50.0	50.7		ug/Kg		101	69 _ 135	
1,4-Dichlorobenzene	50.0	50.5		ug/Kg		101	73 - 135	
cis-1,2-Dichloroethene	50.0	44.2		ug/Kg		88	76 - 135	
cis-1,3-Dichloropropene	50.0	61.1		ug/Kg		122	71 <sub>-</sub> 135	
1,1-Dichloroethane	50.0	45.6		ug/Kg		91	70 - 135	
1,1-Dichloroethene	50.0	53.2		ug/Kg		106	79 _ 135	
1,2-Dichloroethane	50.0	48.4		ug/Kg		97	69 - 135	
1,2-Dichloropropane	50.0	50.4		ug/Kg		101	72 - 121	
Ethylbenzene	50.0	50.0		ug/Kg		100	73 - 125	
1,2-Dibromoethane	50.0	54.0		ug/Kg		108	76 _ 135	
Trichlorofluoromethane	50.0	36.5		ug/Kg		73	48 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		58 - 140
Toluene-d8 (Surr)	108		80 - 126
4-Bromofluorobenzene (Surr)	106		76 - 127
Dibromofluoromethane (Surr)	92		75 - 121

Lab Sample ID: 280-37114-C-1-B MS

**Matrix: Solid** 

Analysis Batch: 153872

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 153919

Analysis Batch: 153872									Prep Batch: 153919
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	ND		215	256		ug/Kg	₽	104	65 - 150
2-Butanone (MEK)	ND		215	291		ug/Kg	₽	135	45 - 177
Benzene	ND		53.8	48.8		ug/Kg	₩	91	75 <sub>-</sub> 135
Chlorobenzene	ND		53.8	49.3		ug/Kg	₩	92	78 <sub>-</sub> 135
Carbon disulfide	ND		53.8	39.7		ug/Kg	₩	74	45 - 150
Carbon tetrachloride	ND		53.8	47.6		ug/Kg	₩	88	69 - 138
1,2-Dibromo-3-Chloropropane	ND		53.8	56.1		ug/Kg	₩	104	66 - 150
Bromomethane	ND		53.8	42.9		ug/Kg	₩	80	52 - 135
Bromoform	ND		53.8	49.1		ug/Kg	₩	91	77 <sub>-</sub> 135
Chloroethane	ND		53.8	39.6		ug/Kg	₩	74	51 - 145
Chloroform	ND		53.8	47.3		ug/Kg	₩	88	73 - 123
Chlorobromomethane	ND		53.8	47.2		ug/Kg	₩	88	74 <sub>-</sub> 135
Dichlorobromomethane	ND		53.8	52.8		ug/Kg	₩	98	73 - 135
Chlorodibromomethane	ND		53.8	61.2		ug/Kg	₩	114	77 - 135
Isopropylbenzene	ND		53.8	56.1		ug/Kg	₩	104	74 - 137
2-Hexanone	ND		215	234		ug/Kg	₩	109	67 _ 150
Chloromethane	ND		53.8	46.2		ug/Kg	₩	86	41 - 138
Dichlorodifluoromethane	ND		53.8	39.4		ug/Kg	₽	73	32 - 152
trans-1,2-Dichloroethene	ND		53.8	44.7		ug/Kg	₩	83	77 <sub>-</sub> 135
trans-1,3-Dichloropropene	ND		53.8	54.0		ug/Kg	₽	100	71 - 135
Methylene Chloride	ND		53.8	48.5		ug/Kg	☼	90	76 - 136

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37114-C-1-B MS

**Matrix: Solid** 

Analysis Batch: 153872

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 153919

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	ND		53.8	39.9		ug/Kg	*	74	71 - 141	
4-Methyl-2-pentanone (MIBK)	ND		215	229		ug/Kg	*	106	69 - 150	
Styrene	ND		53.8	46.4		ug/Kg	₩	86	76 - 135	
1,1,2,2-Tetrachloroethane	ND		53.8	2.79	JF	ug/Kg	*	5	65 - 135	
1,2,3-Trichlorobenzene	ND		53.8	24.9	F	ug/Kg	₩	46	62 - 135	
1,2,4-Trichlorobenzene	ND		53.8	28.3	F	ug/Kg	₩	53	65 - 135	
Toluene	ND		53.8	48.1		ug/Kg	₩	89	77 - 122	
1,1,1-Trichloroethane	ND		53.8	45.4		ug/Kg	₩	84	70 - 135	
1,1,2-Trichloroethane	ND		53.8	47.4		ug/Kg	₩	88	78 - 135	
Trichloroethene	ND		53.8	90.0	F	ug/Kg	*	167	77 _ 135	
Vinyl chloride	ND		53.8	39.9		ug/Kg	₽	74	43 - 145	
m-Xylene & p-Xylene	1.5	J	108	95.1		ug/Kg	₩	87	77 _ 135	
o-Xylene	0.89	J	53.8	45.8		ug/Kg	₽	83	75 - 135	
Tetrachloroethene	2900	E	53.8	2210	E 4	ug/Kg	₩	-1316	76 - 135	
1,2-Dichlorobenzene	ND		53.8	44.8		ug/Kg	₩	83	73 - 135	
1,3-Dichlorobenzene	ND		53.8	47.6		ug/Kg	*	88	69 - 135	
1,4-Dichlorobenzene	ND		53.8	48.0		ug/Kg	₩	89	73 - 135	
cis-1,2-Dichloroethene	ND		53.8	45.6		ug/Kg	₽	85	76 - 135	
cis-1,3-Dichloropropene	ND		53.8	62.6		ug/Kg	₽	116	71 _ 135	
1,1-Dichloroethane	ND		53.8	47.2		ug/Kg	₩	88	70 - 135	
1,1-Dichloroethene	ND		53.8	54.9		ug/Kg	₽	102	79 - 135	
1,2-Dichloroethane	ND		53.8	50.7		ug/Kg	₽	94	69 _ 135	
1,2-Dichloropropane	ND		53.8	52.3		ug/Kg	₩	97	72 - 121	
Ethylbenzene	ND		53.8	48.1		ug/Kg	₽	86	73 _ 125	
1,2-Dibromoethane	ND		53.8	54.6		ug/Kg	\$	101	76 - 135	
Trichlorofluoromethane	ND		53.8	36.9		ug/Kg	₽	69	48 - 150	

S	MS

Surrogate	%Recovery Qualif	ier Limits
1,2-Dichloroethane-d4 (Surr)	97	58 - 140
Toluene-d8 (Surr)	107	80 - 126
4-Bromofluorobenzene (Surr)	117	76 - 127
Dibromofluoromethane (Surr)	67 X	75 - 121

Lab Sample ID: 280-37114-C-1-C MSD

**Matrix: Solid** 

Analysis Batch: 153872

Prep Type: Total/NA Prep Batch: 153919

_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	ND		241	302		ug/Kg	*	112	65 - 150	17	28
2-Butanone (MEK)	ND		241	342		ug/Kg	₩	142	45 - 177	16	32
Benzene	ND		60.1	60.3	F	ug/Kg	₩	100	75 - 135	21	20
Chlorobenzene	ND		60.1	59.7		ug/Kg	₩	99	78 - 135	19	20
Carbon disulfide	ND		60.1	49.8		ug/Kg	₩	83	45 - 150	22	24
Carbon tetrachloride	ND		60.1	58.5	F	ug/Kg	₩	97	69 - 138	21	20
1,2-Dibromo-3-Chloropropane	ND		60.1	70.5		ug/Kg	₩	117	66 - 150	23	28
Bromomethane	ND		60.1	48.8		ug/Kg	₩	81	52 - 135	13	22
Bromoform	ND		60.1	61.7	F	ug/Kg	₩	103	77 - 135	23	20
Chloroethane	ND		60.1	44.4		ug/Kg	₽	74	51 <sub>-</sub> 145	12	22

TestAmerica Denver

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Spike

Added

MSD MSD

Result Qualifier

Unit

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74

93

90

-178

88

93

94

131

97

117

104

109

93

115

43 - 145

77 - 135

75 - 135

76 - 135

73 - 135

69 - 135

73 - 135

76 - 135

71 - 135

70 - 135

79 - 135

69 - 135

72 - 121

73 - 125

76 - 135

48 - 150

%Rec

TestAmerica Job ID: 280-37374-2

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

**RPD** 

Limit

24

20

20

20

20

20

22

20

20

20

20

20

20

20

20

33

11

18

18

24

16

16

16

21

23

21

24

21

22

18

24

11

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Sample Sample

Result Qualifier

Lab Sample ID: 280-37114-C-1-C MSD

**Matrix: Solid** 

Analyte

Vinyl chloride

o-Xylene

m-Xylene & p-Xylene

Tetrachloroethene

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1,1-Dichloroethane

1,1-Dichloroethene

1,2-Dichloroethane

1,2-Dichloropropane

1,2-Dibromoethane

Trichlorofluoromethane

Ethylbenzene

cis-1,2-Dichloroethene

cis-1,3-Dichloropropene

Analysis Batch: 153872

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Limits

**Prep Batch: 153919** 

RPD

Chloroform	ND	60.1	57.9	ug/Kg	\$	96	73 - 123	20	20	
Chlorobromomethane	ND	60.1	58.5	ug/Kg	₩	97	74 - 135	21	21	
Dichlorobromomethane	ND	60.1	65.4 F	ug/Kg	*	109	73 - 135	21	20	
Chlorodibromomethane	ND	60.1	76.6 F	ug/Kg	₽	127	77 - 135	22	20	
Isopropylbenzene	ND	60.1	68.4	ug/Kg	₩	114	74 - 137	20	20	
2-Hexanone	ND	241	273	ug/Kg	₽	114	67 - 150	15	29	
Chloromethane	ND	60.1	53.4	ug/Kg	₽	89	41 - 138	14	25	
Dichlorodifluoromethane	ND	60.1	43.7	ug/Kg	₩	73	32 - 152	10	28	Ľ
trans-1,2-Dichloroethene	ND	60.1	55.7 F	ug/Kg	₽	93	77 - 135	22	20	
trans-1,3-Dichloropropene	ND	60.1	67.6 F	ug/Kg	₩	112	71 - 135	22	20	
Methylene Chloride	ND	60.1	61.6 F	ug/Kg	₽	102	76 - 136	24	21	
Methyl tert-butyl ether	ND	60.1	50.1 F	ug/Kg	₽	83	71 - 141	23	20	
4-Methyl-2-pentanone (MIBK)	ND	241	269	ug/Kg	₩	112	69 _ 150	16	25	
Styrene	ND	60.1	55.6	ug/Kg	₽	92	76 - 135	18	20	
1,1,2,2-Tetrachloroethane	ND	60.1	ND F	ug/Kg	*	0	65 - 135	NC	21	
1,2,3-Trichlorobenzene	ND	60.1	27.7 F	ug/Kg	₽	46	62 - 135	11	31	
1,2,4-Trichlorobenzene	ND	60.1	31.1 F	ug/Kg	₽	52	65 - 135	10	26	
Toluene	ND	60.1	58.7	ug/Kg	₽	98	77 - 122	20	20	
1,1,1-Trichloroethane	ND	60.1	56.1 F	ug/Kg	₽	93	70 - 135	21	20	
1,1,2-Trichloroethane	ND	60.1	57.5	ug/Kg	₩	96	78 - 135	19	20	
Trichloroethene	ND	60.1	109 F	ug/Kg	\$	182	77 - 135	20	20	

60.1

120

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60.1

44.5

114

55.1

52.8

55.8

56.5

56.5 F

78.8 F

58.2 F

70.1 F

62.7 F

65.3 F

69.4 F

57.8

41.1

2820 E4F

MSD M	SD
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ND

1.5

2900 E

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

ND

0.89

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		58 - 140
Toluene-d8 (Surr)	107		80 - 126
4-Bromofluorobenzene (Surr)	121		76 - 127
Dibromofluoromethane (Surr)	61	X	75 - 121

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-154297/1-A

Matrix: Solid

Analysis Batch: 154301

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 154297** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	5.4	ug/Kg		12/31/12 06:00	12/31/12 11:30	
2-Butanone (MEK)	ND		20	1.8	ug/Kg		12/31/12 06:00	12/31/12 11:30	•
Benzene	ND		5.0	0.47	ug/Kg		12/31/12 06:00	12/31/12 11:30	•
Chlorobenzene	ND		5.0	0.54	ug/Kg		12/31/12 06:00	12/31/12 11:30	•
Carbon disulfide	ND		5.0	0.42	ug/Kg		12/31/12 06:00	12/31/12 11:30	•
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		12/31/12 06:00	12/31/12 11:30	•
Cyclohexane	0.480	J	5.0	0.40	ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Bromomethane	ND		10	0.50	ug/Kg		12/31/12 06:00	12/31/12 11:30	•
Bromoform	ND		5.0	0.23	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Chloroethane	ND		10	0.89	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Chloroform	ND		10	0.29	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Chlorobromomethane	ND		5.0	0.30	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Dichlorobromomethane	ND		5.0	0.22	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Chlorodibromomethane	ND		5.0	0.57	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Isopropylbenzene	ND		5.0	0.59	ug/Kg		12/31/12 06:00	12/31/12 11:30	· · · · · · · ·
2-Hexanone	ND		20	4.9	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Chloromethane	ND		10	0.77	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Dichlorodifluoromethane	ND		10	0.52	ug/Kg		12/31/12 06:00	12/31/12 11:30	
trans-1,2-Dichloroethene	ND		2.5	0.39	ug/Kg		12/31/12 06:00	12/31/12 11:30	
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/Kg		12/31/12 06:00	12/31/12 11:30	
Methylene Chloride	ND		5.0	1.6	ug/Kg		12/31/12 06:00	12/31/12 11:30	,
Methyl acetate	ND		10		ug/Kg		12/31/12 06:00	12/31/12 11:30	
Methyl tert-butyl ether	ND		20		ug/Kg		12/31/12 06:00	12/31/12 11:30	
4-Methyl-2-pentanone (MIBK)	ND		20	4.4	ug/Kg		12/31/12 06:00	12/31/12 11:30	,
Methylcyclohexane	0.967	J	5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
Styrene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,1,2,2-Tetrachloroethane	ND		5.0	0.61	ug/Kg		12/31/12 06:00	12/31/12 11:30	,
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
Toluene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	,
1,1,1-Trichloroethane	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,1,2-Trichloroethane	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
Trichloroethene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	,
1,1,2-Trichlorotrifluoroethane	ND		20		ug/Kg		12/31/12 06:00	12/31/12 11:30	
Vinyl chloride	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
m-Xylene & p-Xylene	ND		2.5		ug/Kg		12/31/12 06:00	12/31/12 11:30	,
o-Xylene	ND		2.5		ug/Kg		12/31/12 06:00	12/31/12 11:30	
Tetrachloroethene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,2-Dichlorobenzene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	,
1,3-Dichlorobenzene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,4-Dichlorobenzene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
cis-1,2-Dichloroethene	ND		2.5		ug/Kg		12/31/12 06:00	12/31/12 11:30	
cis-1,3-Dichloropropene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,1-Dichloroethane	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,1-Dichloroethene	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,2-Dichloroethane	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	
1,2-Dichloropropane	ND		5.0		ug/Kg		12/31/12 06:00	12/31/12 11:30	

TestAmerica Denver

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RL

500

5.0

5.0

10

Limits

58 - 140

80 - 126

76 - 127

75 - 121

MDL Unit

0.52 ug/Kg

1.0 ug/Kg

ug/Kg

56 ug/Kg

0.67

TestAmerica Job ID: 280-37374-2

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

MB MB Result Qualifier

ND

ND

ND

ND

98

109

102

95

%Recovery

MB MB

Qualifier

Lab Sample ID: MB 280-154297/1-A

**Matrix: Solid** 

Analyte

1,4-Dioxane

Ethylbenzene

Surrogate

1,2-Dibromoethane

Toluene-d8 (Surr)

**Matrix: Solid** 

Toluene

1,1,1-Trichloroethane

1.1.2-Trichloroethane

Trichloroethene

Vinyl chloride

Trichlorofluoromethane

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Lab Sample ID: LCS 280-154297/2-A

Analysis Batch: 154301

Client Sample ID: Method Blank Prep Type: Total/NA

12/31/12 11:30

12/31/12 11:30

12/31/12 11:30

Prep Batch: 154297

Prep Type: Total/NA

D Prepared Analyzed Dil Fac 12/31/12 06:00 12/31/12 11:30 1

12/31/12 06:00

12/31/12 06:00

12/31/12 06:00

7

 Prepared
 Analyzed
 Dil Fac

 12/31/12 06:00
 12/31/12 11:30
 1

 12/31/12 06:00
 12/31/12 11:30
 1

 12/31/12 06:00
 12/31/12 11:30
 1

 12/31/12 11:30
 1
 1

9

12/31/12 06:00 12/31/12 11:30 1

Client Sample ID: Lab Control Sample

12

13

14

Analysis Patch: 154201							Prop Patch: 454207
Analysis Batch: 154301	Spike	LCS	LCS				Prep Batch: 154297 %Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	200	219		ug/Kg		109	65 - 150
2-Butanone (MEK)	200	255		ug/Kg		127	45 - 177
Benzene	50.0	48.4		ug/Kg		97	75 <sub>-</sub> 135
Chlorobenzene	50.0	50.8		ug/Kg		102	78 - 135
Carbon disulfide	50.0	39.5		ug/Kg		79	45 - 150
Carbon tetrachloride	50.0	53.8		ug/Kg		108	69 - 138
1,2-Dibromo-3-Chloropropane	50.0	59.6		ug/Kg		119	66 - 150
Bromomethane	50.0	28.2		ug/Kg		56	52 _ 135
Bromoform	50.0	54.5		ug/Kg		109	77 - 135
Chloroethane	50.0	25.9		ug/Kg		52	51 <sub>-</sub> 145
Chloroform	50.0	47.8		ug/Kg		96	73 - 123
Chlorobromomethane	50.0	48.3		ug/Kg		97	74 - 135
Dichlorobromomethane	50.0	54.4		ug/Kg		109	73 - 135
Chlorodibromomethane	50.0	60.3		ug/Kg		121	77 - 135
Isopropylbenzene	50.0	53.2		ug/Kg		106	74 - 137
2-Hexanone	200	201		ug/Kg		101	67 - 150
Chloromethane	50.0	29.6		ug/Kg		59	41 - 138
Dichlorodifluoromethane	50.0	27.2		ug/Kg		54	32 _ 152
trans-1,2-Dichloroethene	50.0	46.0		ug/Kg		92	77 - 135
trans-1,3-Dichloropropene	50.0	54.9		ug/Kg		110	71 <sub>-</sub> 135
Methylene Chloride	50.0	47.9		ug/Kg		96	76 - 136
Methyl tert-butyl ether	50.0	44.7		ug/Kg		89	71 - 141
4-Methyl-2-pentanone (MIBK)	200	203		ug/Kg		101	69 - 150
Styrene	50.0	48.1		ug/Kg		96	76 - 135
1,1,2,2-Tetrachloroethane	50.0	54.7		ug/Kg		109	65 - 135
1,2,3-Trichlorobenzene	50.0	48.8		ug/Kg		98	62 _ 135
1,2,4-Trichlorobenzene	50.0	49.2		ug/Kg		98	65 - 135

TestAmerica Denver

99

95

99

100

51

77 - 122

70 - 135

78 - 135

77 - 135

43 - 145

50.0

50.0

50.0

50.0

50.0

49.5

47.4

49.6

50.0

25.7

ug/Kg

ug/Kg

ug/Kg

ug/Kg

ug/Kg

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

101100 000 10. 200 07 07 1 2

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-154297/2-A

**Matrix: Solid** 

Analysis Batch: 154301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 154297

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	100	99.9		ug/Kg		100	77 - 135	
o-Xylene	50.0	48.5		ug/Kg		97	75 <sub>-</sub> 135	
Tetrachloroethene	50.0	56.0		ug/Kg		112	76 - 135	
1,2-Dichlorobenzene	50.0	50.9		ug/Kg		102	73 - 135	
1,3-Dichlorobenzene	50.0	50.5		ug/Kg		101	69 _ 135	
1,4-Dichlorobenzene	50.0	50.9		ug/Kg		102	73 - 135	
cis-1,2-Dichloroethene	50.0	45.5		ug/Kg		91	76 _ 135	
cis-1,3-Dichloropropene	50.0	60.4		ug/Kg		121	71 <sub>-</sub> 135	
1,1-Dichloroethane	50.0	46.3		ug/Kg		93	70 - 135	
1,1-Dichloroethene	50.0	56.7		ug/Kg		113	79 _ 135	
1,2-Dichloroethane	50.0	52.2		ug/Kg		104	69 - 135	
1,2-Dichloropropane	50.0	50.4		ug/Kg		101	72 _ 121	
Ethylbenzene	50.0	50.4		ug/Kg		101	73 _ 125	
1,2-Dibromoethane	50.0	54.2		ug/Kg		108	76 <sub>-</sub> 135	
Trichlorofluoromethane	50.0	29.4		ug/Kg		59	48 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		58 - 140
Toluene-d8 (Surr)	107		80 - 126
4-Bromofluorobenzene (Surr)	102		76 - 127
Dibromofluoromethane (Surr)	96		75 - 121

Lab Sample ID: 280-37374-1 MS

**Matrix: Solid** 

Analysis Batch: 154301

Client Sample ID: SW-01-0 Prep Type: Total/NA Prep Batch: 154297

Analysis Batch: 154301									Prep Batch:	154297
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	ND		252	167		ug/Kg	<u> </u>	66	65 - 150	
2-Butanone (MEK)	ND		252	928	F	ug/Kg	₩	369	45 _ 177	
Benzene	ND		62.9	47.2		ug/Kg	₩	75	75 - 135	
Chlorobenzene	ND		62.9	46.0	F	ug/Kg	₩	73	78 - 135	
Carbon disulfide	ND		62.9	37.5		ug/Kg	₩	60	45 _ 150	
Carbon tetrachloride	ND		62.9	45.4		ug/Kg	₩	72	69 - 138	
1,2-Dibromo-3-Chloropropane	ND		62.9	55.0		ug/Kg	₩	87	66 _ 150	
Bromomethane	ND		62.9	22.2	F	ug/Kg	≎	35	52 - 135	
Bromoform	ND		62.9	46.2	F	ug/Kg	₩	73	77 _ 135	
Chloroethane	ND		62.9	23.9	F	ug/Kg	₽	38	51 - 145	
Chloroform	ND		62.9	45.9		ug/Kg	₩	73	73 - 123	
Chlorobromomethane	ND		62.9	50.7		ug/Kg	₩	81	74 - 135	
Dichlorobromomethane	ND		62.9	50.3		ug/Kg	₽	80	73 - 135	
Chlorodibromomethane	ND		62.9	54.9		ug/Kg	≎	87	77 _ 135	
Isopropylbenzene	ND		62.9	49.0		ug/Kg	₩	78	74 - 137	
2-Hexanone	ND		252	162	F	ug/Kg	₽	64	67 _ 150	
Chloromethane	ND		62.9	26.7		ug/Kg	≎	42	41 - 138	
Dichlorodifluoromethane	ND		62.9	23.8		ug/Kg	₽	38	32 _ 152	
trans-1,2-Dichloroethene	ND		62.9	43.9	F	ug/Kg	\$	70	77 _ 135	
trans-1,3-Dichloropropene	ND		62.9	47.9		ug/Kg	₽	76	71 _ 135	
Methylene Chloride	ND		62.9	48.5		ug/Kg	₩	77	76 - 136	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

SIAMENCA JOD ID. 200-3/3/4-2

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37374-1 MS

**Matrix: Solid** 

Analysis Batch: 154301

Client Sample ID: SW-01-0 Prep Type: Total/NA Prep Batch: 154297

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	ND		62.9	44.0	F	ug/Kg	\$	70	71 - 141	
4-Methyl-2-pentanone (MIBK)	ND		252	186		ug/Kg	₽	74	69 _ 150	
Styrene	ND		62.9	40.8	F	ug/Kg	₽	65	76 - 135	
1,1,2,2-Tetrachloroethane	ND		62.9	51.3		ug/Kg	₽	82	65 _ 135	
1,2,3-Trichlorobenzene	ND		62.9	27.3	F	ug/Kg	₩	43	62 _ 135	
1,2,4-Trichlorobenzene	ND		62.9	28.7	F	ug/Kg	₽	46	65 - 135	
Toluene	ND		62.9	46.7	F	ug/Kg	₽	74	77 - 122	
1,1,1-Trichloroethane	ND		62.9	41.6	F	ug/Kg	₽	66	70 - 135	
1,1,2-Trichloroethane	ND		62.9	51.0		ug/Kg	₽	81	78 - 135	
Trichloroethene	ND		62.9	50.5		ug/Kg	*	80	77 _ 135	
Vinyl chloride	ND		62.9	23.6	F	ug/Kg	₽	38	43 - 145	
m-Xylene & p-Xylene	ND		126	88.1	F	ug/Kg	₽	70	77 _ 135	
o-Xylene	ND		62.9	43.6	F	ug/Kg	₽	69	75 - 135	
Tetrachloroethene	ND		62.9	53.0		ug/Kg	₩	84	76 - 135	
1,2-Dichlorobenzene	ND		62.9	41.7	F	ug/Kg	₩	66	73 - 135	
1,3-Dichlorobenzene	ND		62.9	42.3	F	ug/Kg	₽	67	69 - 135	
1,4-Dichlorobenzene	ND		62.9	41.4	F	ug/Kg	₩	66	73 - 135	
cis-1,2-Dichloroethene	ND		62.9	45.5	F	ug/Kg	₽	72	76 - 135	
cis-1,3-Dichloropropene	ND		62.9	53.3		ug/Kg	₽	85	71 _ 135	
1,1-Dichloroethane	ND		62.9	44.8		ug/Kg	₩	71	70 - 135	
1,1-Dichloroethene	ND		62.9	56.7		ug/Kg	₽	90	79 - 135	
1,2-Dichloroethane	ND		62.9	49.1		ug/Kg	₩	78	69 _ 135	
1,2-Dichloropropane	ND		62.9	49.3		ug/Kg	₽	78	72 - 121	
Ethylbenzene	ND		62.9	45.1	F	ug/Kg	₩	72	73 - 125	
1,2-Dibromoethane	ND		62.9	53.6		ug/Kg	*	85	76 - 135	
Trichlorofluoromethane	ND		62.9	24.7	F	ug/Kg	₽	39	48 - 150	

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Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		58 - 140
Toluene-d8 (Surr)	106		80 - 126
4-Bromofluorobenzene (Surr)	102		76 - 127
Dibromofluoromethane (Surr)	94		75 - 121

Lab Sample ID: 280-37374-1 MSD

**Matrix: Solid** 

Analysis Batch: 154301

Client Sample ID: SW-01-0
Prep Type: Total/NA
Pron Batch: 154297

Allalysis Datell. 134301									ı iep i	Daten. I	J4231
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	ND		216	166		ug/Kg	<u> </u>	77	65 - 150	1	28
2-Butanone (MEK)	ND		216	896	EF	ug/Kg	₽	415	45 - 177	4	32
Benzene	ND		54.0	43.4		ug/Kg	₩	80	75 - 135	8	20
Chlorobenzene	ND		54.0	43.9		ug/Kg	₩	81	78 <sub>-</sub> 135	5	20
Carbon disulfide	ND		54.0	35.2		ug/Kg	₩	65	45 - 150	6	24
Carbon tetrachloride	ND		54.0	42.3		ug/Kg	₩	78	69 - 138	7	20
1,2-Dibromo-3-Chloropropane	ND		54.0	49.6		ug/Kg	₩	92	66 - 150	10	28
Bromomethane	ND		54.0	21.8	F	ug/Kg	₩	40	52 - 135	2	22
Bromoform	ND		54.0	43.9		ug/Kg	₩	81	77 - 135	5	20
Chloroethane	ND		54.0	23.7	F	ug/Kg	₽	44	51 <sub>-</sub> 145	1	22

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37374-1 MSD

**Matrix: Solid** 

Analysis Batch: 154301

Client Sample ID: SW-01-0 Prep Type: Total/NA

**Prep Batch: 154297** 

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloroform	ND		54.0	42.2		ug/Kg	₽	78	73 - 123	8	20
Chlorobromomethane	ND		54.0	46.7		ug/Kg	₩	87	74 - 135	8	21
Dichlorobromomethane	ND		54.0	46.8		ug/Kg	₽	87	73 - 135	7	20
Chlorodibromomethane	ND		54.0	51.7		ug/Kg	₽	96	77 - 135	6	20
Isopropylbenzene	ND		54.0	45.8		ug/Kg	₽	85	74 - 137	7	20
2-Hexanone	ND		216	166		ug/Kg	₽	77	67 - 150	3	29
Chloromethane	ND		54.0	24.3		ug/Kg	₽	45	41 - 138	9	25
Dichlorodifluoromethane	ND		54.0	23.1		ug/Kg	₽	43	32 - 152	3	28
trans-1,2-Dichloroethene	ND		54.0	39.4	F	ug/Kg	₽	73	77 - 135	11	20
trans-1,3-Dichloropropene	ND		54.0	45.0		ug/Kg	₽	83	71 - 135	6	20
Methylene Chloride	ND		54.0	44.3		ug/Kg	₽	82	76 - 136	9	21
Methyl tert-butyl ether	ND		54.0	40.6		ug/Kg	\$	75	71 - 141	8	20
4-Methyl-2-pentanone (MIBK)	ND		216	190		ug/Kg	₩	88	69 - 150	2	25
Styrene	ND		54.0	38.9	F	ug/Kg	₽	72	76 - 135	5	20
1,1,2,2-Tetrachloroethane	ND		54.0	47.0		ug/Kg	\$	87	65 - 135	9	21
1,2,3-Trichlorobenzene	ND		54.0	25.5	F	ug/Kg	₩	47	62 - 135	7	31
1,2,4-Trichlorobenzene	ND		54.0	27.5	F	ug/Kg	₽	51	65 - 135	4	26
Toluene	ND		54.0	43.9		ug/Kg	*	81	77 - 122	6	20
1,1,1-Trichloroethane	ND		54.0	38.2		ug/Kg	₩	71	70 - 135	8	20
1,1,2-Trichloroethane	ND		54.0	47.0		ug/Kg	₩	87	78 - 135	8	20
Trichloroethene	ND		54.0	47.1		ug/Kg	\$	87	77 - 135	7	20
Vinyl chloride	ND		54.0	20.9	F	ug/Kg	₽	39	43 - 145	12	24
m-Xylene & p-Xylene	ND		108	84.0		ug/Kg	₽	78	77 - 135	5	20
o-Xylene	ND		54.0	41.0		ug/Kg	₽	76	75 - 135	6	20
Tetrachloroethene	ND		54.0	50.0		ug/Kg	₽	93	76 - 135	6	20
1,2-Dichlorobenzene	ND		54.0	39.7		ug/Kg	₽	74	73 - 135	5	20
1,3-Dichlorobenzene	ND		54.0	40.3		ug/Kg	₽	75	69 - 135	5	20
1,4-Dichlorobenzene	ND		54.0	39.8		ug/Kg	₽	74	73 - 135	4	22
cis-1,2-Dichloroethene	ND		54.0	41.8		ug/Kg	₽	77	76 - 135	8	20
cis-1,3-Dichloropropene	ND		54.0	50.5		ug/Kg	φ.	93	71 - 135	5	20
1,1-Dichloroethane	ND		54.0	41.0		ug/Kg	₽	76	70 - 135	9	20
1,1-Dichloroethene	ND		54.0	51.0		ug/Kg	₽	94	79 - 135	11	20
1,2-Dichloroethane	ND		54.0	44.9		ug/Kg	₩	83	69 - 135	9	20
1,2-Dichloropropane	ND		54.0	45.2		ug/Kg	₩	84	72 - 121	9	20
Ethylbenzene	ND		54.0	42.7		ug/Kg	₽	79	73 - 125	6	20
1,2-Dibromoethane	ND		54.0	49.5		ug/Kg	₩	92	76 - 135	8	20
Trichlorofluoromethane	ND		54.0	24.7	F	ug/Kg	☼	46	48 - 150	0	33

SD	MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		58 - 140
Toluene-d8 (Surr)	105		80 - 126
4-Bromofluorobenzene (Surr)	102		76 - 127
Dibromofluoromethane (Surr)	94		75 - 121

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-154317/5

**Matrix: Water** 

Analysis Batch: 154317

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

Analyte	Result (	Oualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acetone	ND		10		ug/L		Frepareu	01/02/13 08:27	Dil Fa
2-Butanone (MEK)	ND		6.0		ug/L			01/02/13 08:27	
Benzene	ND		1.0	0.16	-			01/02/13 08:27	
Chlorobenzene	ND		1.0		ug/L			01/02/13 08:27	
Carbon disulfide	ND		2.0	0.45	-			01/02/13 08:27	
Carbon tetrachloride	ND ND		1.0	0.43	-			01/02/13 08:27	
Cyclohexane	ND		2.0	0.13				01/02/13 08:27	
1,2-Dibromo-3-Chloropropane	ND ND		5.0	0.20	-			01/02/13 08:27	
Bromomethane	ND ND		2.0	0.47				01/02/13 08:27	
Bromoform	ND			0.21					
			1.0					01/02/13 08:27	
Chloroform	ND		2.0		ug/L			01/02/13 08:27	
Chloroform	ND		1.0		ug/L			01/02/13 08:27	
Chlorobromomethane	ND		1.0		ug/L			01/02/13 08:27	
Dichlorobromomethane	ND		1.0		ug/L			01/02/13 08:27	
Chlorodibromomethane	ND		1.0		ug/L			01/02/13 08:27	
Isopropylbenzene	ND		1.0		ug/L			01/02/13 08:27	
2-Hexanone	ND		5.0		ug/L 			01/02/13 08:27	
Chloromethane	ND		2.0		ug/L			01/02/13 08:27	
Dichlorodifluoromethane	ND		2.0		ug/L			01/02/13 08:27	
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/02/13 08:27	
trans-1,3-Dichloropropene	ND		3.0		ug/L			01/02/13 08:27	
Methylene Chloride	ND		2.0	0.32	ug/L			01/02/13 08:27	
Methyl acetate	ND		5.0	1.6	ug/L			01/02/13 08:27	
Methyl tert-butyl ether	ND		5.0	0.25				01/02/13 08:27	
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			01/02/13 08:27	
Methylcyclohexane	ND		1.0	0.36	ug/L			01/02/13 08:27	
Styrene	ND		1.0	0.17	ug/L			01/02/13 08:27	
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/02/13 08:27	
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			01/02/13 08:27	
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			01/02/13 08:27	
Toluene	ND		1.0	0.17	ug/L			01/02/13 08:27	
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			01/02/13 08:27	
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			01/02/13 08:27	
Trichloroethene	ND		1.0	0.16	ug/L			01/02/13 08:27	
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			01/02/13 08:27	
Vinyl chloride	ND		1.0	0.10	ug/L			01/02/13 08:27	
m-Xylene & p-Xylene	ND		2.0		ug/L			01/02/13 08:27	
o-Xylene	ND		1.0		ug/L			01/02/13 08:27	
Tetrachloroethene	ND		1.0	0.20	ug/L			01/02/13 08:27	
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			01/02/13 08:27	
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			01/02/13 08:27	
1,4-Dichlorobenzene	ND		1.0		ug/L			01/02/13 08:27	
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/02/13 08:27	
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/02/13 08:27	
1,1-Dichloroethane	ND		1.0		ug/L			01/02/13 08:27	
1,1-Dichloroethene	ND		1.0		ug/L			01/02/13 08:27	
1,2-Dichloroethane	ND		1.0	0.13				01/02/13 08:27	
1,2-Dichloropropane	ND		1.0	0.18	•			01/02/13 08:27	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-154317/5

**Matrix: Water** 

Analysis Batch: 154317

Client Sample	ID:	Metho	od Bla	ank
Pi	rep T	уре:	Total/	ΝA

	MB MB							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND ND	200	57	ug/L			01/02/13 08:27	1
Ethylbenzene	ND	1.0	0.16	ug/L			01/02/13 08:27	1
1,2-Dibromoethane	ND	1.0	0.18	ug/L			01/02/13 08:27	1
Trichlorofluoromethane	ND	2.0	0.29	ug/L			01/02/13 08:27	1

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 86 70 - 127 01/02/13 08:27 Toluene-d8 (Surr) 102 80 - 125 01/02/13 08:27 4-Bromofluorobenzene (Surr) 106 78 - 120 01/02/13 08:27 Dibromofluoromethane (Surr) 85 77 - 120 01/02/13 08:27

Lab Sample ID: LCS 280-154317/4

**Matrix: Water** 

Analysis Batch: 154317

<b>Client Sample ID</b>	: Lab Control Sample
	Prep Type: Total/NA

Allalysis batch. 134317	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acetone	20.0	21.8	-	ug/L		109	50 - 156	
2-Butanone (MEK)	20.0	22.7		ug/L		114	44 - 150	
Benzene	5.00	4.74		ug/L		95	74 - 135	
Chlorobenzene	5.00	4.78		ug/L		96	76 - 135	
Carbon disulfide	5.00	4.01		ug/L		80	34 - 150	
Carbon tetrachloride	5.00	4.94		ug/L		99	67 - 135	
1,2-Dibromo-3-Chloropropane	5.00	4.24	J	ug/L		85	65 _ 150	
Bromomethane	5.00	5.04		ug/L		101	38 - 150	
Bromoform	5.00	3.90		ug/L		78	62 - 135	
Chloroethane	5.00	5.02		ug/L		100	46 - 147	
Chloroform	5.00	4.83		ug/L		97	76 - 120	
Chlorobromomethane	5.00	4.80		ug/L		96	70 - 135	
Dichlorobromomethane	5.00	4.69		ug/L		94	73 <sub>-</sub> 135	
Chlorodibromomethane	5.00	4.52		ug/L		90	68 - 135	
Isopropylbenzene	5.00	4.82		ug/L		96	75 - 135	
2-Hexanone	20.0	18.2		ug/L		91	47 - 150	
Chloromethane	5.00	4.75		ug/L		95	34 - 145	
Dichlorodifluoromethane	5.00	4.97		ug/L		99	28 - 152	
trans-1,2-Dichloroethene	5.00	4.85		ug/L		97	75 - 135	
trans-1,3-Dichloropropene	5.00	4.49		ug/L		90	68 - 135	
Methylene Chloride	5.00	4.35		ug/L		87	54 - 141	
Methyl tert-butyl ether	5.00	4.42	J	ug/L		88	46 - 135	
4-Methyl-2-pentanone (MIBK)	20.0	17.7		ug/L		88	53 - 150	
Styrene	5.00	4.54		ug/L		91	68 - 135	
1,1,2,2-Tetrachloroethane	5.00	4.36		ug/L		87	66 - 135	
1,2,3-Trichlorobenzene	5.00	4.65		ug/L		93	60 - 135	
1,2,4-Trichlorobenzene	5.00	4.76		ug/L		95	64 - 135	
Toluene	5.00	4.65		ug/L		93	73 - 120	
1,1,1-Trichloroethane	5.00	5.01		ug/L		100	70 - 135	
1,1,2-Trichloroethane	5.00	4.53		ug/L		91	73 - 135	
Trichloroethene	5.00	4.77		ug/L		95	73 _ 135	
Vinyl chloride	5.00	5.09		ug/L		102	40 - 144	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-154317/4

**Matrix: Water** 

Analysis Batch: 154317

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	10.0	10.1		ug/L		101	74 - 135	
o-Xylene	5.00	4.67		ug/L		93	73 <sub>-</sub> 135	
Tetrachloroethene	5.00	4.92		ug/L		98	70 - 135	
1,2-Dichlorobenzene	5.00	4.70		ug/L		94	75 - 135	
1,3-Dichlorobenzene	5.00	4.82		ug/L		96	74 - 135	
1,4-Dichlorobenzene	5.00	4.86		ug/L		97	75 - 135	
cis-1,2-Dichloroethene	5.00	4.69		ug/L		94	73 - 135	
cis-1,3-Dichloropropene	5.00	4.54		ug/L		91	66 - 135	
1,1-Dichloroethane	5.00	4.72		ug/L		94	75 - 135	
1,1-Dichloroethene	5.00	5.45		ug/L		109	71 - 136	
1,2-Dichloroethane	5.00	4.83		ug/L		97	70 - 135	
1,2-Dichloropropane	5.00	4.45		ug/L		89	71 - 120	
Ethylbenzene	5.00	4.90		ug/L		98	72 - 120	
1,2-Dibromoethane	5.00	4.65		ug/L		93	71 <sub>-</sub> 135	
Trichlorofluoromethane	5.00	4.95		ug/L		99	47 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		70 - 127
Toluene-d8 (Surr)	99		80 - 125
4-Bromofluorobenzene (Surr)	103		78 - 120
Dibromofluoromethane (Surr)	85		77 - 120

Lab Sample ID: 280-37417-I-1 MS

**Matrix: Water** 

Client	Sample ID: Matrix Spike	
	Pron Type: Total/NA	

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	ND		20.0	25.3		ug/L		126	50 - 156
2-Butanone (MEK)	ND		20.0	21.2		ug/L		106	44 - 150
Benzene	4.5		5.00	8.95		ug/L		89	74 - 135
Chlorobenzene	1.2		5.00	5.93		ug/L		95	76 <sub>-</sub> 135
Carbon disulfide	ND		5.00	3.76		ug/L		75	34 - 150
Carbon tetrachloride	ND		5.00	5.13		ug/L		103	67 - 135
1,2-Dibromo-3-Chloropropane	ND		5.00	4.54	J	ug/L		91	65 _ 150
Bromomethane	ND		5.00	4.95		ug/L		99	38 - 150
Bromoform	ND		5.00	4.06		ug/L		81	62 _ 135
Chloroethane	ND		5.00	5.28		ug/L		106	46 - 147
Chloroform	ND		5.00	4.41		ug/L		88	76 - 120
Chlorobromomethane	ND		5.00	4.50		ug/L		90	70 _ 135
Dichlorobromomethane	ND		5.00	4.62		ug/L		92	73 - 135
Chlorodibromomethane	ND		5.00	4.56		ug/L		91	68 _ 135
Isopropylbenzene	2.9		5.00	7.86		ug/L		99	75 _ 135
2-Hexanone	ND		20.0	67.0	F	ug/L		335	47 _ 150
Chloromethane	ND		5.00	4.67		ug/L		93	34 - 145
Dichlorodifluoromethane	ND		5.00	5.38		ug/L		108	28 - 152
trans-1,2-Dichloroethene	0.17	J	5.00	5.10		ug/L		99	75 <sub>-</sub> 135
trans-1,3-Dichloropropene	ND		5.00	4.31		ug/L		86	68 <sub>-</sub> 135
Methylene Chloride	ND		5.00	3.82		ug/L		76	54 - 141

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Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37417-I-1 MS

**Matrix: Water** 

Analysis Batch: 154317										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	0.69	J	5.00	5.11		ug/L		88	46 - 135	
4-Methyl-2-pentanone (MIBK)	ND		20.0	17.8		ug/L		89	53 <sub>-</sub> 150	
Styrene	ND		5.00	4.82		ug/L		96	68 <sub>-</sub> 135	
1 1 2 2-Tetrachloroethane	ND		5.00	4 49		ua/l		90	66 135	

Analyte	Result Qualifier	Added	Result	Qualifier	Unit	U	%Rec	Limits	
Methyl tert-butyl ether	0.69 J	5.00	5.11		ug/L		88	46 - 135	
4-Methyl-2-pentanone (MIBK)	ND	20.0	17.8		ug/L		89	53 - 150	
Styrene	ND	5.00	4.82		ug/L		96	68 - 135	
1,1,2,2-Tetrachloroethane	ND	5.00	4.49		ug/L		90	66 - 135	
1,2,3-Trichlorobenzene	ND	5.00	4.88		ug/L		98	60 - 135	
1,2,4-Trichlorobenzene	ND	5.00	5.01		ug/L		100	64 - 135	
Toluene	1.9	5.00	6.61		ug/L		94	73 - 120	
1,1,1-Trichloroethane	ND	5.00	4.91		ug/L		98	70 - 135	
1,1,2-Trichloroethane	ND	5.00	4.43		ug/L		89	73 - 135	
Trichloroethene	ND	5.00	4.72		ug/L		94	73 - 135	
Vinyl chloride	2.4	5.00	7.77		ug/L		108	40 - 144	
m-Xylene & p-Xylene	5.1	10.0	14.8		ug/L		97	74 <sub>-</sub> 135	
o-Xylene	4.1	5.00	8.49		ug/L		89	73 - 135	
Tetrachloroethene	ND	5.00	5.05		ug/L		101	70 - 135	
1,2-Dichlorobenzene	ND	5.00	4.79		ug/L		96	75 <sub>-</sub> 135	
1,3-Dichlorobenzene	ND	5.00	4.87		ug/L		97	74 - 135	
1,4-Dichlorobenzene	6.2	5.00	11.0		ug/L		96	75 - 135	
cis-1,2-Dichloroethene	0.46 J	5.00	4.94		ug/L		90	73 <sub>-</sub> 135	
cis-1,3-Dichloropropene	ND	5.00	4.51		ug/L		90	66 - 135	
1,1-Dichloroethane	0.35 J	5.00	5.08		ug/L		95	75 <sub>-</sub> 135	
1,1-Dichloroethene	0.69 J	5.00	6.26		ug/L		111	71 - 136	
1,2-Dichloroethane	ND	5.00	5.13		ug/L		103	70 - 135	
1,2-Dichloropropane	ND	5.00	4.26		ug/L		85	71 - 120	
Ethylbenzene	26	5.00	31.3	4	ug/L		103	72 - 120	
1,2-Dibromoethane	ND	5.00	4.58		ug/L		92	71 <sub>-</sub> 135	
Trichlorofluoromethane	ND	5.00	5.20		ug/L		104	47 - 150	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		70 - 127
Toluene-d8 (Surr)	101		80 - 125
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	83		77 - 120

Lab Sample ID: 280-37417-I-1 MSD

**Matrix: Water** 

Analysis Batch: 154317

Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
ND		20.0	29.5		ug/L		148	50 - 156	16	41
ND		20.0	23.2		ug/L		116	44 - 150	9	32
4.5		5.00	9.09		ug/L		92	74 - 135	2	20
1.2		5.00	5.71		ug/L		90	76 - 135	4	20
ND		5.00	3.95		ug/L		79	34 - 150	5	20
ND		5.00	4.87		ug/L		97	67 - 135	5	21
ND		5.00	4.49	J	ug/L		90	65 - 150	1	22
ND		5.00	4.97		ug/L		99	38 - 150	1	24
ND		5.00	4.04		ug/L		81	62 - 135	1	21
ND		5.00	5.53		ug/L		111	46 - 147	5	25
	Result ND ND 4.5 1.2 ND ND ND ND ND ND ND ND ND ND	ND 4.5 1.2 ND ND ND ND	Result         Qualifier         Added           ND         20.0           ND         20.0           4.5         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00           ND         5.00	Result         Qualifier         Added         Result           ND         20.0         29.5           ND         20.0         23.2           4.5         5.00         9.09           1.2         5.00         5.71           ND         5.00         3.95           ND         5.00         4.87           ND         5.00         4.49           ND         5.00         4.97           ND         5.00         4.04	Result         Qualifier         Added         Result         Qualifier           ND         20.0         29.5           ND         20.0         23.2           4.5         5.00         9.09           1.2         5.00         5.71           ND         5.00         3.95           ND         5.00         4.87           ND         5.00         4.49         J           ND         5.00         4.97           ND         5.00         4.04	Result         Qualifier         Added         Result         Qualifier         Unit           ND         20.0         29.5         ug/L           ND         20.0         23.2         ug/L           4.5         5.00         9.09         ug/L           1.2         5.00         5.71         ug/L           ND         5.00         3.95         ug/L           ND         5.00         4.87         ug/L           ND         5.00         4.49         J         ug/L           ND         5.00         4.97         ug/L           ND         5.00         4.04         ug/L	Result         Qualifier         Added         Result         Qualifier         Unit         D           ND         20.0         29.5         ug/L         ug/L           ND         20.0         23.2         ug/L           4.5         5.00         9.09         ug/L           ND         5.00         5.71         ug/L           ND         5.00         3.95         ug/L           ND         5.00         4.87         ug/L           ND         5.00         4.49         J         ug/L           ND         5.00         4.97         ug/L           ND         5.00         4.04         ug/L	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           ND         20.0         29.5         ug/L         148           ND         20.0         23.2         ug/L         116           4.5         5.00         9.09         ug/L         92           1.2         5.00         5.71         ug/L         90           ND         5.00         3.95         ug/L         79           ND         5.00         4.87         ug/L         97           ND         5.00         4.49         J         ug/L         90           ND         5.00         4.97         ug/L         99           ND         5.00         4.04         ug/L         81	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits           ND         20.0         29.5         ug/L         148         50 - 156           ND         20.0         23.2         ug/L         116         44 - 150           4.5         5.00         9.09         ug/L         92         74 - 135           1.2         5.00         5.71         ug/L         90         76 - 135           ND         5.00         3.95         ug/L         79         34 - 150           ND         5.00         4.87         ug/L         97         67 - 135           ND         5.00         4.49         J         ug/L         90         65 - 150           ND         5.00         4.97         ug/L         99         38 - 150           ND         5.00         4.04         ug/L         81         62 - 135	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           ND         20.0         29.5         ug/L         148         50 - 156         16           ND         20.0         23.2         ug/L         116         44 - 150         9           4.5         5.00         9.09         ug/L         92         74 - 135         2           1.2         5.00         5.71         ug/L         90         76 - 135         4           ND         5.00         3.95         ug/L         97         67 - 135         5           ND         5.00         4.87         ug/L         90         65 - 150         1           ND         5.00         4.49         J         ug/L         90         65 - 150         1           ND         5.00         4.97         ug/L         99         38 - 150         1           ND         5.00         4.04         ug/L         81         62 - 135         1

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Prep Type: Total/NA

**Client Sample ID: Matrix Spike Duplicate** 

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37417-I-1 MSD

**Matrix: Water** 

Analysis Batch: 154317

**Client Sample ID: Matrix Spike Duplicate** 

**Prep Type: Total/NA** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloroform	ND		5.00	4.39		ug/L		88	76 - 120	1	20
Chlorobromomethane	ND		5.00	4.55		ug/L		91	70 - 135	1	20
Dichlorobromomethane	ND		5.00	4.55		ug/L		91	73 - 135	1	20
Chlorodibromomethane	ND		5.00	4.50		ug/L		90	68 - 135	1	20
Isopropylbenzene	2.9		5.00	7.16		ug/L		85	75 - 135	9	20
2-Hexanone	ND		20.0	74.2	F	ug/L		371	47 - 150	10	25
Chloromethane	ND		5.00	5.02		ug/L		100	34 - 145	7	24
Dichlorodifluoromethane	ND		5.00	5.79		ug/L		116	28 - 152	7	24
trans-1,2-Dichloroethene	0.17	J	5.00	4.99		ug/L		97	75 - 135	2	24
trans-1,3-Dichloropropene	ND		5.00	4.48		ug/L		90	68 - 135	4	20
Methylene Chloride	ND		5.00	3.79		ug/L		76	54 - 141	1	20
Methyl tert-butyl ether	0.69	J	5.00	5.42		ug/L		94	46 - 135	6	21
4-Methyl-2-pentanone (MIBK)	ND		20.0	19.8		ug/L		99	53 - 150	11	22
Styrene	ND		5.00	4.69		ug/L		94	68 - 135	3	20
1,1,2,2-Tetrachloroethane	ND		5.00	4.18		ug/L		84	66 - 135	7	20
1,2,3-Trichlorobenzene	ND		5.00	4.59		ug/L		92	60 - 135	6	29
1,2,4-Trichlorobenzene	ND		5.00	4.78		ug/L		96	64 - 135	5	25
Toluene	1.9		5.00	6.48		ug/L		91	73 - 120	2	20
1,1,1-Trichloroethane	ND		5.00	4.77		ug/L		95	70 - 135	3	20
1,1,2-Trichloroethane	ND		5.00	4.64		ug/L		93	73 - 135	5	21
Trichloroethene	ND		5.00	4.53		ug/L		91	73 - 135	4	20
Vinyl chloride	2.4		5.00	8.14		ug/L		116	40 - 144	5	24
m-Xylene & p-Xylene	5.1		10.0	14.0		ug/L		89	74 - 135	5	20
o-Xylene	4.1		5.00	8.25		ug/L		84	73 - 135	3	20
Tetrachloroethene	ND		5.00	4.58		ug/L		92	70 - 135	10	20
1,2-Dichlorobenzene	ND		5.00	4.62		ug/L		92	75 - 135	4	20
1,3-Dichlorobenzene	ND		5.00	4.58		ug/L		92	74 - 135	6	20
1,4-Dichlorobenzene	6.2		5.00	10.9		ug/L		93	75 - 135	1	23
cis-1,2-Dichloroethene	0.46	J	5.00	4.77		ug/L		86	73 - 135	3	20
cis-1,3-Dichloropropene	ND		5.00	4.31		ug/L		86	66 - 135	5	20
1,1-Dichloroethane	0.35	J	5.00	4.90		ug/L		91	75 - 135	4	21
1,1-Dichloroethene	0.69	J	5.00	6.17		ug/L		110	71 - 136	1	20
1,2-Dichloroethane	ND		5.00	5.21		ug/L		104	70 - 135	2	20
1,2-Dichloropropane	ND		5.00	4.23		ug/L		85	71 - 120	1	20
Ethylbenzene	26		5.00	30.1	4	ug/L		78	72 - 120	4	26
1,2-Dibromoethane	ND		5.00	4.45		ug/L		89	71 - 135	3	20
Trichlorofluoromethane	ND		5.00	5.66		ug/L		113	47 - 150	8	20

SD	MSD
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Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 127
Toluene-d8 (Surr)	101		80 - 125
4-Bromofluorobenzene (Surr)	101		78 - 120
Dibromofluoromethane (Surr)	89		77 - 120

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-154326/1-A

Matrix: Solid

1,1-Dichloroethane

1,1-Dichloroethene

1,2-Dichloroethane

1,2-Dichloropropane

**Analysis Batch: 154355** 

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 154326** 

	IVID	IVID				_			
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	5.4	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
2-Butanone (MEK)	ND		20	1.8	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Benzene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Chlorobenzene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Carbon disulfide	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Carbon tetrachloride	ND		5.0	0.63	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Cyclohexane	ND		5.0	0.40	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,2-Dibromo-3-Chloropropane	ND		10	0.60	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Bromomethane	ND		10	0.50	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Bromoform	0.337	J	5.0	0.23	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Chloroethane	ND		10	0.89	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Chloroform	ND		10	0.29	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Chlorobromomethane	ND		5.0	0.30	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Dichlorobromomethane	ND		5.0	0.22	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Chlorodibromomethane	ND		5.0	0.57	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Isopropylbenzene	ND		5.0	0.59	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
2-Hexanone	ND		20	4.9	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Chloromethane	ND		10	0.77	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Dichlorodifluoromethane	ND		10	0.52	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
trans-1,2-Dichloroethene	ND		2.5	0.39	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Methylene Chloride	ND		5.0	1.6	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Methyl acetate	ND		10	2.8	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Methyl tert-butyl ether	ND		20	0.34	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
4-Methyl-2-pentanone (MIBK)	ND		20	4.4	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Methylcyclohexane	ND		5.0	0.42	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Styrene	ND		5.0	0.63	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.61	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,2,3-Trichlorobenzene	ND		5.0	0.75	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Toluene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Trichloroethene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,1,2-Trichlorotrifluoroethane	ND		20		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Vinyl chloride	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
m-Xylene & p-Xylene	ND		2.5		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
o-Xylene	ND		2.5		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Tetrachloroethene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg		01/02/13 06:00	01/02/13 10:20	1
cis-1,2-Dichloroethene	ND		2.5		ug/Kg		01/02/13 06:00	01/02/13 10:20	
cis-1,3-Dichloropropene	ND ND		5.0		ug/Kg ug/Kg		01/02/13 06:00	01/02/13 10:20	1
olo 1,0-Dioriloroproperie	ND		5.0	1.3	agritg		0 1/02/10 00:00	01/02/10 10.20	ı

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01/02/13 10:20

01/02/13 10:20

01/02/13 10:20

01/02/13 10:20

01/02/13 06:00

01/02/13 06:00

01/02/13 06:00

01/02/13 06:00

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5.0

5.0

5.0

5.0

0.21 ug/Kg

0.59 ug/Kg

0.70 ug/Kg

0.55 ug/Kg

ND

ND

ND

ND

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-154326/1-A

Lab Sample ID: LCS 280-154326/2-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 154355

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 154326** 

M	в мв						-	
Analyte Resu	lt Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane N	D	500	56	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Ethylbenzene N	D	5.0	0.67	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
1,2-Dibromoethane N	D	5.0	0.52	ug/Kg		01/02/13 06:00	01/02/13 10:20	1
Trichlorofluoromethane N	D	10	1.0	ug/Kg		01/02/13 06:00	01/02/13 10:20	1

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Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		58 - 140	-	01/02/13 06:00	01/02/13 10:20	1
Toluene-d8 (Surr)	94		80 - 126		01/02/13 06:00	01/02/13 10:20	1
4-Bromofluorobenzene (Surr)	105		76 - 127		01/02/13 06:00	01/02/13 10:20	1
Dibromofluoromethane (Surr)	87		75 - 121		01/02/13 06:00	01/02/13 10:20	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

		LCS	LCS				Prep Batch: 15432 %Rec.
Analyte	Spike Added		Qualifier	Unit	D	%Rec	Limits
Acetone	200	217		ug/Kg		108	65 - 150
2-Butanone (MEK)	200	239		ug/Kg		119	45 - 177
Benzene	50.0	47.7		ug/Kg		95	75 <sub>-</sub> 135
Chlorobenzene	50.0	48.0		ug/Kg		96	78 - 135
Carbon disulfide	50.0	38.7		ug/Kg		77	45 - 150
Carbon tetrachloride	50.0	51.2		ug/Kg		102	69 - 138
1,2-Dibromo-3-Chloropropane	50.0	46.4		ug/Kg		93	66 - 150
Bromomethane	50.0	36.3		ug/Kg		73	52 <sub>-</sub> 135
Bromoform	50.0	46.2		ug/Kg		92	77 - 135
Chloroethane	50.0	45.9		ug/Kg		92	51 <sub>-</sub> 145
Chloroform	50.0	48.2		ug/Kg		96	73 - 123
Chlorobromomethane	50.0	47.7		ug/Kg		95	74 - 135
Dichlorobromomethane	50.0	47.2		ug/Kg		94	73 <sub>-</sub> 135
Chlorodibromomethane	50.0	49.8		ug/Kg		100	77 - 135
Isopropylbenzene	50.0	52.0		ug/Kg		104	74 <sub>-</sub> 137
2-Hexanone	200	193		ug/Kg		96	67 - 150
Chloromethane	50.0	40.7		ug/Kg		81	41 - 138
Dichlorodifluoromethane	50.0	48.9		ug/Kg		98	32 - 152
trans-1,2-Dichloroethene	50.0	49.1		ug/Kg		98	77 - 135
trans-1,3-Dichloropropene	50.0	47.1		ug/Kg		94	71 <sub>-</sub> 135
Methylene Chloride	50.0	46.7		ug/Kg		93	76 - 136
Methyl tert-butyl ether	50.0	47.9		ug/Kg		96	71 <sub>-</sub> 141
4-Methyl-2-pentanone (MIBK)	200	209		ug/Kg		105	69 - 150
Styrene	50.0	49.9		ug/Kg		100	76 - 135
1,1,2,2-Tetrachloroethane	50.0	48.5		ug/Kg		97	65 - 135
1,2,3-Trichlorobenzene	50.0	48.0		ug/Kg		96	62 - 135
1,2,4-Trichlorobenzene	50.0	48.6		ug/Kg		97	65 <sub>-</sub> 135
Toluene	50.0	47.9		ug/Kg		96	77 <sub>-</sub> 122
1,1,1-Trichloroethane	50.0	50.8		ug/Kg		102	70 - 135
1,1,2-Trichloroethane	50.0	46.3		ug/Kg		93	78 <sub>-</sub> 135
Trichloroethene	50.0	48.1		ug/Kg		96	77 <sub>-</sub> 135
Vinyl chloride	50.0	41.2		ug/Kg		82	43 - 145

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

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Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-154326/2-A

**Matrix: Solid** 

Analysis Batch: 154355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 154326

•	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
m-Xylene & p-Xylene	100	97.5		ug/Kg		97	77 - 135	
o-Xylene	50.0	48.6		ug/Kg		97	75 <sub>-</sub> 135	
Tetrachloroethene	50.0	49.6		ug/Kg		99	76 - 135	
1,2-Dichlorobenzene	50.0	48.3		ug/Kg		97	73 - 135	
1,3-Dichlorobenzene	50.0	50.3		ug/Kg		101	69 - 135	
1,4-Dichlorobenzene	50.0	49.7		ug/Kg		99	73 - 135	
cis-1,2-Dichloroethene	50.0	47.3		ug/Kg		95	76 - 135	
cis-1,3-Dichloropropene	50.0	48.3		ug/Kg		97	71 <sub>-</sub> 135	
1,1-Dichloroethane	50.0	47.1		ug/Kg		94	70 - 135	
1,1-Dichloroethene	50.0	48.1		ug/Kg		96	79 <sub>-</sub> 135	
1,2-Dichloroethane	50.0	46.4		ug/Kg		93	69 - 135	
1,2-Dichloropropane	50.0	47.1		ug/Kg		94	72 - 121	
Ethylbenzene	50.0	48.1		ug/Kg		96	73 - 125	
1,2-Dibromoethane	50.0	48.1		ug/Kg		96	76 <sub>-</sub> 135	
Trichlorofluoromethane	50.0	48.9		ug/Kg		98	48 - 150	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		58 - 140
Toluene-d8 (Surr)	89		80 - 126
4-Bromofluorobenzene (Surr)	103		76 - 127
Dibromofluoromethane (Surr)	83		75 - 121

Lab Sample ID: 280-37354-B-1-B MS

**Matrix: Solid** 

Analysis Batch: 154355

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prop Ratch: 15/326

								Prep Batch, 154526
Sample	Sample	Spike	MS	MS				%Rec.
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
8.6	J	202	206		ug/Kg	\$	98	65 - 150
ND		202	255		ug/Kg	₽	126	45 _ 177
ND		50.6	42.1		ug/Kg	₽	83	75 <sub>-</sub> 135
ND		50.6	41.4		ug/Kg	₽	82	78 <sub>-</sub> 135
ND		50.6	34.6		ug/Kg	≎	68	45 _ 150
ND		50.6	43.3		ug/Kg	₩	86	69 - 138
ND		50.6	38.6		ug/Kg	*	76	66 _ 150
ND		50.6	32.8		ug/Kg	₩	65	52 - 135
0.30	JB	50.6	40.0		ug/Kg	≎	79	77 <sub>-</sub> 135
ND		50.6	41.1		ug/Kg	₽	81	51 <sub>-</sub> 145
ND		50.6	44.7		ug/Kg	≎	88	73 - 123
ND		50.6	45.4		ug/Kg	₩	90	74 <sub>-</sub> 135
ND		50.6	43.4		ug/Kg	₩	86	73 - 135
ND		50.6	44.9		ug/Kg	☼	89	77 - 135
ND		50.6	41.2		ug/Kg	☼	82	74 - 137
ND		202	173		ug/Kg	₩	86	67 _ 150
ND		50.6	37.3		ug/Kg	☼	74	41 - 138
ND		50.6	40.8		ug/Kg	≎	81	32 - 152
ND		50.6	42.3		ug/Kg	₩	84	77 <sub>-</sub> 135
ND		50.6	42.3		ug/Kg	₩	84	71 <sub>-</sub> 135
1.8	J	50.6	43.5		ug/Kg	₩	83	76 - 136
	Result  8.6  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	Result         Qualifier         Added           8.6         J         202           ND         50.6	Result         Qualifier         Added         Result           8.6         J         202         206           ND         202         255           ND         50.6         42.1           ND         50.6         41.4           ND         50.6         34.6           ND         50.6         38.6           ND         50.6         32.8           0.30         JB         50.6         40.0           ND         50.6         41.1           ND         50.6         44.7           ND         50.6         43.4           ND         50.6         44.9           ND         50.6         41.2           ND         50.6         37.3           ND         50.6         37.3           ND         50.6         40.8           ND         50.6         40.8           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3           ND         50.6	Result         Qualifier         Added         Result         Qualifier           8.6         J         202         206           ND         202         255           ND         50.6         42.1           ND         50.6         41.4           ND         50.6         34.6           ND         50.6         43.3           ND         50.6         38.6           ND         50.6         32.8           0.30         JB         50.6         40.0           ND         50.6         41.1           ND         50.6         44.7           ND         50.6         43.4           ND         50.6         44.9           ND         50.6         41.2           ND         50.6         37.3           ND         50.6         40.8           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3           ND         50.6         42.3	Result         Qualifier         Added         Result         Qualifier         Unit           8.6         J         202         206         ug/Kg           ND         202         255         ug/Kg           ND         50.6         42.1         ug/Kg           ND         50.6         41.4         ug/Kg           ND         50.6         34.6         ug/Kg           ND         50.6         34.6         ug/Kg           ND         50.6         38.6         ug/Kg           ND         50.6         32.8         ug/Kg           ND         50.6         40.0         ug/Kg           ND         50.6         41.1         ug/Kg           ND         50.6         44.7         ug/Kg           ND         50.6         45.4         ug/Kg           ND         50.6         43.4         ug/Kg           ND         50.6         44.9         ug/Kg           ND         50.6         41.2         ug/Kg           ND         50.6         37.3         ug/Kg           ND         50.6         40.8         ug/Kg           ND         50.6         <	Result         Qualifier         Added         Result         Qualifier         Unit         D           8.6         J         202         206         ug/Kg         3           ND         202         255         ug/Kg         3           ND         50.6         42.1         ug/Kg         3           ND         50.6         41.4         ug/Kg         3           ND         50.6         34.6         ug/Kg         3           ND         50.6         43.3         ug/Kg         3           ND         50.6         38.6         ug/Kg         3           ND         50.6         32.8         ug/Kg         3           ND         50.6         32.8         ug/Kg         3           ND         50.6         40.0         ug/Kg         3           ND         50.6         41.1         ug/Kg         3           ND         50.6         44.7         ug/Kg         3           ND         50.6         43.4         ug/Kg         3           ND         50.6         44.9         ug/Kg         3           ND         50.6         44.9         ug/Kg <td>Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           8.6         J         202         206         ug/Kg         ©         98           ND         202         255         ug/Kg         ©         126           ND         50.6         42.1         ug/Kg         ©         83           ND         50.6         41.4         ug/Kg         ©         82           ND         50.6         34.6         ug/Kg         ©         68           ND         50.6         43.3         ug/Kg         ©         68           ND         50.6         38.6         ug/Kg         ©         76           ND         50.6         32.8         ug/Kg         ©         65           0.30         JB         50.6         40.0         ug/Kg         ©         79           ND         50.6         41.1         ug/Kg         ©         81           ND         50.6         44.7         ug/Kg         ©         88           ND         50.6         45.4         ug/Kg         ©         86           ND         50.6</td>	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           8.6         J         202         206         ug/Kg         ©         98           ND         202         255         ug/Kg         ©         126           ND         50.6         42.1         ug/Kg         ©         83           ND         50.6         41.4         ug/Kg         ©         82           ND         50.6         34.6         ug/Kg         ©         68           ND         50.6         43.3         ug/Kg         ©         68           ND         50.6         38.6         ug/Kg         ©         76           ND         50.6         32.8         ug/Kg         ©         65           0.30         JB         50.6         40.0         ug/Kg         ©         79           ND         50.6         41.1         ug/Kg         ©         81           ND         50.6         44.7         ug/Kg         ©         88           ND         50.6         45.4         ug/Kg         ©         86           ND         50.6

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

SIAMENCA JUD ID. 200-3/3/4-2

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37354-B-1-B MS

**Matrix: Solid** 

Analysis Batch: 154355

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 154326

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	ND		50.6	45.5		ug/Kg	*	90	71 - 141	
4-Methyl-2-pentanone (MIBK)	ND		202	197		ug/Kg	₽	97	69 - 150	
Styrene	ND		50.6	42.2		ug/Kg	₩	84	76 - 135	
1,1,2,2-Tetrachloroethane	ND		50.6	43.2		ug/Kg	₽	85	65 - 135	
1,2,3-Trichlorobenzene	ND		50.6	30.2	F	ug/Kg	≎	60	62 _ 135	
1,2,4-Trichlorobenzene	ND		50.6	31.9	F	ug/Kg	₩	63	65 - 135	
Toluene	ND		50.6	42.4		ug/Kg	₽	84	77 - 122	
1,1,1-Trichloroethane	ND		50.6	43.6		ug/Kg	₩	86	70 - 135	
1,1,2-Trichloroethane	ND		50.6	42.5		ug/Kg	₩	84	78 - 135	
Trichloroethene	ND		50.6	42.5		ug/Kg	*	84	77 _ 135	
Vinyl chloride	ND		50.6	36.0		ug/Kg	≎	71	43 - 145	
m-Xylene & p-Xylene	ND		101	80.2		ug/Kg	≎	79	77 <sub>-</sub> 135	
o-Xylene	ND		50.6	42.3		ug/Kg	₩	84	75 - 135	
Tetrachloroethene	ND		50.6	40.9		ug/Kg	₩	81	76 - 135	
1,2-Dichlorobenzene	ND		50.6	38.6		ug/Kg	₩	76	73 - 135	
1,3-Dichlorobenzene	ND		50.6	38.7		ug/Kg	₽	76	69 - 135	
1,4-Dichlorobenzene	ND		50.6	39.6		ug/Kg	₩	78	73 - 135	
cis-1,2-Dichloroethene	ND		50.6	42.5		ug/Kg	≎	84	76 - 135	
cis-1,3-Dichloropropene	ND		50.6	43.2		ug/Kg	₽	85	71 _ 135	
1,1-Dichloroethane	ND		50.6	42.5		ug/Kg	₩	84	70 - 135	
1,1-Dichloroethene	ND		50.6	41.8		ug/Kg	≎	83	79 - 135	
1,2-Dichloroethane	ND		50.6	44.3		ug/Kg	₽	88	69 _ 135	
1,2-Dichloropropane	ND		50.6	42.5		ug/Kg	₩	84	72 - 121	
Ethylbenzene	ND		50.6	40.6		ug/Kg	₩	80	73 - 125	
1,2-Dibromoethane	ND		50.6	43.7		ug/Kg	₩	86	76 <sub>-</sub> 135	
Trichlorofluoromethane	ND		50.6	40.1		ug/Kg	₩	79	48 - 150	

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Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		58 - 140
Toluene-d8 (Surr)	90		80 - 126
4-Bromofluorobenzene (Surr)	101		76 - 127
Dibromofluoromethane (Surr)	87		75 - 121

Lab Sample ID: 280-37354-B-1-C MSD

Matrix: Solid

Analysis Batch: 154355

<b>Client Sample</b>	<b>ID: Matrix</b>	<b>Spike</b>	<b>Duplicate</b>
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Prep Type: Total/NA Prep Batch: 154326

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	8.6	J	214	211		ug/Kg	₩	94	65 - 150	2	28
2-Butanone (MEK)	ND		214	256		ug/Kg	₽	120	45 - 177	0	32
Benzene	ND		53.6	39.4	F	ug/Kg	₩	74	75 - 135	6	20
Chlorobenzene	ND		53.6	35.1	F	ug/Kg	₽	66	78 - 135	16	20
Carbon disulfide	ND		53.6	32.0		ug/Kg	₩	60	45 - 150	8	24
Carbon tetrachloride	ND		53.6	40.3		ug/Kg	₩	75	69 - 138	7	20
1,2-Dibromo-3-Chloropropane	ND		53.6	38.8		ug/Kg	₽	72	66 - 150	1	28
Bromomethane	ND		53.6	32.5		ug/Kg	₩	61	52 - 135	1	22
Bromoform	0.30	JB	53.6	37.9	F	ug/Kg	₽	70	77 - 135	6	20
Chloroethane	ND		53.6	40.0		ug/Kg	*	75	51 <sub>-</sub> 145	3	22

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-37354-B-1-C MSD

**Matrix: Solid** 

Analysis Batch: 154355

**Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA** 

**Prep Batch: 154326** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloroform	ND		53.6	42.5		ug/Kg	₽	79	73 - 123	5	20
Chlorobromomethane	ND		53.6	42.9		ug/Kg	≎	80	74 <sub>-</sub> 135	6	21
Dichlorobromomethane	ND		53.6	40.8		ug/Kg	₩	76	73 - 135	6	20
Chlorodibromomethane	ND		53.6	40.7	F	ug/Kg	₽	76	77 - 135	10	20
Isopropylbenzene	ND		53.6	33.6	F	ug/Kg	₽	63	74 - 137	20	20
2-Hexanone	ND		214	172		ug/Kg	₽	80	67 - 150	0	29
Chloromethane	ND		53.6	35.9		ug/Kg	₽	67	41 - 138	4	25
Dichlorodifluoromethane	ND		53.6	38.0		ug/Kg	₽	71	32 _ 152	7	28
trans-1,2-Dichloroethene	ND		53.6	40.2	F	ug/Kg	₽	75	77 - 135	5	20
trans-1,3-Dichloropropene	ND		53.6	39.3		ug/Kg	₽	73	71 - 135	7	20
Methylene Chloride	1.8	J	53.6	42.1	F	ug/Kg	₩	75	76 - 136	3	21
Methyl tert-butyl ether	ND		53.6	44.5		ug/Kg	₽	83	71 - 141	2	20
4-Methyl-2-pentanone (MIBK)	ND		214	196		ug/Kg	₽	91	69 - 150	0	25
Styrene	ND		53.6	36.3	F	ug/Kg	₩	68	76 - 135	15	20
1,1,2,2-Tetrachloroethane	ND		53.6	40.9		ug/Kg	₩.	76	65 _ 135	5	21
1,2,3-Trichlorobenzene	ND		53.6	22.3	F	ug/Kg	₩	42	62 - 135	30	31
1,2,4-Trichlorobenzene	ND		53.6	22.2	F	ug/Kg	₩	41	65 _ 135	36	26
Toluene	ND		53.6	38.1	F	ug/Kg	₩	71	77 - 122	11	20
1,1,1-Trichloroethane	ND		53.6	41.4		ug/Kg	₩	77	70 - 135	5	20
1,1,2-Trichloroethane	ND		53.6	41.5	F	ug/Kg	₽	77	78 <sub>-</sub> 135	2	20
Trichloroethene	ND		53.6	39.2	F	ug/Kg	₩.	73	77 - 135	8	20
Vinyl chloride	ND		53.6	34.6		ug/Kg	₽	64	43 - 145	4	24
m-Xylene & p-Xylene	ND		107	67.5	F	ug/Kg	₽	63	77 - 135	17	20
o-Xylene	ND		53.6	35.6	F	ug/Kg	₩	66	75 <sub>-</sub> 135	17	20
Tetrachloroethene	ND		53.6	34.9	F	ug/Kg	₽	65	76 <sub>-</sub> 135	16	20
1,2-Dichlorobenzene	ND		53.6	30.4	F	ug/Kg	₽	57	73 - 135	24	20
1,3-Dichlorobenzene	ND		53.6	29.7	F	ug/Kg	₩	55	69 - 135	26	20
1,4-Dichlorobenzene	ND		53.6	30.1	F	ug/Kg	₽	56	73 - 135	27	22
cis-1,2-Dichloroethene	ND		53.6	40.3	F	ug/Kg	≎	75	76 - 135	5	20
cis-1,3-Dichloropropene	ND		53.6	38.5		ug/Kg	₩	72	71 - 135	11	20
1,1-Dichloroethane	ND		53.6	41.1		ug/Kg	≎	77	70 - 135	3	20
1,1-Dichloroethene	ND		53.6	40.3	F	ug/Kg	≎	75	79 <sub>-</sub> 135	4	20
1,2-Dichloroethane	ND		53.6	42.8		ug/Kg	\$	80	69 - 135	3	20
1,2-Dichloropropane	ND		53.6	39.3		ug/Kg	₽	73	72 _ 121	8	20
Ethylbenzene	ND		53.6	34.1	F	ug/Kg	₽	64	73 _ 125	17	20
1,2-Dibromoethane	ND		53.6	40.5		ug/Kg	₽	76	76 - 135	8	20
Trichlorofluoromethane	ND		53.6	37.7		ug/Kg	≎	70	48 - 150	6	33

SD	MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		58 - 140
Toluene-d8 (Surr)	86		80 - 126
4-Bromofluorobenzene (Surr)	100		76 - 127
Dibromofluoromethane (Surr)	85		75 - 121

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-154062/1-A

Matrix: Water

Analysis Batch: 154290

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 154062

мв мв Qualifier RLMDL Unit D Dil Fac Analyte Result Prepared Analyzed 1,1'-Biphenyl ND 10 1.8 ug/L 12/28/12 11:36 12/31/12 16:50 1,2,4,5-Tetrachlorobenzene ND 10 12/28/12 11:36 12/31/12 16:50 1.7 ug/L 1,2,4-Trichlorobenzene ND 4.0 0.28 ug/L 12/28/12 11:36 12/31/12 16:50 1,2-Dichlorobenzene ND 4.0 0.23 ug/L 12/28/12 11:36 12/31/12 16:50 1,3-Dichlorobenzene ND 10 0.30 ug/L 12/28/12 11:36 12/31/12 16:50 1,4-Dichlorobenzene ND 4.0 0.32 ug/L 12/28/12 11:36 12/31/12 16:50 ND 1.4-Dioxane 20 1.7 ug/L 12/28/12 11:36 12/31/12 16:50 2,4,6-Trichlorophenol ND 10 0.29 ug/L 12/28/12 11:36 12/31/12 16:50 ND 10 ug/L 2,4-Dichlorophenol 0.64 12/28/12 11:36 12/31/12 16:50 ND 10 2,2'-oxybis[1-chloropropane] 0.28 ug/L 12/28/12 11:36 12/31/12 16:50 2,3,4,6-Tetrachlorophenol ND 50 2.0 ug/L 12/28/12 11:36 12/31/12 16:50 2,4,5-Trichlorophenol ND 10 ug/L 12/28/12 11:36 12/31/12 16:50 2,4-Dimethylphenol ND 10 0.58 ug/L 12/28/12 11:36 12/31/12 16:50 2,4-Dinitrophenol ND 30 10 ug/L 12/28/12 11:36 12/31/12 16:50 2,4-Dinitrotoluene ND 10 12/28/12 11:36 12/31/12 16:50 1.7 ug/L 2,6-Dinitrotoluene ND 10 1.9 ug/L 12/28/12 11:36 12/31/12 16:50 2-Chloronaphthalene ND 4.0 0.26 12/28/12 11:36 12/31/12 16:50 ug/L 2-Chlorophenol ND 10 2.0 ug/L 12/28/12 11:36 12/31/12 16:50 2-Methylnaphthalene ND 4.0 0.29 ug/L 12/28/12 11:36 12/31/12 16:50 ND 2-Methylphenol 10 0.98 ug/L 12/28/12 11:36 12/31/12 16:50 3 & 4 Methylphenol ND 10 0.25 ug/L 12/28/12 11:36 12/31/12 16:50 2-Nitroaniline ND 10 1.7 ug/L 12/28/12 11:36 12/31/12 16:50 ND 10 2-Nitrophenol 0.39 ug/L 12/28/12 11:36 12/31/12 16:50 3,3'-Dichlorobenzidine ND 50 2.0 ug/L 12/28/12 11:36 12/31/12 16:50 3-Nitroaniline ND 10 2.0 ug/L 12/28/12 11:36 12/31/12 16:50 4,6-Dinitro-2-methylphenol ND 50 40 ug/L 12/28/12 11:36 12/31/12 16:50 4-Bromophenyl phenyl ether ND 10 0.43 ug/L 12/28/12 11:36 12/31/12 16:50 ND 10 4-Chloro-3-methylphenol 2.4 ug/L 12/28/12 11:36 12/31/12 16:50 4-Chloroaniline ND 10 2.1 ug/L 12/28/12 11:36 12/31/12 16:50 ND 10 12/28/12 11:36 12/31/12 16:50 4-Chlorophenyl phenyl ether 1.7 ug/L ND 10 2.0 4-Nitroaniline ug/L 12/28/12 11:36 12/31/12 16:50 4-Nitrophenol ND 10 1.2 ua/L 12/28/12 11:36 12/31/12 16:50 Acenaphthene ND 4.0 0.28 ug/L 12/28/12 11:36 12/31/12 16:50 Acenaphthylene ND 4.0 0.49 ug/L 12/28/12 11:36 12/31/12 16:50 ND 10 Acetophenone 0.24 ug/L 12/28/12 11:36 12/31/12 16:50 ND 4.0 Anthracene 0.42 ug/L 12/28/12 11:36 12/31/12 16:50 ND 10 0.73 ug/L Atrazine 12/28/12 11:36 12/31/12 16:50 Benzaldehyde 10 12/28/12 11:36 12/31/12 16:50 ND 2.0 ug/L ND Benzo[a]pyrene 4.0 0.31 ug/L 12/28/12 11:36 12/31/12 16:50 Benzo[b]fluoranthene ND 4.0 0.53 ug/L 12/28/12 11:36 12/31/12 16:50 Benzo[g,h,i]perylene ND 4.0 0.50 ug/L 12/28/12 11:36 12/31/12 16:50 Benzo[k]fluoranthene ND 4.0 0.46 12/28/12 11:36 12/31/12 16:50 ug/L Benzo[a]anthracene ND 4.0 0.35 ug/L 12/28/12 11:36 12/31/12 16:50 ND Bis(2-chloroethoxy)methane 10 0.97 ug/L 12/28/12 11:36 12/31/12 16:50 Bis(2-chloroethyl)ether ND 10 0.41 ug/L 12/28/12 11:36 12/31/12 16:50 12/28/12 11:36 Bis(2-ethylhexyl) phthalate ND 10 0.56 ug/L 12/31/12 16:50 Butyl benzyl phthalate ND 4.0 1.0 ug/L 12/28/12 11:36 12/31/12 16:50 Caprolactam ND 12/28/12 11:36 12/31/12 16:50 10 5.0 ug/L

TestAmerica Denver

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-154062/1-A

**Matrix: Water** 

Analysis Batch: 154290

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 154062

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	ND		4.0	0.43	ug/L		12/28/12 11:36	12/31/12 16:50	1
Chrysene	ND		4.0	0.54	ug/L		12/28/12 11:36	12/31/12 16:50	1
Dibenz(a,h)anthracene	ND		4.0	0.51	ug/L		12/28/12 11:36	12/31/12 16:50	1
Di-n-butyl phthalate	ND		4.0	1.2	ug/L		12/28/12 11:36	12/31/12 16:50	1
Di-n-octyl phthalate	ND		4.0	0.35	ug/L		12/28/12 11:36	12/31/12 16:50	1
Dibenzofuran	ND		4.0	0.29	ug/L		12/28/12 11:36	12/31/12 16:50	1
Diethyl phthalate	ND		4.0	0.38	ug/L		12/28/12 11:36	12/31/12 16:50	1
Dimethyl phthalate	ND		4.0	0.21	ug/L		12/28/12 11:36	12/31/12 16:50	1
Fluoranthene	ND		4.0	0.20	ug/L		12/28/12 11:36	12/31/12 16:50	1
Fluorene	ND		4.0	0.31	ug/L		12/28/12 11:36	12/31/12 16:50	1
Hexachlorobenzene	ND		10	0.66	ug/L		12/28/12 11:36	12/31/12 16:50	1
Hexachlorobutadiene	ND		10	3.3	ug/L		12/28/12 11:36	12/31/12 16:50	1
Hexachlorocyclopentadiene	ND		50	10	ug/L		12/28/12 11:36	12/31/12 16:50	1
Hexachloroethane	ND		10	2.1	ug/L		12/28/12 11:36	12/31/12 16:50	1
Indeno[1,2,3-cd]pyrene	ND		4.0	0.65	ug/L		12/28/12 11:36	12/31/12 16:50	1
Isophorone	ND		10	0.21	ug/L		12/28/12 11:36	12/31/12 16:50	1
N-Nitrosodi-n-propylamine	ND		10	0.35	ug/L		12/28/12 11:36	12/31/12 16:50	1
n-Nitrosodiphenylamine(as	ND		10	0.44	ug/L		12/28/12 11:36	12/31/12 16:50	1
diphenylamine)									
Naphthalene	ND		4.0	0.29	ug/L		12/28/12 11:36	12/31/12 16:50	1
Nitrobenzene	ND		10	0.81	ug/L		12/28/12 11:36	12/31/12 16:50	1
Pentachlorophenol	ND		50	20	ug/L		12/28/12 11:36	12/31/12 16:50	1
Phenanthrene	ND		4.0	0.26	ug/L		12/28/12 11:36	12/31/12 16:50	1
Phenol	ND		10	2.0	ug/L		12/28/12 11:36	12/31/12 16:50	1
Pyrene	ND		10	0.37	ug/L		12/28/12 11:36	12/31/12 16:50	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	76		51 - 120	12/28/12 11:36	12/31/12 16:50	1
Phenol-d5	82		51 - 120	12/28/12 11:36	12/31/12 16:50	1
2,4,6-Tribromophenol	98		57 <sub>-</sub> 120	12/28/12 11:36	12/31/12 16:50	1
2-Fluorobiphenyl	78		38 - 120	12/28/12 11:36	12/31/12 16:50	1
Nitrobenzene-d5	81		48 - 120	12/28/12 11:36	12/31/12 16:50	1
Terphenyl-d14	91		50 - 120	12/28/12 11:36	12/31/12 16:50	1

Lab Sample ID: LCS 280-154062/2-A

**Matrix: Water** 

Analysis Batch: 154290

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 154062** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2,4-Trichlorobenzene	80.0	60.1		ug/L		75	28 - 120	
1,2-Dichlorobenzene	80.0	58.0		ug/L		73	28 - 120	
1,3-Dichlorobenzene	80.0	55.1		ug/L		69	24 - 120	
1,4-Dichlorobenzene	80.0	56.1		ug/L		70	25 - 120	
2,4,6-Trichlorophenol	80.0	73.2		ug/L		91	62 - 120	
2,4-Dichlorophenol	80.0	68.6		ug/L		86	62 - 120	
2,2'-oxybis[1-chloropropane]	80.0	55.7		ug/L		70	49 - 120	
2,4,5-Trichlorophenol	80.0	72.7		ug/L		91	64 - 120	
2,4-Dimethylphenol	80.0	54.9		ug/L		69	44 - 120	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Lab Sample ID: LCS 280-154062/2-A

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: Lab Control Sample** 

	Prep Type: Total/NA
	Prep Batch: 154062
	%Rec.
%Rec	Limits

Matrix: Water							Prep Type: Total/NA
Analysis Batch: 154290	0.11						Prep Batch: 154062
	Spike		LCS		_	0/ 5	%Rec.
Analyte	Added 80.0	70.9	Qualifier	Unit	D	<b>%Rec</b> 89	Limits
				ug/L			
2,4-Dinitrotoluene	80.0	76.8		ug/L		96	76 - 120
2,6-Dinitrotoluene	80.0	73.8		ug/L		92	73 - 120
2-Chloronaphthalene	80.0	63.9		ug/L		80	51 - 120
2-Chlorophenol	80.0	65.8		ug/L		82	58 - 120
2-Methylnaphthalene	80.0	60.8		ug/L		76	42 - 120
2-Methylphenol	80.0	62.0		ug/L		78	62 - 120
3 & 4 Methylphenol	160	126		ug/L		79	58 - 120
2-Nitroaniline	80.0	70.5		ug/L		88	70 - 120
2-Nitrophenol	80.0	71.8		ug/L		90	59 - 120
3,3'-Dichlorobenzidine	80.0	40.4	J	ug/L		50	10 - 120
3-Nitroaniline	80.0	71.5		ug/L		89	70 - 120
4,6-Dinitro-2-methylphenol	80.0	80.4		ug/L		100	63 _ 125
4-Bromophenyl phenyl ether	80.0	71.4		ug/L		89	69 - 120
4-Chloro-3-methylphenol	80.0	69.9		ug/L		87	69 - 120
4-Chloroaniline	80.0	61.9		ug/L		77	60 - 120
4-Chlorophenyl phenyl ether	80.0	69.7		ug/L		87	67 - 120
4-Nitroaniline	80.0	75.1		ug/L		94	70 - 120
4-Nitrophenol	80.0	76.8		ug/L		96	59 - 129
Acenaphthene	80.0	65.3		ug/L		82	61 - 120
Acenaphthylene	80.0	67.0		ug/L		84	63 - 120
Anthracene	80.0	68.8		ug/L		86	71 - 120
Benzo[a]pyrene	80.0	61.2		ug/L		76	63 - 120
Benzo[b]fluoranthene	80.0	69.7		ug/L		87	65 - 120
Benzo[g,h,i]perylene	80.0	73.6		ug/L		92	69 - 120
Benzo[k]fluoranthene	80.0	70.7		ug/L		88	66 - 120
Benzo[a]anthracene	80.0	70.8		ug/L		88	71 - 120
Bis(2-chloroethoxy)methane	80.0	64.5		ug/L		81	64 - 120
Bis(2-chloroethyl)ether	80.0	63.9		ug/L		80	60 - 120
Bis(2-ethylhexyl) phthalate	80.0	76.1		ug/L		95	62 - 133
Butyl benzyl phthalate	80.0	72.2		ug/L		90	71 - 120
Carbazole	80.0	71.1		ug/L		89	72 - 120
Chrysene	80.0	71.2		ug/L		89	69 - 120
Dibenz(a,h)anthracene	80.0	73.0		ug/L		91	63 - 120
Di-n-butyl phthalate	80.0	74.0		ug/L		93	75 - 120
Di-n-octyl phthalate	80.0	71.2		ug/L		89	71 - 120
Diethyl phthalate	80.0	73.4		ug/L		92	73 - 120
Dimethyl phthalate	80.0	72.3		ug/L		90	73 - 120
Fluoranthene	80.0	72.5		ug/L		91	73 - 120
Fluorene	80.0	67.9		ug/L		85	68 _ 120
Hexachlorobenzene	80.0	71.2		ug/L		89	69 - 120
Hexachlorobutadiene	80.0	56.5		ug/L		71	24 - 120
Hexachlorocyclopentadiene	80.0	20.5	J	ug/L		26	10 - 120
Hexachloroethane	80.0	53.1		ug/L		66	21 - 120
Indeno[1,2,3-cd]pyrene	80.0	70.5		ug/L		88	63 - 120
Isophorone	80.0	66.1		ug/L		83	65 - 120
N-Nitrosodi-n-propylamine	80.0	63.8		ug/L		80	58 - 120

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-154062/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Prep Batch: 154062** 

Analysis Batch: 154290

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
n-Nitrosodiphenylamine(as	68.3	57.0		ug/L		84	66 - 120	
diphenylamine)								
Naphthalene	80.0	62.1		ug/L		78	39 - 120	
Nitrobenzene	80.0	64.9		ug/L		81	59 _ 120	
Pentachlorophenol	80.0	72.7		ug/L		91	57 - 120	
Phenanthrene	80.0	71.4		ug/L		89	71 - 120	
Phenol	80.0	63.7		ug/L		80	61 - 120	
Pyrene	80.0	70.5		ug/L		88	71 - 120	

LCS LCS Surrogate %Recovery Qualifier Limits 78 51 - 120 2-Fluorophenol Phenol-d5 82 51 - 120 2,4,6-Tribromophenol 106 57 - 120 2-Fluorobiphenyl 81 38 - 120 Nitrobenzene-d5 82 48 - 120 50 - 120 Terphenyl-d14 90

Lab Sample ID: LCSD 280-154062/3-A

**Matrix: Water** 

Analysis Batch: 154290

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 154062** 

Analysis Daton, 194290							Fiebi	Dalcii. I	34002
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2,4-Trichlorobenzene	80.0	59.4		ug/L		74	28 - 120	1	42
1,2-Dichlorobenzene	80.0	57.9		ug/L		72	28 - 120	0	49
1,3-Dichlorobenzene	80.0	55.4		ug/L		69	24 - 120	0	52
1,4-Dichlorobenzene	80.0	55.6		ug/L		69	25 - 120	1	52
2,4,6-Trichlorophenol	80.0	72.3		ug/L		90	62 _ 120	1	30
2,4-Dichlorophenol	80.0	68.4		ug/L		86	62 - 120	0	30
2,2'-oxybis[1-chloropropane]	80.0	54.7		ug/L		68	49 - 120	2	30
2,4,5-Trichlorophenol	80.0	71.2		ug/L		89	64 - 120	2	30
2,4-Dimethylphenol	80.0	53.6		ug/L		67	44 - 120	2	30
2,4-Dinitrophenol	80.0	67.3		ug/L		84	55 <sub>-</sub> 120	5	49
2,4-Dinitrotoluene	80.0	75.2		ug/L		94	76 - 120	2	32
2,6-Dinitrotoluene	80.0	72.0		ug/L		90	73 - 120	2	30
2-Chloronaphthalene	80.0	63.8		ug/L		80	51 - 120	0	30
2-Chlorophenol	80.0	64.2		ug/L		80	58 - 120	2	30
2-Methylnaphthalene	80.0	61.1		ug/L		76	42 - 120	0	32
2-Methylphenol	80.0	61.2		ug/L		76	62 - 120	1	30
3 & 4 Methylphenol	160	123		ug/L		77	58 - 120	2	30
2-Nitroaniline	80.0	68.8		ug/L		86	70 - 120	3	30
2-Nitrophenol	80.0	71.2		ug/L		89	59 <sub>-</sub> 120	1	30
3,3'-Dichlorobenzidine	80.0	41.7	J	ug/L		52	10 - 120	3	30
3-Nitroaniline	80.0	70.2		ug/L		88	70 - 120	2	35
4,6-Dinitro-2-methylphenol	80.0	78.3		ug/L		98	63 - 125	3	37
4-Bromophenyl phenyl ether	80.0	69.3		ug/L		87	69 - 120	3	31
4-Chloro-3-methylphenol	80.0	70.3		ug/L		88	69 - 120	1	30
4-Chloroaniline	80.0	61.4		ug/L		77	60 - 120	1	54
4-Chlorophenyl phenyl ether	80.0	69.0		ug/L		86	67 - 120	1	30

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-154062/3-A

**Matrix: Water** 

Analysis Batch: 154290

**Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA** 

Prep Batch: 154062

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4-Nitroaniline	80.0	73.9		ug/L		92	70 - 120	2	34
4-Nitrophenol	80.0	77.5		ug/L		97	59 <sub>-</sub> 129	1	35
Acenaphthene	80.0	65.0		ug/L		81	61 - 120	0	30
Acenaphthylene	80.0	66.1		ug/L		83	63 - 120	1	30
Anthracene	80.0	66.6		ug/L		83	71 - 120	3	30
Benzo[a]pyrene	80.0	60.1		ug/L		75	63 - 120	2	30
Benzo[b]fluoranthene	80.0	72.5		ug/L		91	65 _ 120	4	38
Benzo[g,h,i]perylene	80.0	71.0		ug/L		89	69 - 120	4	30
Benzo[k]fluoranthene	80.0	64.1		ug/L		80	66 - 120	10	37
Benzo[a]anthracene	80.0	68.0		ug/L		85	71 - 120	4	30
Bis(2-chloroethoxy)methane	80.0	63.5		ug/L		79	64 - 120	2	30
Bis(2-chloroethyl)ether	80.0	63.0		ug/L		79	60 - 120	1	34
Bis(2-ethylhexyl) phthalate	80.0	73.1		ug/L		91	62 _ 133	4	30
Butyl benzyl phthalate	80.0	70.2		ug/L		88	71 - 120	3	30
Carbazole	80.0	68.6		ug/L		86	72 - 120	4	30
Chrysene	80.0	69.2		ug/L		87	69 - 120	3	30
Dibenz(a,h)anthracene	80.0	71.3		ug/L		89	63 - 120	2	30
Di-n-butyl phthalate	80.0	71.5		ug/L		89	75 <sub>-</sub> 120	3	30
Di-n-octyl phthalate	80.0	69.7		ug/L		87	71 - 120	2	30
Diethyl phthalate	80.0	71.3		ug/L		89	73 - 120	3	30
Dimethyl phthalate	80.0	70.3		ug/L		88	73 - 120	3	30
Fluoranthene	80.0	69.6		ug/L		87	73 - 120	4	34
Fluorene	80.0	66.8		ug/L		83	68 - 120	2	30
Hexachlorobenzene	80.0	69.7		ug/L		87	69 - 120	2	30
Hexachlorobutadiene	80.0	56.4		ug/L		70	24 - 120	0	47
Hexachlorocyclopentadiene	80.0	22.8	J	ug/L		29	10 - 120	10	72
Hexachloroethane	80.0	52.1		ug/L		65	21 - 120	2	57
Indeno[1,2,3-cd]pyrene	80.0	68.2		ug/L		85	63 - 120	3	30
Isophorone	80.0	65.9		ug/L		82	65 - 120	0	30
N-Nitrosodi-n-propylamine	80.0	62.8		ug/L		79	58 <sub>-</sub> 120	1	30
n-Nitrosodiphenylamine(as	68.3	55.5		ug/L		81	66 - 120	3	37
diphenylamine)									
Naphthalene	80.0	61.7		ug/L		77	39 - 120	1	34
Nitrobenzene	80.0	64.0		ug/L		80	59 - 120	1	30
Pentachlorophenol	80.0	70.8		ug/L		89	57 - 120	3	33
Phenanthrene	80.0	68.1		ug/L		85	71 - 120	5	30
Phenol	80.0	64.1		ug/L		80	61 - 120	1	42
Pyrene	80.0	68.2		ug/L		85	71 - 120	3	30

LCSD LCSD	LCSD	LCSD
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Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol	76	-	51 - 120
Phenol-d5	82		51 - 120
2,4,6-Tribromophenol	103		57 - 120
2-Fluorobiphenyl	78		38 - 120
Nitrobenzene-d5	81		48 - 120
Terphenyl-d14	86		50 <sub>-</sub> 120

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-153994/1-A

**Matrix: Solid** 

Analysis Batch: 154507

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 153994** 

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
4,4'-DDD	ND		1.6	0.53	ug/Kg		12/28/12 09:48	01/03/13 17:33	
4,4'-DDE	ND		1.6	0.23	ug/Kg		12/28/12 09:48	01/03/13 17:33	•
4,4'-DDT	ND		1.6	0.57	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Aldrin	ND		1.6	0.24	ug/Kg		12/28/12 09:48	01/03/13 17:33	
alpha-BHC	ND		1.6	0.21	ug/Kg		12/28/12 09:48	01/03/13 17:33	
beta-BHC	ND		1.6	0.64	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Chlordane (n.o.s.)	0.713	J	1.6	0.21	ug/Kg		12/28/12 09:48	01/03/13 17:33	
delta-BHC	ND		1.6	0.39	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Dieldrin	ND		1.6	0.20	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Endosulfan I	ND		1.6	0.17	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Endosulfan II	ND		1.6	0.28	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Endosulfan sulfate	ND		1.6	0.27	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Endrin	ND		1.6	0.30	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Endrin aldehyde	ND		1.6	0.17	ug/Kg		12/28/12 09:48	01/03/13 17:33	
gamma-BHC (Lindane)	ND		1.6	0.45	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Heptachlor	ND		1.6	0.21	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Heptachlor epoxide	ND		1.6	0.41	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Methoxychlor	ND		3.2	0.44	ug/Kg		12/28/12 09:48	01/03/13 17:33	
Toxaphene	ND		65	15	ug/Kg		12/28/12 09:48	01/03/13 17:33	

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		63 - 124	12/28/12 09:48	01/03/13 17:33	1
Tetrachloro-m-xylene	83		59 - 115	12/28/12 09:48	01/03/13 17:33	1

Lab Sample ID: LCS 280-153994/2-A

**Matrix: Solid** 

Analysis Batch: 154507

Client S	ample ID:	Lab	Control	S	ar	np	le	•
		_		_				

**Prep Type: Total/NA Prep Batch: 153994** 

Analysis Baton: 10-1001							1 TOP Dut	011. 100004
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	16.7	17.3		ug/Kg		104	54 - 130	
4,4'-DDE	16.7	17.4		ug/Kg		104	58 <sub>-</sub> 121	
4,4'-DDT	16.7	17.1		ug/Kg		103	57 <sub>-</sub> 133	
Aldrin	16.7	16.1		ug/Kg		97	63 _ 115	
alpha-BHC	16.7	16.0		ug/Kg		96	64 - 116	
beta-BHC	16.7	16.5		ug/Kg		99	67 _ 115	
delta-BHC	16.7	16.8		ug/Kg		101	67 - 115	
Dieldrin	16.7	16.9		ug/Kg		101	65 - 127	
Endosulfan I	16.7	15.9		ug/Kg		95	65 _ 118	
Endosulfan II	16.7	16.9		ug/Kg		101	71 - 118	
Endosulfan sulfate	16.7	16.3		ug/Kg		98	67 - 123	
Endrin	16.7	19.1		ug/Kg		115	77 - 134	
Endrin aldehyde	16.7	13.4		ug/Kg		80	47 - 115	
gamma-BHC (Lindane)	16.7	16.4		ug/Kg		98	63 - 118	
Heptachlor	16.7	16.4		ug/Kg		98	68 - 115	
Methoxychlor	16.7	16.8		ug/Kg		101	67 _ 130	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-153994/2-A

**Matrix: Solid** 

Analysis Batch: 154507

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

**Prep Batch: 153994** 

LCS LCS

Surrogate	%Recovery Qualifier	Limits
DCB Decachlorobiphenyl	104	63 - 124
Tetrachloro-m-xylene	95	59 - 115

Client Sample ID: NE-02-4

Prep Type: Total/NA

Prep Batch: 153994

**Matrix: Solid** 

Lab Sample ID: 280-37374-6 MS

Analysis Batch: 154637

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
4,4'-DDD	ND		18.2	22.8	D	ug/Kg	₩	125	54 - 130	
4,4'-DDE	58		18.2	75.1	D	ug/Kg	₽	94	58 - 121	
4,4'-DDT	98		18.2	110	4 D	ug/Kg	≎	69	57 <sub>-</sub> 133	
Aldrin	ND		18.2	6.14	JD	ug/Kg	₩	34	63 - 115	
alpha-BHC	ND		18.2	15.4	JD	ug/Kg	₽	85	64 - 116	
beta-BHC	ND		18.2	14.7	JD	ug/Kg	≎	81	67 - 115	
delta-BHC	ND		18.2	14.9	JD	ug/Kg	₽	82	67 - 115	
Dieldrin	ND		18.2	15.1	JD	ug/Kg	≎	83	65 - 127	
Endosulfan I	ND		18.2	13.8	JD	ug/Kg	₩	76	65 - 118	
Endosulfan II	ND		18.2	14.7	JD	ug/Kg	₽	81	71 - 118	
Endosulfan sulfate	ND		18.2	12.8	JD	ug/Kg	≎	70	67 - 123	
Endrin	ND		18.2	17.7	JD	ug/Kg	₽	97	77 - 134	
Endrin aldehyde	ND		18.2	8.45	JD	ug/Kg	₽	46	47 - 115	
gamma-BHC (Lindane)	ND		18.2	14.5	JD	ug/Kg	≎	80	63 - 118	
Heptachlor	ND		18.2	13.7	JD	ug/Kg	₽	75	68 - 115	
Methoxychlor	ND		18.2	13.9	JD	ug/Kg		76	67 _ 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	81	D	63 - 124
Tetrachloro-m-xvlene	62	D	59 <sub>-</sub> 115

Lab Sample ID: 280-37374-6 MSD

**Matrix: Solid** 

Analysis Batch: 154637

Client Sample ID: NE-02-4
Prep Type: Total/NA

**Prep Batch: 153994** 

7											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	ND		17.3	20.3	D	ug/Kg	<u></u>	117	54 - 130	12	20
4,4'-DDE	58		17.3	49.5	D	ug/Kg	₽	-50	58 - 121	41	15
4,4'-DDT	98		17.3	69.6	4 D	ug/Kg	₽	-162	57 - 133	45	29
Aldrin	ND		17.3	14.8	JD	ug/Kg	₽	85	63 - 115	82	50
alpha-BHC	ND		17.3	15.3	JD	ug/Kg	₽	88	64 - 116	1	17
beta-BHC	ND		17.3	15.0	JD	ug/Kg	₽	86	67 - 115	2	17
delta-BHC	ND		17.3	15.3	JD	ug/Kg	*	89	67 - 115	3	19
Dieldrin	ND		17.3	15.3	JD	ug/Kg	₽	88	65 - 127	1	25
Endosulfan I	ND		17.3	13.8	JD	ug/Kg	₽	80	65 - 118	0	26
Endosulfan II	ND		17.3	14.7	JD	ug/Kg	₽	85	71 - 118	0	20
Endosulfan sulfate	ND		17.3	12.9	JD	ug/Kg	₽	74	67 - 123	0	22
Endrin	ND		17.3	17.4	JD	ug/Kg	₽	100	77 - 134	2	30
Endrin aldehyde	ND		17.3	8.91	JD	ug/Kg	₽	51	47 - 115	5	29
gamma-BHC (Lindane)	ND		17.3	14.7	JD	ug/Kg	₽	85	63 - 118	1	24
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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Tetrachloro-m-xylene

# Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 280-37374-6 N Matrix: Solid	ISD							С	lient Samp Prep 1	le ID: NE Type: Tot	
Analysis Batch: 154637									Prep I	Batch: 1	53994
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Heptachlor	ND		17.3	13.9	JD	ug/Kg	*	80	68 - 115	2	18
Methoxychlor	ND		17.3	17.7	JD	ug/Kg	₩	102	67 - 130	24	23
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl	99	D	63 - 124								

59 - 115

# Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 280-153994/1-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 154408	Prep Batch: 153994
мв мв	

l		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	PCB-1016	ND		32	4.9	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
ı	PCB-1221	ND		45	15	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
	PCB-1232	ND		32	5.0	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
١	PCB-1242	ND		32	8.8	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
ı	PCB-1248	ND		32	5.4	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
١	PCB-1254	ND		32	5.3	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
ı	PCB-1260	ND		32	2.6	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
١	PCB-1262	ND		32	11	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
١	PCB-1268	ND		32	3.8	ug/Kg		12/28/12 09:48	01/03/13 02:29	1
ı	Polychlorinated biphenyls, Total	ND		32	2.6	ug/Kg		12/28/12 09:48	01/03/13 02:29	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		59 - 130	12/28/12 09:48	01/03/13 02:29	1
Tetrachloro-m-xylene	93		53 - 128	12/28/12 09:48	01/03/13 02:29	1

Lab Sample ID: LCS 280-153994/3-A	Client Sample ID: Lab Control Sample
Matrix: Solid	Prep Type: Total/NA

Analysis Batch: 154408							Prep	Batch: 153994
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
DCD 1016	66.4	62.5		ua/Ka			E4 122	

Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits		
PCB-1016		66.4	62.5		ug/Kg		94	54 - 132		
PCB-1260		66.4	58.2		ug/Kg		88	62 - 129		
	100 100									

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	85		59 - 130
Tetrachloro-m-xylene	95		53 - 128

Lab Sample ID: 280-37374-6 MS								C	lient Sampl	e ID: NE-02-4
Matrix: Solid									Prep Ty	ype: Total/NA
Analysis Batch: 154408									Prep E	Batch: 153994
_	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCR-1016	ND		67.8	54 9		ua/Ka		81	54 132	

Client Sample ID: NE-02-4 Prep Type: Total/NA

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 280-37374-6 MS Client Sample ID: NE-02-4 **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 154408** Prep Batch: 153994

MS MS Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Limits Unit D %Rec PCB-1260 67.8 73 ND 49.2 62 - 129 ug/Kg

MS MS Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 65 59 - 130 Tetrachloro-m-xylene 85 53 - 128

Lab Sample ID: 280-37374-6 MSD

**Matrix: Solid** 

**Analysis Batch: 154408** Prep Batch: 153994 Sample Sample MSD MSD %Rec. RPD Spike Result Qualifier Limit Analyte Result Qualifier Added Unit D %Rec Limits RPD ₩ PCB-1016 ND 71.8 59.6 ug/Kg 83 54 - 132 8 36 PCB-1260 ND 71.8 54.6 ug/Kg ₽ 76 62 - 129 10 44

MSD MSD Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 67 59 - 130 Tetrachloro-m-xylene 85 53 - 128

#### Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 280-154354/1-A Client Sample ID: Method Blank

**Matrix: Solid** 

**Analysis Batch: 154642** 

мв мв Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 78 2,4-D ND 01/02/13 12:00 01/04/13 13:06 14 ug/Kg ND 12 01/02/13 12:00 01/04/13 13:06 Dinoseb 1.4 ug/Kg 2,4,5-T ND 20 2.3 ug/Kg 01/02/13 12:00 01/04/13 13:06 Silvex (2,4,5-TP) ND 20 1.4 ug/Kg 01/02/13 12:00 01/04/13 13:06

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 2,4-Dichlorophenylacetic acid 63 31 - 105 01/02/13 12:00 01/04/13 13:06

Lab Sample ID: LCS 280-154354/2-A

**Matrix: Solid** 

Analysis Batch: 154642

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 154354

Prep Type: Total/NA

Prep Batch: 154354

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,4-D	89.7	84.5		ug/Kg		94	32 - 115	
Dinoseb	89.7	7.20	J	ug/Kg		8	5 - 166	
2,4,5-T	93.6	88.2		ug/Kg		94	24 - 115	
Silvex (2,4,5-TP)	89.7	84.7		ug/Kg		94	53 - 134	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	78		31 - 105

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

# Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: 280-37374-1 MS

**Matrix: Solid** 

Analysis Batch: 154642

Client Sample ID: SW-01-0 Prep Type: Total/NA

**Prep Batch: 154354** 

-	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
2,4-D	ND		99.4	ND	D	ug/Kg	₩		32 - 115
Dinoseb	ND		99.4	ND	D	ug/Kg	₽	0	5 - 166
2,4,5-T	ND		104	84.5	JD	ug/Kg	₽	81	24 - 115
Silvex (2,4,5-TP)	ND		99.4	65.8	JD	ug/Kg	₩	66	53 - 134
	MS	MS							

Surrogate %Recovery Qualifier

2,4-Dichlorophenylacetic acid 96 D Limits 31 - 105

Lab Sample ID: 280-37374-1 MSD

Matrix: Solid

Analysis Batch: 154642

Prep Type: Total/NA

**Prep Batch: 154354** 

Client Sample ID: SW-01-0

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4-D	ND		99.8	84.4	JD	ug/Kg	<del>\</del>	85	32 - 115	NC	40
Dinoseb	ND		99.8	ND	D	ug/Kg	₩	0	5 - 166	NC	50
2,4,5-T	ND		104	91.2	JD	ug/Kg	₩	88	24 - 115	8	40
Silvex (2,4,5-TP)	ND		99.8	74.8	JD	ug/Kg	₩	75	53 - 134	13	40

MSD MSD

%Recovery Qualifier Limits Surrogate

2,4-Dichlorophenylacetic acid 107 D 31 - 105

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-153926/1-A

**Matrix: Solid** 

Analysis Batch: 154337

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 153926** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2000	660	ug/Kg		12/28/12 12:00	12/31/12 18:11	1
Barium	ND		1000	76	ug/Kg		12/28/12 12:00	12/31/12 18:11	1
Cadmium	ND		500	41	ug/Kg		12/28/12 12:00	12/31/12 18:11	1
Chromium	ND		1500	58	ug/Kg		12/28/12 12:00	12/31/12 18:11	1
Lead	ND		800	270	ug/Kg		12/28/12 12:00	12/31/12 18:11	1
Selenium	ND		1300	860	ug/Kg		12/28/12 12:00	12/31/12 18:11	1
Silver	ND		1000	160	ug/Kg		12/28/12 12:00	12/31/12 18:11	1

Lab Sample ID: LCS 280-153926/2-A

**Matrix: Solid** 

Analysis Batch: 154337

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

**Prep Batch: 153926** 

This is the second of the seco								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	100000	99400		ug/Kg		99	85 _ 110	
Barium	200000	200000		ug/Kg		100	87 _ 112	
Cadmium	10000	10400		ug/Kg		104	87 _ 110	
Chromium	20000	20000		ug/Kg		100	84 - 114	
Lead	50000	49800		ug/Kg		100	86 _ 110	
Selenium	200000	197000		ug/Kg		98	83 - 110	

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-153926/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA **Prep Batch: 153926 Analysis Batch: 154337** 

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Silver 5000 5000 100 87 - 114 ug/Kg

Lab Sample ID: 280-37374-1 MS Client Sample ID: SW-01-0

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 154337 Prep Batch: 153926

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	3500		111000	104000		ug/Kg	*	90	76 - 111	
Barium	160000		221000	388000		ug/Kg	₽	103	52 - 159	
Cadmium	170	J	11100	10500		ug/Kg	₩	94	40 - 130	
Chromium	10000		22100	32300		ug/Kg	₽	99	70 - 200	
Lead	35000		55300	85800		ug/Kg	₩	93	70 - 200	
Selenium	880	J	221000	194000		ug/Kg	₽	87	76 - 104	
Silver	ND		5530	5040		ua/Ka	₩.	91	75 141	

Lab Sample ID: 280-37374-1 MSD Client Sample ID: SW-01-0

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 154337 Prep Batch: 153926

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Added RPD Limit Analyte Result Qualifier Unit D %Rec Limits ₩ Arsenic 3500 111000 104000 ug/Kg 91 76 - 111 0 20 Barium 160000 221000 357000 ug/Kg ₽ 88 52 - 159 20 8 ₽ Cadmium 170 J 11100 10600 ug/Kg 94 40 - 130 20 10000 22100 31000 ₩ 70 - 200 20 Chromium ug/Kg ₽ 35000 55300 82500 87 70 - 200 20 Lead ug/Kg Ċ. 880 221000 196000 ug/Kg 76 - 104 20 Selenium 5530 4990 75 - 141 Silver ND ug/Kg 90 20

Lab Sample ID: MB 280-153928/1-A Client Sample ID: Method Blank

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 154235 Prep Batch: 153928

MR MR

	IVID	IAID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 07:30	12/28/12 19:41	1
Barium	ND		10	0.58	ug/L		12/28/12 07:30	12/28/12 19:41	1
Cadmium	ND		5.0	0.45	ug/L		12/28/12 07:30	12/28/12 19:41	1
Chromium	ND		10	0.66	ug/L		12/28/12 07:30	12/28/12 19:41	1
Lead	ND		9.0	2.6	ug/L		12/28/12 07:30	12/28/12 19:41	1
Selenium	ND		15	4.9	ug/L		12/28/12 07:30	12/28/12 19:41	1
Silver	ND		10	0.93	ug/L		12/28/12 07:30	12/28/12 19:41	1

Lab Sample ID: LCS 280-153928/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154235 Prep Batch: 153928

· · · · · ·								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1000	1090		ug/L		109	88 - 110	
Barium	2000	2030		ug/L		102	90 - 112	
Cadmium	100	110		ug/L		110	88 - 111	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-153928/2-A **Matrix: Water** 

Lab Sample ID: 280-37374-4 MS

**Matrix: Water** 

Analysis Batch: 154235

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 153928

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium	200	214		ug/L		107	90 - 113	
Lead	500	521		ug/L		104	89 - 110	
Selenium	2000	2110		ug/L		105	85 - 112	
Silver	50.0	53.9		ug/L		108	86 - 115	

Client Sample ID: SW-01-GW

Prep Type: Total/NA

**Prep Batch: 153928** 

Analysis Batch: 154235 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Arsenic 7.2 1000 1080 108 ug/L 84 - 124 Barium 430 2000 2430 ug/L 100 85 - 120 ug/L Cadmium 0.68 J 100 108 107 82 - 119 28 200 Chromium 243 ug/L 107 73 - 135 Lead 21 500 515 99 89 - 121 ug/L 2000 2080 Selenium 12 ug/L 104 71 - 140

54.6

ug/L

50.0

Lab Sample ID: 280-37374-4 MSD

ND

**Matrix: Water** 

Silver

Analysis Batch: 154235

Client Sample ID: SW-01-GW

75 - 141

109

Prep Type: Total/NA

Prep Batch: 153928

Alialysis Dalcii. 194239									Fieh	salcii. I	33320
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	7.2	J	1000	1080		ug/L		108	84 - 124	0	20
Barium	430		2000	2450		ug/L		101	85 - 120	1	20
Cadmium	0.68	J	100	108		ug/L		107	82 - 119	0	20
Chromium	28		200	243		ug/L		108	73 - 135	0	20
Lead	21		500	517		ug/L		99	89 - 121	0	20
Selenium	12	J	2000	2090		ug/L		104	71 - 140	0	20
Silver	ND		50.0	54.1		ug/L		108	75 <sub>-</sub> 141	1	20

Lab Sample ID: MB 280-153929/1-A

**Matrix: Water** 

Analysis Batch: 154339

Client Sample ID: Method Blank **Prep Type: Total Recoverable** 

**Prep Batch: 153929** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15	4.4	ug/L		12/28/12 12:00	12/31/12 20:06	1
Barium	0.690	J	10	0.58	ug/L		12/28/12 12:00	12/31/12 20:06	1
Cadmium	ND		5.0	0.45	ug/L		12/28/12 12:00	12/31/12 20:06	1
Chromium	ND		10	0.66	ug/L		12/28/12 12:00	12/31/12 20:06	1
Lead	ND		9.0	2.6	ug/L		12/28/12 12:00	12/31/12 20:06	1
Selenium	ND		15	4.9	ug/L		12/28/12 12:00	12/31/12 20:06	1
Silver	ND		10	0.93	ua/l		12/28/12 12:00	12/31/12 20:06	1

Client: RMC Consultants Inc

Project/Site: U.S.6 at I-25

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-153929/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 154339 **Prep Batch: 153929** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1000	1060		ug/L		106	88 - 110	
Barium	2000	2070		ug/L		103	90 - 112	
Cadmium	100	109		ug/L		109	88 - 111	
Chromium	200	207		ug/L		103	90 - 113	
Lead	500	522		ug/L		104	89 - 110	
Selenium	2000	2110		ug/L		106	85 - 112	
Silver	50.0	54.2		ug/L		108	86 - 115	

Lab Sample ID: 280-37374-4 MS Client Sample ID: SW-01-GW **Prep Type: Dissolved** 

**Matrix: Water** 

Analysis Batch: 154339									Prep Ba	tch: 153929
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	ND		1000	1060		ug/L		106	84 - 124	
Barium	170	В	2000	2220		ug/L		103	85 _ 120	
Cadmium	ND		100	108		ug/L		108	82 _ 119	
Chromium	1.3	J	200	204		ug/L		102	73 <sub>-</sub> 135	
Lead	ND		500	503		ug/L		101	89 - 121	
Selenium	11	J	2000	2080		ug/L		103	71 - 140	
Silver	ND		50.0	53.6		ug/L		107	75 - 141	

Lab Sample ID: 280-37374-4 MSD Client Sample ID: SW-01-GW Matrix: Water **Prep Type: Dissolved** 

Analysis Batch: 154339									Prep E	Batch: 1	53929
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	ND		1000	1060		ug/L		106	84 - 124	0	20
Barium	170	В	2000	2210		ug/L		102	85 - 120	0	20
Cadmium	ND		100	108		ug/L		108	82 - 119	0	20
Chromium	1.3	J	200	205		ug/L		102	73 - 135	0	20
Lead	ND		500	504		ug/L		101	89 - 121	0	20
Selenium	11	J	2000	2090		ug/L		104	71 - 140	1	20
Silver	ND		50.0	54.2		ug/L		108	75 - 141	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 280-154016/1-A Client Sample ID: Method Blank **Matrix: Water** 

Analysis Batch: 154241

Dil Fac Analyte Result Qualifier RL MDL Unit Prepared Analyzed

мв мв

0.20 0.027 ug/L 12/28/12 11:15 Mercury ND 12/28/12 15:38

Lab Sample ID: LCS 280-154016/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 154241 **Prep Batch: 154016** 

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Mercury 5.00 5.04 ug/L 101 84 - 120

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Prep Type: Total/NA **Prep Batch: 154016** 

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 154019** 

**Prep Batch: 154019** 

**Prep Type: Dissolved** 

**Prep Batch: 154019** 

Prep Batch: 154028

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37374-2

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 280-37373-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA **Prep Batch: 154016** 

Analysis Batch: 154241

Spike MS MS Sample Sample

Added Result Qualifier Result Qualifier Limits Analyte Unit D %Rec 5.00 134 75 - 125 Mercury ND 6.69 F ug/L

Lab Sample ID: 280-37373-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154241 Prep Batch: 154016 Sample Sample Spike MSD MSD

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Mercury ND 5.00 6.84 F ug/L 137 75 - 125 20

Lab Sample ID: MB 280-154019/1-A

**Matrix: Water** 

Analysis Batch: 154241 мв мв

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 0.20 0.027 ug/L 12/28/12 11:15 12/28/12 15:15 Mercury ND

Lab Sample ID: LCS 280-154019/2-A Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 154241

LCS LCS Spike %Rec.

Added Analyte Result Qualifier Unit %Rec Limits 5.00 Mercury 4 98 ug/L 100 84 120

Lab Sample ID: 280-37285-I-2-G MS Client Sample ID: Matrix Spike **Matrix: Water Prep Type: Dissolved** 

Analysis Batch: 154241

**Prep Batch: 154019** Sample Sample Spike MS MS %Rec.

Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits ND 5.00 Mercury 5.05 101 75 - 125 ug/L

Lab Sample ID: 280-37285-I-2-H MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Water** 

Analysis Batch: 154241

MSD MSD Sample Sample Spike Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits RPD Limit 5.00 Mercury ND 5.08 ug/L 102 75 - 125 20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 280-154028/1-A Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 154492

MB MB

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Mercury ND 17 5.5 ug/Kg 01/02/13 11:30 01/02/13 18:52

Prep Type: Total/NA

01/04/13 16:24

Client: RMC Consultants Inc

Project/Site: U.S.6 at I-25

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 280-154028/2-A	Client Sample ID: Lab Control Sample

**Matrix: Solid** 

Analysis Batch: 154492

Prep Type: Total/NA Prep Batch: 154028 Spike LCS LCS

Added Result Qualifier Limits Analyte Unit D %Rec 417 87 \_ 111 Mercury 428 ug/Kg 103

Lab Sample ID: 280-37374-1 MS Client Sample ID: SW-01-0 **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 154492 Prep Batch: 154028

Sample Sample Spike MS MS Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Ö Mercury 19 446 345 F ug/Kg 73 87 - 111

Lab Sample ID: 280-37374-1 MSD Client Sample ID: SW-01-0

**Matrix: Solid** 

Analysis Batch: 154492

Prep Batch: 154028 MSD MSD Sample Sample Spike %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 454 524 Mercury 19 ug/Kg

#### Method: 1664A - Oil & Grease (HEM)

Lab Sample ID: MB 280-154686/1-A Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

HEM (Oil & Grease)

Analysis Batch: 154730

Prep Batch: 154686 MB MB Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac

mg/L

1.4 ma/L 01/04/13 13:00

94

81 - 107

Lab Sample ID: LCS 280-154686/2-A Client Sample ID: Lab Control Sample

ND

5.0

**Matrix: Water** 

Analyte

Prep Type: Total/NA Analysis Batch: 154730 Prep Batch: 154686 Spike LCS LCS %Rec.

babbA Result Qualifier Limits Analyte Unit %Rec 40.0 HEM (Oil & Grease) 36.0 mg/L 90 81 - 107

Lab Sample ID: LCSD 280-154686/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA Analysis Batch: 154730 Prep Batch: 154686 LCSD LCSD Spike %Rec. **RPD** Added Analyte Result Qualifier Unit %Rec Limits RPD Limit

37.5

40.0

Method: 9040C - pH

HEM (Oil & Grease)

Lab Sample ID: LCS 280-154179/4 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 154179

Analysis Baton: 104110								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
pH adj. to 25 deg C	7.00	7.050		SU		101	99 - 101	 

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37374-2

**Client Sample ID: Duplicate** 

Prep Type: Total/NA

Method: 9040C - pH (Continued)

Lab Sample ID: LCSD 280-154179/5 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154179

Spike LCSD LCSD %Rec. RPD Added Analyte Result Qualifier %Rec Limits RPD Limit Unit D 7.00 SU 101 99 - 101 0 pH adj. to 25 deg C 7.050

Lab Sample ID: 280-37417-B-2 DU

**Matrix: Water** 

Analysis Batch: 154179

- 1	Analysis Daton, 104115								
ı		Sample	Sample	DU	DU				RPD
	Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
	pH adj. to 25 deg C	7.30		7.350		SU	_	 0.7	5
	Temperature	20.0		20.00		Degrees C		0	10

**Method: Moisture - Percent Moisture** 

Lab Sample ID: 280-37398-B-2 DU **Client Sample ID: Duplicate** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 154096

	Sample	Sample	DU	DU					RPD
Analyte	Resul	t Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Percent Mois	ture 12				%		 	0.3	20
Percent Solid	s 88	3	88		%			0.04	20

Method: SM 2540D - Solids, Total Suspended (TSS)

MR MR

Lab Sample ID: MB 280-154143/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154143

	IND	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			12/28/12 16:10	1

Lab Sample ID: LCS 280-154143/1 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 154143

	<b>Бріке</b>	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Suspended Solids	100	94.0		mg/L		94	86 - 114	

Lab Sample ID: LCSD 280-154143/2 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 154143

Spike LCSD LCSD %Rec. RPD Added Result Qualifier Unit D %Rec Limits RPD Limit 100 **Total Suspended Solids** 90.0 mg/L 90 86 - 114

Lab Sample ID: 280-37378-D-1 DU **Client Sample ID: Duplicate** 

**Matrix: Water** 

Analysis Batch: 154143

7 midiyolo Batolii 10 11 10									
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	F	RPD	Limit
Total Suspended Solids	2.4	J	2.00	J	mg/L			18	10

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Prep Type: Total/NA

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

**GC/MS VOA** 

Analysis Batch: 153872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37114-C-1-B MS	Matrix Spike	Total/NA	Solid	8260B	153919
280-37114-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	153919
280-37374-2	SW-01-4	Total/NA	Solid	8260B	153919
280-37374-3	SW-01-11	Total/NA	Solid	8260B	153919
LCS 280-153919/2-A	Lab Control Sample	Total/NA	Solid	8260B	153919
MB 280-153919/1-A	Method Blank	Total/NA	Solid	8260B	153919

**Prep Batch: 153919** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
280-37114-C-1-B MS	Matrix Spike	Total/NA	Solid	5030B	<del></del>
280-37114-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	
280-37374-2	SW-01-4	Total/NA	Solid	5030B	
280-37374-3	SW-01-11	Total/NA	Solid	5030B	
LCS 280-153919/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-153919/1-A	Method Blank	Total/NA	Solid	5030B	

**Prep Batch: 154297** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	5030B	
280-37374-1 MS	SW-01-0	Total/NA	Solid	5030B	
280-37374-1 MSD	SW-01-0	Total/NA	Solid	5030B	
LCS 280-154297/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-154297/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 154301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	8260B	154297
280-37374-1 MS	SW-01-0	Total/NA	Solid	8260B	154297
280-37374-1 MSD	SW-01-0	Total/NA	Solid	8260B	154297
LCS 280-154297/2-A	Lab Control Sample	Total/NA	Solid	8260B	154297
MB 280-154297/1-A	Method Blank	Total/NA	Solid	8260B	154297

Analysis Batch: 154317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	8260B	
280-37374-8	NE-02-GW	Total/NA	Water	8260B	
280-37417-I-1 MS	Matrix Spike	Total/NA	Water	8260B	
280-37417-I-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 280-154317/4	Lab Control Sample	Total/NA	Water	8260B	
MB 280-154317/5	Method Blank	Total/NA	Water	8260B	

**Prep Batch: 154326** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37354-B-1-B MS	Matrix Spike	Total/NA	Solid	5030B	
280-37354-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	
280-37374-5	NE-02-0	Total/NA	Solid	5030B	
280-37374-6	NE-02-4	Total/NA	Solid	5030B	
280-37374-7	NE-02-9	Total/NA	Solid	5030B	
LCS 280-154326/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 280-154326/1-A	Method Blank	Total/NA	Solid	5030B	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### **GC/MS VOA (Continued)**

#### Analysis Batch: 154355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37354-B-1-B MS	Matrix Spike	Total/NA	Solid	8260B	154326
280-37354-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	154326
280-37374-5	NE-02-0	Total/NA	Solid	8260B	154326
280-37374-6	NE-02-4	Total/NA	Solid	8260B	154326
280-37374-7	NE-02-9	Total/NA	Solid	8260B	154326
LCS 280-154326/2-A	Lab Control Sample	Total/NA	Solid	8260B	154326
MB 280-154326/1-A	Method Blank	Total/NA	Solid	8260B	154326

#### GC/MS Semi VOA

#### **Prep Batch: 154062**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	3520C	
280-37374-8	NE-02-GW	Total/NA	Water	3520C	
LCS 280-154062/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 280-154062/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 280-154062/1-A	Method Blank	Total/NA	Water	3520C	

#### Analysis Batch: 154290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	8270C	154062
280-37374-8	NE-02-GW	Total/NA	Water	8270C	154062
LCS 280-154062/2-A	Lab Control Sample	Total/NA	Water	8270C	154062
LCSD 280-154062/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	154062
MB 280-154062/1-A	Method Blank	Total/NA	Water	8270C	154062

#### GC Semi VOA

#### Prep Batch: 153994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
280-37374-1	SW-01-0	Total/NA	Solid	3546	
280-37374-2	SW-01-4	Total/NA	Solid	3546	
280-37374-3	SW-01-11	Total/NA	Solid	3546	
280-37374-5	NE-02-0	Total/NA	Solid	3546	
280-37374-6	NE-02-4	Total/NA	Solid	3546	
280-37374-6 MS	NE-02-4	Total/NA	Solid	3546	
280-37374-6 MS	NE-02-4	Total/NA	Solid	3546	
280-37374-6 MSD	NE-02-4	Total/NA	Solid	3546	
280-37374-6 MSD	NE-02-4	Total/NA	Solid	3546	
280-37374-7	NE-02-9	Total/NA	Solid	3546	
LCS 280-153994/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 280-153994/3-A	Lab Control Sample	Total/NA	Solid	3546	
MB 280-153994/1-A	Method Blank	Total/NA	Solid	3546	

#### **Prep Batch: 154354**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	8151A
280-37374-1 MS	SW-01-0	Total/NA	Solid	8151A
280-37374-1 MSD	SW-01-0	Total/NA	Solid	8151A
280-37374-2	SW-01-4	Total/NA	Solid	8151A

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

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# GC Semi VOA (Continued)

# Prep Batch: 154354 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-3	SW-01-11	Total/NA	Solid	8151A	
280-37374-5	NE-02-0	Total/NA	Solid	8151A	
280-37374-6	NE-02-4	Total/NA	Solid	8151A	
280-37374-7	NE-02-9	Total/NA	Solid	8151A	
LCS 280-154354/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 280-154354/1-A	Method Blank	Total/NA	Solid	8151A	

#### Analysis Batch: 154408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	8082	153994
280-37374-2	SW-01-4	Total/NA	Solid	8082	153994
280-37374-3	SW-01-11	Total/NA	Solid	8082	153994
280-37374-5	NE-02-0	Total/NA	Solid	8082	153994
280-37374-6	NE-02-4	Total/NA	Solid	8082	153994
280-37374-6 MS	NE-02-4	Total/NA	Solid	8082	153994
280-37374-6 MSD	NE-02-4	Total/NA	Solid	8082	153994
280-37374-7	NE-02-9	Total/NA	Solid	8082	153994
LCS 280-153994/3-A	Lab Control Sample	Total/NA	Solid	8082	153994
MB 280-153994/1-A	Method Blank	Total/NA	Solid	8082	153994

#### Analysis Batch: 154507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-153994/2-A	Lab Control Sample	Total/NA	Solid	8081A	153994
MB 280-153994/1-A	Method Blank	Total/NA	Solid	8081A	153994

#### Analysis Batch: 154637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	8081A	153994
280-37374-2	SW-01-4	Total/NA	Solid	8081A	153994
280-37374-3	SW-01-11	Total/NA	Solid	8081A	153994
280-37374-5	NE-02-0	Total/NA	Solid	8081A	153994
280-37374-6	NE-02-4	Total/NA	Solid	8081A	153994
280-37374-6 MS	NE-02-4	Total/NA	Solid	8081A	153994
280-37374-6 MSD	NE-02-4	Total/NA	Solid	8081A	153994
280-37374-7	NE-02-9	Total/NA	Solid	8081A	153994

#### Analysis Batch: 154642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	8151A	154354
280-37374-1 MS	SW-01-0	Total/NA	Solid	8151A	154354
280-37374-1 MSD	SW-01-0	Total/NA	Solid	8151A	154354
280-37374-2	SW-01-4	Total/NA	Solid	8151A	154354
280-37374-3	SW-01-11	Total/NA	Solid	8151A	154354
280-37374-5	NE-02-0	Total/NA	Solid	8151A	154354
280-37374-6	NE-02-4	Total/NA	Solid	8151A	154354
280-37374-7	NE-02-9	Total/NA	Solid	8151A	154354
LCS 280-154354/2-A	Lab Control Sample	Total/NA	Solid	8151A	154354
MB 280-154354/1-A	Method Blank	Total/NA	Solid	8151A	154354

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

#### **Metals**

#### **Prep Batch: 153926**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	3050B	
280-37374-1 MS	SW-01-0	Total/NA	Solid	3050B	
280-37374-1 MSD	SW-01-0	Total/NA	Solid	3050B	
280-37374-2	SW-01-4	Total/NA	Solid	3050B	
280-37374-3	SW-01-11	Total/NA	Solid	3050B	
280-37374-5	NE-02-0	Total/NA	Solid	3050B	
280-37374-6	NE-02-4	Total/NA	Solid	3050B	
280-37374-7	NE-02-9	Total/NA	Solid	3050B	
LCS 280-153926/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 280-153926/1-A	Method Blank	Total/NA	Solid	3050B	

#### Prep Batch: 153928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	3010A	
280-37374-4 MS	SW-01-GW	Total/NA	Water	3010A	
280-37374-4 MSD	SW-01-GW	Total/NA	Water	3010A	
280-37374-8	NE-02-GW	Total/NA	Water	3010A	
LCS 280-153928/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 280-153928/1-A	Method Blank	Total/NA	Water	3010A	

# Prep Batch: 153929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
280-37374-4	SW-01-GW	Dissolved	Water	3005A	
280-37374-4 MS	SW-01-GW	Dissolved	Water	3005A	
280-37374-4 MSD	SW-01-GW	Dissolved	Water	3005A	
280-37374-8	NE-02-GW	Dissolved	Water	3005A	
LCS 280-153929/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 280-153929/1-A	Method Blank	Total Recoverable	Water	3005A	

#### **Prep Batch: 154016**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37373-A-1-B MS	Matrix Spike	Total/NA	Water	7470A	
280-37373-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	
280-37374-4	SW-01-GW	Total/NA	Water	7470A	
280-37374-8	NE-02-GW	Total/NA	Water	7470A	
LCS 280-154016/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-154016/1-A	Method Blank	Total/NA	Water	7470A	

#### **Prep Batch: 154019**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-I-2-G MS	Matrix Spike	Dissolved	Water	7470A	
280-37285-I-2-H MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	
280-37374-4	SW-01-GW	Dissolved	Water	7470A	
280-37374-8	NE-02-GW	Dissolved	Water	7470A	
LCS 280-154019/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 280-154019/1-A	Method Blank	Total/NA	Water	7470A	

### **Prep Batch: 154028**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	7471A	
280-37374-1 MS	SW-01-0	Total/NA	Solid	7471A	

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

### **Metals (Continued)**

# Prep Batch: 154028 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1 MSD	SW-01-0	Total/NA	Solid	7471A	
280-37374-2	SW-01-4	Total/NA	Solid	7471A	
280-37374-3	SW-01-11	Total/NA	Solid	7471A	
280-37374-5	NE-02-0	Total/NA	Solid	7471A	
280-37374-6	NE-02-4	Total/NA	Solid	7471A	
280-37374-7	NE-02-9	Total/NA	Solid	7471A	
LCS 280-154028/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 280-154028/1-A	Method Blank	Total/NA	Solid	7471A	

#### **Analysis Batch: 154235**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	6010B	153928
280-37374-4 MS	SW-01-GW	Total/NA	Water	6010B	153928
280-37374-4 MSD	SW-01-GW	Total/NA	Water	6010B	153928
280-37374-8	NE-02-GW	Total/NA	Water	6010B	153928
LCS 280-153928/2-A	Lab Control Sample	Total/NA	Water	6010B	153928
MB 280-153928/1-A	Method Blank	Total/NA	Water	6010B	153928

#### Analysis Batch: 154241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37285-I-2-G MS	Matrix Spike	Dissolved	Water	7470A	154019
280-37285-I-2-H MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	154019
280-37373-A-1-B MS	Matrix Spike	Total/NA	Water	7470A	154016
280-37373-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	154016
280-37374-4	SW-01-GW	Dissolved	Water	7470A	154019
280-37374-4	SW-01-GW	Total/NA	Water	7470A	154016
280-37374-8	NE-02-GW	Dissolved	Water	7470A	154019
280-37374-8	NE-02-GW	Total/NA	Water	7470A	154016
LCS 280-154016/2-A	Lab Control Sample	Total/NA	Water	7470A	154016
LCS 280-154019/2-A	Lab Control Sample	Total/NA	Water	7470A	154019
MB 280-154016/1-A	Method Blank	Total/NA	Water	7470A	154016
MB 280-154019/1-A	Method Blank	Total/NA	Water	7470A	154019

#### Analysis Batch: 154337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	6010B	153926
280-37374-1 MS	SW-01-0	Total/NA	Solid	6010B	153926
280-37374-1 MSD	SW-01-0	Total/NA	Solid	6010B	153926
280-37374-2	SW-01-4	Total/NA	Solid	6010B	153926
280-37374-3	SW-01-11	Total/NA	Solid	6010B	153926
280-37374-5	NE-02-0	Total/NA	Solid	6010B	153926
280-37374-6	NE-02-4	Total/NA	Solid	6010B	153926
280-37374-7	NE-02-9	Total/NA	Solid	6010B	153926
LCS 280-153926/2-A	Lab Control Sample	Total/NA	Solid	6010B	153926
MB 280-153926/1-A	Method Blank	Total/NA	Solid	6010B	153926

#### Analysis Batch: 154339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Dissolved	Water	6010B	153929
280-37374-4 MS	SW-01-GW	Dissolved	Water	6010B	153929
280-37374-4 MSD	SW-01-GW	Dissolved	Water	6010B	153929

# **QC Association Summary**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37374-2

### **Metals (Continued)**

# Analysis Batch: 154339 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-8	NE-02-GW	Dissolved	Water	6010B	153929
LCS 280-153929/2-A	Lab Control Sample	Total Recoverable	Water	6010B	153929
MB 280-153929/1-A	Method Blank	Total Recoverable	Water	6010B	153929

#### Analysis Batch: 154492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	7471A	154028
280-37374-1 MS	SW-01-0	Total/NA	Solid	7471A	154028
280-37374-1 MSD	SW-01-0	Total/NA	Solid	7471A	154028
280-37374-2	SW-01-4	Total/NA	Solid	7471A	154028
280-37374-3	SW-01-11	Total/NA	Solid	7471A	154028
280-37374-5	NE-02-0	Total/NA	Solid	7471A	154028
280-37374-6	NE-02-4	Total/NA	Solid	7471A	154028
280-37374-7	NE-02-9	Total/NA	Solid	7471A	154028
LCS 280-154028/2-A	Lab Control Sample	Total/NA	Solid	7471A	154028
MB 280-154028/1-A	Method Blank	Total/NA	Solid	7471A	154028

#### **General Chemistry**

#### Analysis Batch: 154096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-1	SW-01-0	Total/NA	Solid	Moisture	
280-37374-2	SW-01-4	Total/NA	Solid	Moisture	
280-37374-3	SW-01-11	Total/NA	Solid	Moisture	
280-37374-5	NE-02-0	Total/NA	Solid	Moisture	
280-37374-6	NE-02-4	Total/NA	Solid	Moisture	
280-37374-7	NE-02-9	Total/NA	Solid	Moisture	
280-37398-B-2 DU	Duplicate	Total/NA	Solid	Moisture	

#### Analysis Batch: 154143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	SM 2540D	
280-37374-8	NE-02-GW	Total/NA	Water	SM 2540D	
280-37378-D-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 280-154143/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-154143/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 280-154143/3	Method Blank	Total/NA	Water	SM 2540D	

# Analysis Batch: 154179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	9040C	
280-37374-8	NE-02-GW	Total/NA	Water	9040C	
280-37417-B-2 DU	Duplicate	Total/NA	Water	9040C	
LCS 280-154179/4	Lab Control Sample	Total/NA	Water	9040C	
LCSD 280-154179/5	Lab Control Sample Dup	Total/NA	Water	9040C	

#### **Prep Batch: 154686**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	1664A	
280-37374-8	NE-02-GW	Total/NA	Water	1664A	

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# **QC Association Summary**

Client: RMC Consultants Inc
Project/Site: U.S.6 at I-25

TestAmerica Job ID: 280-37374-2

# **General Chemistry (Continued)**

# Prep Batch: 154686 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-154686/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 280-154686/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 280-154686/1-A	Method Blank	Total/NA	Water	1664A	

#### Analysis Batch: 154730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-37374-4	SW-01-GW	Total/NA	Water	1664A	154686
280-37374-8	NE-02-GW	Total/NA	Water	1664A	154686
LCS 280-154686/2-A	Lab Control Sample	Total/NA	Water	1664A	154686
LCSD 280-154686/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	154686
MB 280-154686/1-A	Method Blank	Total/NA	Water	1664A	154686

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: SW-01-0

Date Collected: 12/26/12 08:03

Date Received: 12/26/12 17:05

Lab Sample ID: 280-37374-1

**Matrix: Solid** 

Percent Solids: 90.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.289 g	5 mL	154297	12/31/12 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			154301	12/31/12 18:05	AD	TAL DEN
Total/NA	Prep	3546			32.4 g	10000 uL	153994	12/28/12 09:48	LC	TAL DEN
Total/NA	Analysis	8082		1			154408	01/03/13 03:33	TDJ	TAL DEN
Total/NA	Analysis	8081A		5			154637	01/04/13 12:49	AMP	TAL DEN
Total/NA	Prep	8151A			50.9 g	10000 uL	154354	01/02/13 12:00	DFB	TAL DEN
Total/NA	Analysis	8151A		5			154642	01/04/13 13:51	KJH	TAL DEN
Total/NA	Prep	3050B			1.18 g	100 mL	153926	12/28/12 12:00	RC	TAL DEN
Total/NA	Analysis	6010B		1			154337	12/31/12 18:15	HEB	TAL DEN
Total/NA	Prep	7471A			0.67 g	50 mL	154028	01/02/13 11:30	JM	TAL DEN
Total/NA	Analysis	7471A		1			154492	01/02/13 18:57	JM	TAL DEN
Total/NA	Analysis	Moisture		1			154096	12/28/12 14:26	AFB	TAL DEN

Client Sample ID: SW-01-4 Lab Sample ID: 280-37374-2

Date Collected: 12/26/12 08:12 **Matrix: Solid** 

Date Received: 12/26/12 17:05 Percent Solids: 91.0

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.126 g	5 mL	153919	12/27/12 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			153872	12/27/12 18:28	AD	TAL DEN
Total/NA	Prep	3546			30.4 g	10000 uL	153994	12/28/12 09:48	LC	TAL DEN
Total/NA	Analysis	8082		1			154408	01/03/13 03:54	TDJ	TAL DEN
Total/NA	Analysis	8081A		1			154637	01/04/13 13:05	AMP	TAL DEN
Total/NA	Prep	8151A			53.0 g	10000 uL	154354	01/02/13 12:00	DFB	TAL DEN
Total/NA	Analysis	8151A		1			154642	01/04/13 15:00	KJH	TAL DEN
Total/NA	Prep	3050B			1.01 g	100 mL	153926	12/28/12 12:00	RC	TAL DEN
Total/NA	Analysis	6010B		1			154337	12/31/12 18:32	HEB	TAL DEN
Total/NA	Prep	7471A			0.55 g	50 mL	154028	01/02/13 11:30	JM	TAL DEN
Total/NA	Analysis	7471A		1			154492	01/02/13 19:08	JM	TAL DEN
Total/NA	Analysis	Moisture		1			154096	12/28/12 14:26	AFB	TAL DEN

Client Sample ID: SW-01-11 Lab Sample ID: 280-37374-3

Date Collected: 12/26/12 08:19 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 97.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.488 g	5 mL	153919	12/27/12 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			153872	12/27/12 18:47	AD	TAL DEN
Total/NA	Prep	3546			32.3 g	10000 uL	153994	12/28/12 09:48	LC	TAL DEN
Total/NA	Analysis	8082		1			154408	01/03/13 04:16	TDJ	TAL DEN
Total/NA	Analysis	8081A		1			154637	01/04/13 13:22	AMP	TAL DEN
Total/NA	Prep	8151A			52.2 g	10000 uL	154354	01/02/13 12:00	DFB	TAL DEN
Total/NA	Analysis	8151A		1			154642	01/04/13 15:23	KJH	TAL DEN

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Client: RMC Consultants Inc Project/Site: U.S.6 at I-25

Client Sample ID: SW-01-11

Client Sample ID: SW-01-GW

Date Collected: 12/26/12 09:45

Date Received: 12/26/12 17:05

Date Collected: 12/26/12 08:19

Date Received: 12/26/12 17:05

Lab Sample ID: 280-37374-3

Matrix: Solid

Percent Solids: 97.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	100 mL	153926	12/28/12 12:00	RC	TAL DEN
Total/NA	Analysis	6010B		1			154337	12/31/12 18:35	HEB	TAL DEN
Total/NA	Prep	7471A			0.60 g	50 mL	154028	01/02/13 11:30	JM	TAL DEN
Total/NA	Analysis	7471A		1			154492	01/02/13 19:11	JM	TAL DEN
Total/NA	Analysis	Moisture		1			154096	12/28/12 14:26	AFB	TAL DEN

Lab Sample ID: 280-37374-4

Matrix: Water

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	154317	01/02/13 13:04	MRM	TAL DEN
Total/NA	Prep	3520C			1045.6 mL	1000 uL	154062	12/28/12 11:36	BMS	TAL DEN
Total/NA	Analysis	8270C		1			154290	12/31/12 23:21	DCK	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	153928	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:46	HEB	TAL DEN
Dissolved	Prep	7470A			30 mL	30 mL	154019	12/28/12 11:15	JM	TAL DEN
Dissolved	Analysis	7470A		1			154241	12/28/12 15:29	JM	TAL DEN
Total/NA	Prep	7470A			30 mL	30 mL	154016	12/28/12 11:15	JM	TAL DEN
Total/NA	Analysis	7470A		1			154241	12/28/12 15:52	JM	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	153929	12/28/12 12:00	RC	TAL DEN
Dissolved	Analysis	6010B		1			154339	12/31/12 20:11	HEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	25 mL	250 mL	154143	12/28/12 16:10	MW	TAL DEN
Total/NA	Analysis	9040C		1			154179	12/29/12 12:14	DA	TAL DEN
Total/NA	Prep	1664A			572 mL	1000 mL	154686	01/04/13 13:00	AFB	TAL DEN
Total/NA	Analysis	1664A		1			154730	01/04/13 16:24	AFB	TAL DEN

Client Sample ID: NE-02-0

Lab Sample ID: 280-37374-5

Date Collected: 12/26/12 11:14

Matrix: Solid

Date Received: 12/26/12 17:05 Percent Solids: 92.3

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.506 g	5 mL	154326	01/02/13 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			154355	01/02/13 17:34	JR	TAL DEN
Total/NA	Prep	3546			32.1 g	10000 uL	153994	12/28/12 09:48	LC	TAL DEN
Total/NA	Analysis	8082		1			154408	01/03/13 04:37	TDJ	TAL DEN
Total/NA	Analysis	8081A		200			154637	01/04/13 13:39	AMP	TAL DEN
Total/NA	Prep	8151A			50.8 g	10000 uL	154354	01/02/13 12:00	DFB	TAL DEN
Total/NA	Analysis	8151A		5			154642	01/04/13 15:45	KJH	TAL DEN
Total/NA	Prep	3050B			1.01 g	100 mL	153926	12/28/12 12:00	RC	TAL DEN
Total/NA	Analysis	6010B		1			154337	12/31/12 18:37	HEB	TAL DEN
Total/NA	Prep	7471A			0.60 g	50 mL	154028	01/02/13 11:30	JM	TAL DEN
Total/NA	Analysis	7471A		1			154492	01/02/13 19:13	JM	TAL DEN

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Client: RMC Consultants Inc

Project/Site: U.S.6 at I-25

Client Sample ID: NE-02-0 Lab Sample ID: 280-37374-5

Date Collected: 12/26/12 11:14 Matrix: Solid

Date Received: 12/26/12 17:05

Dil Batch Batch Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Analysis Moisture 154096 12/28/12 14:26 AFB TAL DEN

Client Sample ID: NE-02-4 Lab Sample ID: 280-37374-6

Date Collected: 12/26/12 11:26 **Matrix: Solid** Date Received: 12/26/12 17:05 Percent Solids: 91.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.989 g	5 mL	154326	01/02/13 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			154355	01/02/13 18:16	JR	TAL DEN
Total/NA	Prep	3546			31.4 g	10000 uL	153994	12/28/12 09:48	LC	TAL DEN
Total/NA	Analysis	8082		1			154408	01/03/13 04:58	TDJ	TAL DEN
Total/NA	Analysis	8081A		10			154637	01/04/13 13:56	AMP	TAL DEN
Total/NA	Prep	8151A			52.2 g	10000 uL	154354	01/02/13 12:00	DFB	TAL DEN
Total/NA	Analysis	8151A		1			154642	01/04/13 16:08	KJH	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	153926	12/28/12 12:00	RC	TAL DEN
Total/NA	Analysis	6010B		1			154337	12/31/12 18:39	HEB	TAL DEN
Total/NA	Prep	7471A			0.57 g	50 mL	154028	01/02/13 11:30	JM	TAL DEN
Total/NA	Analysis	7471A		1			154492	01/02/13 19:15	JM	TAL DEN
Total/NA	Analysis	Moisture		1			154096	12/28/12 14:26	AFB	TAL DEN

Client Sample ID: NE-02-9 Lab Sample ID: 280-37374-7 Date Collected: 12/26/12 11:32 Matrix: Solid

Date Received: 12/26/12 17:05 Percent Solids: 96.6

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.523 g	5 mL	154326	01/02/13 06:00	AD	TAL DEN
Total/NA	Analysis	8260B		1			154355	01/02/13 17:55	JR	TAL DEN
Total/NA	Prep	3546			30.8 g	10000 uL	153994	12/28/12 09:48	LC	TAL DEN
Total/NA	Analysis	8082		1			154408	01/03/13 06:02	TDJ	TAL DEN
Total/NA	Analysis	8081A		5			154637	01/04/13 14:46	AMP	TAL DEN
Total/NA	Prep	8151A			50.4 g	10000 uL	154354	01/02/13 12:00	DFB	TAL DEN
Total/NA	Analysis	8151A		1			154642	01/04/13 16:31	KJH	TAL DEN
Total/NA	Prep	3050B			1.03 g	100 mL	153926	12/28/12 12:00	RC	TAL DEN
Total/NA	Analysis	6010B		1			154337	12/31/12 18:41	HEB	TAL DEN
Total/NA	Prep	7471A			0.61 g	50 mL	154028	01/02/13 11:30	JM	TAL DEN
Total/NA	Analysis	7471A		1			154492	01/02/13 19:18	JM	TAL DE
Total/NA	Analysis	Moisture		1			154096	12/28/12 14:26	AFB	TAL DEN

#### **Lab Chronicle**

Client: RMC Consultants Inc Project/Site: U.S.6 at I-25 TestAmerica Job ID: 280-37374-2

Lab Sample ID: 280-37374-8

Matrix: Water

Client Sample ID: NE-02-GW

Date Collected: 12/26/12 13:05 Date Received: 12/26/12 17:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	154317	01/02/13 13:33	MRM	TAL DEN
Total/NA	Prep	3520C			1048.4 mL	1000 uL	154062	12/28/12 11:36	BMS	TAL DEN
Total/NA	Analysis	8270C		1			154290	12/31/12 23:40	DCK	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	153928	12/28/12 07:30	RC	TAL DEN
Total/NA	Analysis	6010B		1			154235	12/28/12 19:56	HEB	TAL DEN
Dissolved	Prep	7470A			30 mL	30 mL	154019	12/28/12 11:15	JM	TAL DEN
Dissolved	Analysis	7470A		1			154241	12/28/12 15:31	JM	TAL DEN
Total/NA	Prep	7470A			30 mL	30 mL	154016	12/28/12 11:15	JM	TAL DEN
Total/NA	Analysis	7470A		1			154241	12/28/12 15:54	JM	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	153929	12/28/12 12:00	RC	TAL DEN
Dissolved	Analysis	6010B		1			154339	12/31/12 20:19	HEB	TAL DEN
Total/NA	Analysis	SM 2540D		1	25 mL	250 mL	154143	12/28/12 16:10	MW	TAL DEN
Total/NA	Analysis	9040C		1			154179	12/29/12 12:15	DA	TAL DEN
Total/NA	Prep	1664A			550 mL	1000 mL	154686	01/04/13 13:00	AFB	TAL DEN
Total/NA	Analysis	1664A		1			154730	01/04/13 16:24	AFB	TAL DEN

#### Laboratory References:

EMLab-OC = EMLab P&K Costa Mesa, 3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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Report for:

**Donna Rydberg** TestAmerica-Denver 4955 Yarrow Street Arvada, CO 80002

Project: 280-37374-2 EML ID: 1009888 Regarding:

Approved by:

Dates of Analysis: Asbestos-EPÁ Method 600/R-93/116: 01-03-2013

Technical Manager Miguel Ines

Thiguel Constantion Ina

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01267))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K, LLC

EMLab ID: 1009888, Page 1 of 2

3585 Cadillac Ave, Suite A, Costa Mesa, CA 92626 (866) 465-6653 Fax (858) 569-5806 www.emlab.com

Client: TestAmerica-Denver

C/O: Donna Rydberg

Re: 280-37374-2

Date of Sampling: 12-26-2012

Date of Receipt: 12-28-2012

Date of Report: 01-03-2013

#### ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

**Total Samples Submitted:** 2

**Total Samples Analysed:** 2

Total Samples with Layer Asbestos Content > 1%:

**Location: SW-01-0 (280-37374-1)**Lab ID-Version‡: 4513286-1

Sample Layers	Asbestos Content
Brown Soil	ND
<b>Composite Non-Asbestos Content:</b>	< 1% Cellulose
Sample Composite Homogeneity:	Good

**Location: NE-02-0 (280-37374-5)**Lab ID-Version‡: 4513287-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Good

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab ID: 1009888, Page 2 of 2

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# Chain of Custody Record

TestAmerica Denver				•	)— ·						Tost ≱	TestAmerica
4900 Fetrow Street Arvade, CO 60002 Phone (303) 756-0100 Fax (303) 431-7171				hain	u Pir	stody	Chain of Gustody Record				THE COVER HE CAN	THE LEADER IN COMMONMENTAL TOSTING
Client Information (Sub Contract Lab)	58ಗ್ರಾರ್ಡಿ	:		Ryc	i.ab Pw. Rydbergi, Donna R	ma R		Camer	Camer Tracking No(s):	33	CDC No: 280-165851.1	
	Phone:			idonna	E-Mei:  donna.ŋdberg@testameric	g@testan	nericainc.com	_			Page 1 of 1	
Companys EML=b P&K					;		Analysts	Requested	Ĕ.		лф# 280-37374-2	
Andrese: 3585 Cadillac Ava, Suite A,	Due Date Requested: 1/7/2013	17									Preservation Codes:	65:
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	·	Sample	Sample Type	Matrix (wwate, seadd:	idenkerela igene albid	CONTRACT						
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab)	G=grab)   srznawawa)	<b>※</b> 原 ※						弧叉	Special Instructions(Note:
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NE-02-0 (260-37374-5)	12/26/12	11:14 Mountain		Solid		×						
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Possible Hazard identification Unconfirmed					- Sau	o oz uvijek — jesodsją ojdues	<u>.</u>	be assess	Disposal By Lab	u aus sajd	(A fee may be assessed if samples are retained longer than 1 month)	Months
Deliverable Requested: I, II, III, IV, Other (spacify)					ads.	daj tnetr	Special Instructions/OC Requirements:	ements:				
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Custody Seal's Inlact: Custody Seal No.:	•	::	: ; ;			Cocke Ten	Cooler Temperature(s) °C and Other Remerks:	her Fremerks:				

# **Login Sample Receipt Checklist**

Client: RMC Consultants Inc Job Number: 280-37374-2

Login Number: 37374 List Source: TestAmerica Denver

List Number: 1

Creator: Underwood, Tim

Creator. Onderwood, rim		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Sampler ID JIST TO THE THE TOOK TEMPERICAL T

Sampler ID

**Custody Record** 

Chain of

Special Instructions/ Conditions of Receipt Chain of Custody Number 170750 Page. 551/Hd 551/Hd THE LEADER IN ENVIRONMENTAL TESTING メメアメ 21/20/21 Analysis (Attach list it Lab Number A1F45/80103 \$808/4|218/41808 \$\$ co +eadet <del>メ</del>メヌヌ Jason Kahlift Daing Musikety Containers & Preservatives HOBN HCI Telephone Number (Area Code)/Fax Number EONH Drinking Water? Yes □ No 🖈 ₽OSZH Clark Morray 303, 980, 4101 Site Contact S carrier/Waybill Number 3 1 lios Matrix Seq. メメ Project Manager snoenby ıį⊬ **ज्**भुज् 1132 0863 F111 12/26/12 80033 12295 W 48Th Am UNITA What Rides CO 800 Sample I.D. No. and Description (Containers for each sample may be combined on one line) RMC Consistants, Inc Project Name and Location (State)
US & at I-25
Contract/Purchase Order/Quote No. 3 E12,023154 Wheat Ridge NE-62-0 NE-192-9 NE-02-14 25 - BI 1 5 w - 101 - 4 0-10-ms 5w-01-FAL-4124-280 (0508)

OC Requirements (Specify) X Disposal By Lab ☐ Return To Client Sample Disposal 💢 Unknown ☐ Paison B Skin Irritant | Flammable Possible Hazard Identification Turn Around Time Required

☐ Non-Hazard

**V** Other 21 Days 🗌 7 Days

Received By

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(A fee may be assessed if samples are retained longer than 1 month)

Months

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NE-02 - GM

24 Hours

2. Relinquished By

3. Relinquished By Comments

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