

GW - 008

C-141s



May 14, 2014

Mr. Carl J. Chavez
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Soil Remediation Summary Report and Remediation Plan
Monument Compressor Station
Monument, New Mexico

Dear Mr. Chavez:

El Paso Natural Gas (EPNG), a Kinder Morgan Company, is pleased to submit this Soil Remediation Summary Report and Remediation Plan (RP) to the New Mexico Oil Conservation Division (NM-OCD), Environmental Bureau of the New Mexico Energy, Minerals & Natural Resources Department. This report documents the remediation activities that were completed to assess the extent of benzene, toluene, ethylbenzene, and xylenes (BTEX), Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO), and chloride impacted soils at the EPNG Monument Compressor Station located at 47 Brady Lane, Monument, Lea County, New Mexico. A Site Location map and Site Details map are presented as Figure 1 and Figure 2, respectively.

BACKGROUND AND REMEDIATION INFORMATION

On January 30, 2014, operations noticed discoloration on the ground surface near the waste oil tank located in the southern portion of the station. Precautionary procedures were implemented to close valves and shut in the facilities primary drain line to the tank. The NM-OCD was notified approximately 2 hours after the discovery and confirmation of the leak (see Appendix A for C-141 Form). An emergency One Call was initiated and excavation activities began on January 31, 2014. The surface discoloration was discovered to be the result of a leaking drain line which feeds the tank. The liquids from the drain line are a mixture of used oil and wash water (fresh water used to wash off and clean the compressors.) The initial excavation was approximately 10 feet by 10 feet tapering down to 7 feet below ground surface (bgs). All excavated material was placed on plastic and segregated as per stained and unstained soils. Soil samples were collected from all four walls and the stock piled soils. Soil samples collected for laboratory analysis were placed in laboratory supplied containers, placed on ice in a cooler and delivered to the laboratory for the analysis of BTEX by EPA Method 8021B and TPH by EPA 8015D. Table 1 below summarizes the sample results.

Table 1 – Initial Excavation Sampling Results

Constituents	Samples – Date Collected 02-10-2014					
	North Side	South Side	East Side	West Side	East Spoil	West Spoil
	7' bgs	7' bgs	7' bgs	7' bgs		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Toluene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
TPH – GRO	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
TPH – DRO	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0

On March 17, 2014, EPNG contracted EnviroClean Services, L.L.C. to perform additional excavation to remove any remaining impacted soils from the walls and base of the initial dig. The additional soil removal resulted in an excavation that was approximately 25 feet by 25 feet by 23 feet deep. During the additional excavation, no soil samples were collected and were only evaluated using a Photoionization Detector (PID). Side wall results ranged from 72 ppm to 2.3 ppm from the PID; however, bottom results indicated a high of 1,380 ppm at 12 feet bgs and 500 ppm value from 23 feet. Due to the location of underground utilities and the reach limit of the excavator, the excavation was stopped.

On April 8, 2014, EPNG contracted Conestoga-Rovers and Associates (CRA) to collect a soil sample at the bottom of the excavation. The sample was collected using a decontaminated hand auger and was advanced to 25 feet bgs. Finally, on April 29, 2014 additional side wall and spoil pile confirmation samples were collected. The side wall samples were collected from 20 feet bgs to account for potential horizontal migration of contaminants as a result of elevated PID readings from the excavation in March. The spoil pile samples were collected from both the stained and unstained piles. Each sample was composited from 5 to 7 locations to adequately represent the entire pile. Soil samples collected for laboratory analysis were placed in laboratory supplied containers, placed on ice in a cooler and delivered to the laboratory for the analysis of BTEX by EPA Method 8021B, TPH by TX 1005 (4-8-14 sample only) and EPA 8015D (4-29-14), Chloride by EPA SM 4500-Cl-B, and for the soil piles only, RCRA Total Metals to determine disposal characteristics. Table 2 summarizes the results from the additional sampling events.

Table 2 – Additional Excavation Sampling Results

Constituents	Samples – Dates Collected 04-08-2014 & 04-29-2014							
	Excavation- 25' – 4-8-14	North Side 20'	South Side 20'	East Side 20'	West Side 20'	East Pile	Middle Pile	West Pile
	25' bgs	20' bgs	20 bgs	20' bgs	20' bgs			
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Toluene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
TPH – GRO	<50.0	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
TPH – DRO	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	58.9
Chloride	186	297	198	149	50	149	50	50
Total Silver						<0.500	<0.500	<0.500
Total Arsenic						<2.00	<2.00	<2.00
Total Barium						278	73.5	86.1
Total Cadmium						<0.500	<0.500	<0.500
Total Chromium						4.76	6.99	7.83
Total Mercury						<0.0250	<0.0250	<0.0250
Total Lead						<1.00	2.17	1.71
Total Selenium						<2.00	<2.00	<2.00

A Sample Location map is presented in Figure 3. A copy of the certified laboratory report is presented in Appendix B. Photo documentation of the remediation and sampling activities are presented in Appendix C.

REMEDIATION PLAN

EPNG evaluated clean-up criteria following NM-OCD “*Guidelines for Remediation of Leaks, Spills and Releases*”, dated August 13, 1993. The action levels were determined based on the following ranking criteria:

1. Depth To Ground Water (Ranking Score) – <50 feet Score: **20**
(groundwater depth was estimated, however the most conservative value was chosen)
2. Wellhead Protection Area (Ranking Score) - <1000 feet from a water source & <200 feet from private domestic water source – No Score: **0**
3. Distance to Surface Water Body (Ranking Score) - >1000 horizontal feet Score: **0**
4. Total Ranking Score (Total Score - **20**), therefore the clean-up levels are as follows:
 - Benzene (mg/kg) 10
 - BTEX (mg/kg) 50
 - TPH (mg/kg) 100

EPNG evaluated Chloride concentrations in the soil, pursuant to NM-OCD delineation standard of 250 mg/kg. All Chloride samples were below delineation levels, with the exception of one sample collected on the north wall of the excavation. The Chloride value was 297 mg/kg, which exceeds the delineation criteria, however, EPNG believes this value poses no threat to groundwater in the area and therefore requests that no additional excavation be performed at the site. With both local and regional data documenting the current condition of the aquifer, EPNG would like to propose the value for Chloride Closure Criteria for this site to be 600 mg/kg as per Table 1 of the “New Pit Rule” (19.15.17 NMAC).

Upon evaluating the excavation sampling results with the clean-up criteria values, all soil remediation action levels have been met.

EPNG recommends the following closure/remedial strategy:

- As a result of a clean bottom excavation sample, groundwater will not be evaluated.
- No additional excavation is planned.
- Replace soils from the excavation that were segregated and samples confirm that no adverse impact exists. The remaining soils, to bring the excavation to grade, will be clean fill with road base. The soils segregate as “stained soils” will be disposed of as a non-hazardous waste. All disposal manifests will be supplied with the Final Report (C-141 Form).
- As an extra precaution, a vault will be placed around and underneath the repaired piping, in order to perform periodic inspections of the pipes integrity and collect any liquids, if necessary, resulting from a leak.

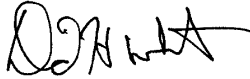
CONCLUSION/RECOMMENDATIONS

Upon completion of the proposed closure/remedial strategy and disposal of the excavated material, EPNG will provide the final C-141 Form to the NM-OCD. EPNG plans to dispose of the excavated soils at Lea Land Landfill in Carlsbad, NM following approval from NM-OCD.

If you have additional comments or concerns about this remediation approach, please contact David White at (713) 369-9556 or david_white@kindermorgan.com.

Sincerely,

El Paso Natural Gas, L.L.C.

A handwritten signature in black ink, appearing to read 'D. White', with a stylized flourish at the end.

David H. White, P.G. (TX 2577)
EHS Remediation Project Manager

Attachments:	Figure 1	– Site Location Map
	Figure 2	– Site Details Map
	Figure 3	– Sample Location Map
	Appendix A	– Initial Form C-141
	Appendix B	– Laboratory Analytical Data
	Appendix C	– Photographic Documentation

Figure 1. Site Location Map

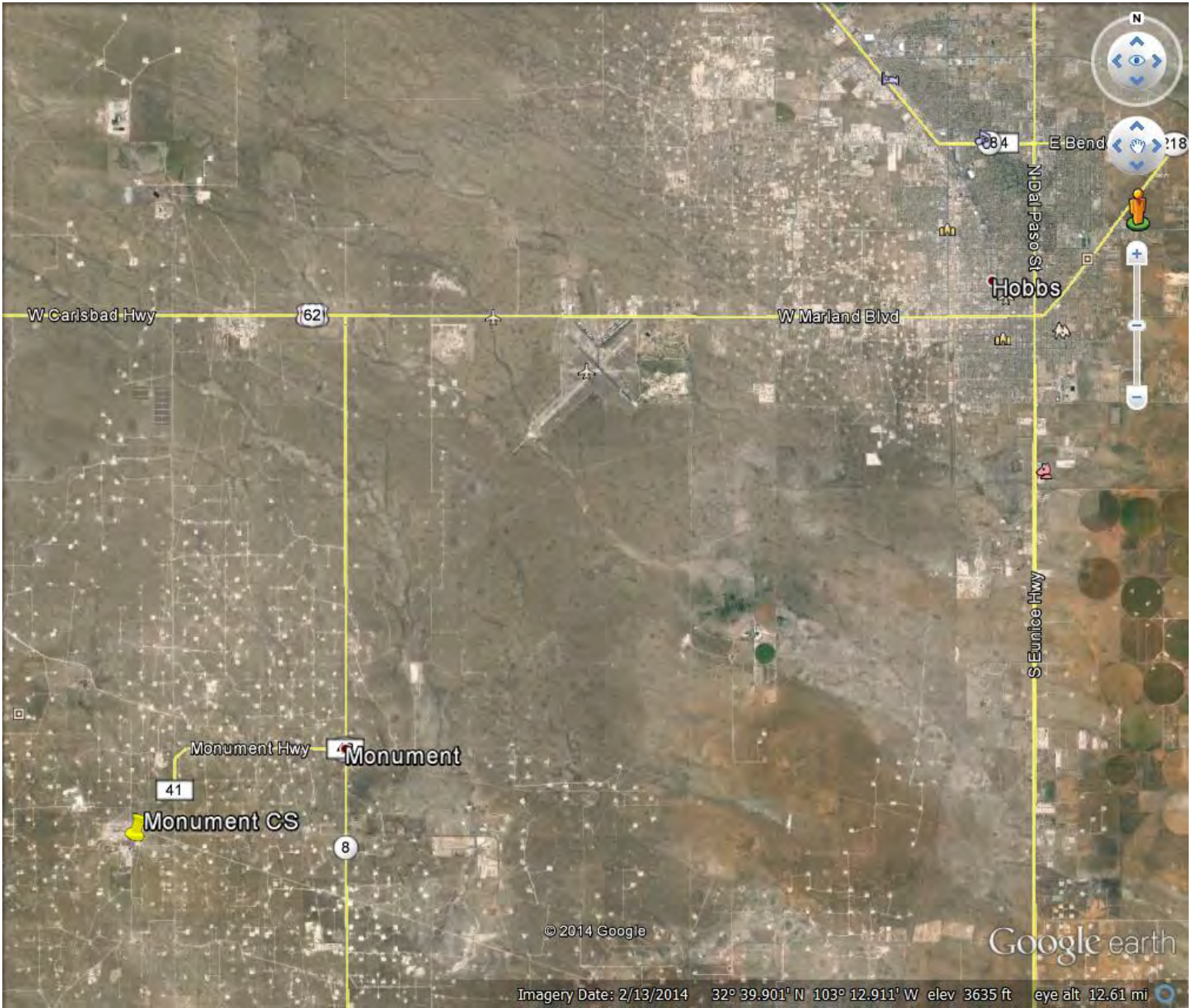


Figure 2. Site Details Map



Figure 3. Sample Location Map



Appendix A
Initial Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company <u>El Paso Natural Gas (owned by Kinder Morgan)</u>	Contact <u>Glen Thompson</u>
Address <u>47 Brady Lane, Monument, NM 88265</u>	Telephone No. <u>(432) 333-5518</u>
Facility Name <u>Monument Compressor Station</u>	Facility Type <u>Natural Gas Compressor Station</u>
Surface Owner <u>Kinder Morgan</u>	Mineral Owner _____ API No. _____

LOCATION OF RELEASE

Unit Letter <u>NE 1/4 of NW 1/4</u>	Section <u>1</u>	Township <u>20S</u>	Range <u>36E</u>	Feet from the _____	North/South Line _____	Feet from the _____	East/West Line _____	County <u>Lea</u>
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Latitude North 32.3620 Longitude West 103.1828

NATURE OF RELEASE

Type of Release <u>Oily water</u>	Volume of Release <u>Estimated 5 gallons</u>	Volume Recovered <u>To be determined</u>
Source of Release <u>PVC drain line</u>	Date and Hour of Occurrence <u>Unknown</u>	Date and Hour of Discovery <u>01/30/2014 2:00 p.m. (MST)</u>
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? <u>Carl Chavez</u>	
By Whom? <u>Glen Thompson</u>	Date and Hour <u>01/30/2014 4:18 p.m. (MST)</u>	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

Describe Cause of Problem and Remedial Action Taken.*

At approximately 2:00 p.m. (MST) during an hourly plant walk around, the operator noticed a discolored 1 ft. by 3 ft. area of ground surface approximately 45 ft. northeast of the southern storage building. Upon verification that the leak was from the facility's primary drain line, the technician closed the valves on all air accumulation tanks and shutdown the facility reverse osmosis (RO) tank in order to isolate the header of the drain line. Carl Chavez with the NMOCD was notified at 4:18 p.m. (MST). An Emergency One Call was made to secure clearances prior to excavating any impacted soil. At approximately 11:45 a.m. (MST) on 01/31/2014, Operations received the final clearance from the One Call. A contractor is on-site to conduct the excavation.

Describe Area Affected and Cleanup Action Taken.*

The impacted soil will be excavated down to the pvc drain line. The contractor will continue to expose the drain line in order to locate the source of the leak so that repairs can be made to the drain line. The impacted soil will be placed on 6 mil. plastic and as directed by the NMOCD the soil will be sampled for TPH and BTEX. Soil disposal will be determined based on lab results.

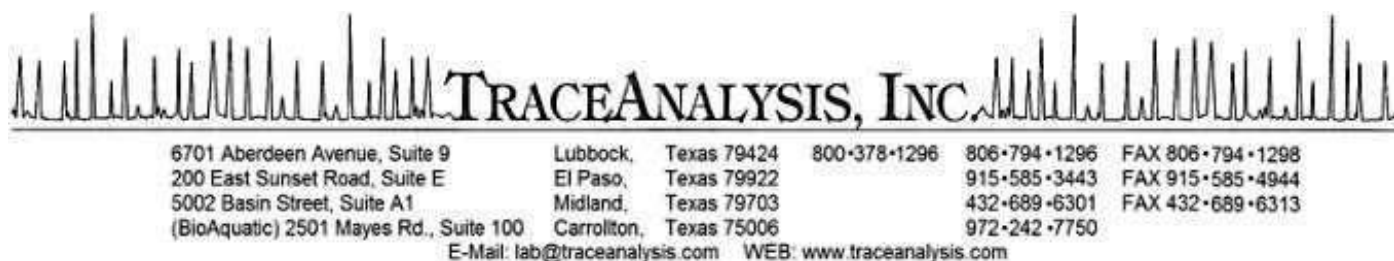
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: <u>Glen Thompson</u>		Approved by Environmental Specialist:	
Title: <u>Pipeline Engineer - Sr.</u>		Approval Date:	Expiration Date:
E-mail Address: <u>Glen_Thompson@KinderMorgan.com</u>		Conditions of Approval:	
Date: <u>01/31/2014</u> Phone: <u>(432) 333-5518</u>		Attached ☐	

* Attach Additional Sheets If Necessary

Appendix B

Laboratory Analytical Data



Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ernest Long
Kinder Morgan/El Paso Natural Gas-Hobbs
2316 W. Bender Blvd.
Hobbs, NM, 88240

Report Date: February 12, 2014

Work Order: 14021110



Project Location: Monument, Lea Co, NM
Project Name: Monument Drain Line
Project Number: 5205-1920-020914

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
354321	North Side	soil	2014-02-10	08:50	2014-02-11
354322	South Side	soil	2014-02-10	08:55	2014-02-11
354323	East Side 10:05am	soil	2014-02-10	10:05	2014-02-11
354324	West Side	soil	2014-02-10	09:10	2014-02-11
354325	East Spoil	soil	2014-02-10	08:46	2014-02-11
354326	West Spoil	soil	2014-02-10	08:40	2014-02-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, prominent 'M' and 'A'.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monument Drain Line were received by TraceAnalysis, Inc. on 2014-02-11 and assigned to work order 14021110. Samples for work order 14021110 were received intact at a temperature of 4.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	92329	2014-02-11 at 14:25	109173	2014-02-11 at 14:25
TPH DRO - NEW	S 8015 D	92337	2014-02-11 at 14:00	109188	2014-02-11 at 15:00
TPH GRO	S 8015 D	92329	2014-02-11 at 14:25	109174	2014-02-11 at 14:25

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14021110 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: February 12, 2014
5205-1920-020914

Work Order: 14021110
Monument Drain Line

Page Number: 5 of 22
Monument, Lea Co, NM

Analytical Report

Sample: 354321 - North Side

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 109173
Prep Batch: 92329

Analytical Method: S 8021B
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: S 5035
Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	Jb	1	<0.0200	mg/Kg	1	0.0200
Xylene	Jb	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	59.5 - 120

Sample: 354321 - North Side

Laboratory: Lubbock
Analysis: TPH DRO - NEW
QC Batch: 109188
Prep Batch: 92337

Analytical Method: S 8015 D
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: N/A
Analyzed By: CM
Prepared By: CM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			104	mg/Kg	1	100	104	70 - 130

Sample: 354321 - North Side

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 109174
Prep Batch: 92329

Analytical Method: S 8015 D
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: S 5035
Analyzed By: JS
Prepared By: JS

Report Date: February 12, 2014
5205-1920-020914

Work Order: 14021110
Monument Drain Line

Page Number: 6 of 22
Monument, Lea Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	73 - 122
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	74.6 - 120

Sample: 354322 - South Side

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 109173
Prep Batch: 92329

Analytical Method: S 8021B
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: S 5035
Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	Jb	1	<0.0200	mg/Kg	1	0.0200
Xylene	Jb	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.63	mg/Kg	1	2.00	82	59.5 - 120

Sample: 354322 - South Side

Laboratory: Lubbock
Analysis: TPH DRO - NEW
QC Batch: 109188
Prep Batch: 92337

Analytical Method: S 8015 D
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: N/A
Analyzed By: CM
Prepared By: CM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			105	mg/Kg	1	100	105	70 - 130

Report Date: February 12, 2014
5205-1920-020914

Work Order: 14021110
Monument Drain Line

Page Number: 7 of 22
Monument, Lea Co, NM

Sample: 354322 - South Side

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 109174
Prep Batch: 92329

Analytical Method: S 8015 D
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: S 5035
Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	73 - 122
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	74.6 - 120

Sample: 354323 - East Side 10:05am

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 109173
Prep Batch: 92329

Analytical Method: S 8021B
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: S 5035
Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Jb	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.63	mg/Kg	1	2.00	82	59.5 - 120

Sample: 354323 - East Side 10:05am

Laboratory: Lubbock
Analysis: TPH DRO - NEW
QC Batch: 109188
Prep Batch: 92337

Analytical Method: S 8015 D
Date Analyzed: 2014-02-11
Sample Preparation: 2014-02-11

Prep Method: N/A
Analyzed By: CM
Prepared By: CM

continued ...

Report Date: February 12, 2014
5205-1920-020914

Work Order: 14021110
Monument Drain Line

Page Number: 8 of 22
Monument, Lea Co, NM

sample 354323 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL		
Parameter	Flag	Cert	RL Result	Units	Dilution	RL		
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			106	mg/Kg	1	100	106	70 - 130

Sample: 354323 - East Side 10:05am

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	109174	Date Analyzed:	2014-02-11	Analyzed By:	JS
Prep Batch:	92329	Sample Preparation:	2014-02-11	Prepared By:	JS

Parameter	Flag	Cert	RL				RL	
			Result	Units	Dilution			
GRO	U	1	<4.00	mg/Kg	1	4.00		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	73 - 122
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	74.6 - 120

Sample: 354324 - West Side

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	109173	Date Analyzed:	2014-02-11	Analyzed By:	JS
Prep Batch:	92329	Sample Preparation:	2014-02-11	Prepared By:	JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Jb	1	<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	59.5 - 120

Sample: 354324 - West Side

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2014-02-11	Analyzed By:	CM
QC Batch:	109188	Sample Preparation:	2014-02-11	Prepared By:	CM
Prep Batch:	92337				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			102	mg/Kg	1	100	102	70 - 130

Sample: 354324 - West Side

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2014-02-11	Analyzed By:	JS
QC Batch:	109174	Sample Preparation:	2014-02-11	Prepared By:	JS
Prep Batch:	92329				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	73 - 122
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	74.6 - 120

Sample: 354325 - East Spoil

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2014-02-11	Analyzed By:	JS
QC Batch:	109173	Sample Preparation:	2014-02-11	Prepared By:	JS
Prep Batch:	92329				

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Jb	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	59.5 - 120

Sample: 354325 - East Spoil

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2014-02-11	Analyzed By:	CM
QC Batch:	109188	Sample Preparation:	2014-02-11	Prepared By:	CM
Prep Batch:	92337				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			100	mg/Kg	1	100	100	70 - 130

Sample: 354325 - East Spoil

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2014-02-11	Analyzed By:	JS
QC Batch:	109174	Sample Preparation:	2014-02-11	Prepared By:	JS
Prep Batch:	92329				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	73 - 122
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	74.6 - 120

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Sample: 354326 - West Spoil

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 109173

Prep Batch: 92329

Analytical Method: S 8021B

Date Analyzed: 2014-02-11

Sample Preparation: 2014-02-11

Prep Method: S 5035

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	Jb	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.57	mg/Kg	1	2.00	78	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	59.5 - 120

Sample: 354326 - West Spoil

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 109188

Prep Batch: 92337

Analytical Method: S 8015 D

Date Analyzed: 2014-02-11

Sample Preparation: 2014-02-11

Prep Method: N/A

Analyzed By: CM

Prepared By: CM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

Sample: 354326 - West Spoil

Laboratory: Lubbock

Analysis: TPH GRO

QC Batch: 109174

Prep Batch: 92329

Analytical Method: S 8015 D

Date Analyzed: 2014-02-11

Sample Preparation: 2014-02-11

Prep Method: S 5035

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.81	mg/Kg	1	2.00	90	73 - 122
4-Bromofluorobenzene (4-BFB)			1.82	mg/Kg	1	2.00	91	74.6 - 120

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Method Blanks

Method Blank (1) QC Batch: 109173

QC Batch: 109173
Prep Batch: 92329

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00487	mg/Kg	0.02
Toluene		1	<0.00358	mg/Kg	0.02
Ethylbenzene		1	0.00300	mg/Kg	0.02
Xylene		1	0.0136	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	1	2.00	84	66.2 - 120
4-Bromofluorobenzene (4-BFB)			1.43	mg/Kg	1	2.00	72	59.5 - 120

Method Blank (1) QC Batch: 109174

QC Batch: 109174
Prep Batch: 92329

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	0.219	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	73 - 122
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	74.6 - 120

Method Blank (1) QC Batch: 109188

QC Batch: 109188
Prep Batch: 92337

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: CM
Prepared By: CM

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Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	6.44	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			107	mg/Kg	1	100	107	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 109173
Prep Batch: 92329

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: JS
Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.74	mg/Kg	1	2.00	<0.00487	87	69.3 - 120
Toluene		1	1.79	mg/Kg	1	2.00	<0.00358	90	70.5 - 120
Ethylbenzene		1	1.86	mg/Kg	1	2.00	0.003	93	70.6 - 120
Xylene		1	5.58	mg/Kg	1	6.00	0.0136	93	70.7 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.65	mg/Kg	1	2.00	<0.00487	82	69.3 - 120	5	20
Toluene		1	1.75	mg/Kg	1	2.00	<0.00358	88	70.5 - 120	2	20
Ethylbenzene		1	1.85	mg/Kg	1	2.00	0.003	92	70.6 - 120	0	20
Xylene		1	5.53	mg/Kg	1	6.00	0.0136	92	70.7 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.70	1.56	mg/Kg	1	2.00	85	78	66.2 - 120
4-Bromofluorobenzene (4-BFB)	1.42	1.39	mg/Kg	1	2.00	71	70	59.5 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 109174
Prep Batch: 92329

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: JS
Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	14.9	mg/Kg	1	20.0	0.219	74	60.1 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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control spikes continued . . .

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	15.4	mg/Kg	1	20.0	0.219	77	60.1 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.74	1.80	mg/Kg	1	2.00	87	90	73 - 122
4-Bromofluorobenzene (4-BFB)	1.82	1.87	mg/Kg	1	2.00	91	94	74.6 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 109188
Prep Batch: 92337

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: CM
Prepared By: CM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	190	mg/Kg	1	250	6.44	76	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	195	mg/Kg	1	250	6.44	78	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	82.7	102	mg/Kg	1	100	83	102	70 - 130

Matrix Spike (MS-1) Spiked Sample: 354321

QC Batch: 109173
Prep Batch: 92329

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: JS
Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.07	mg/Kg	1	2.00	<0.00487	104	63.6 - 120

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matrix spikes continued . . .

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Toluene		1	2.10	mg/Kg	1	2.00	<0.00358	105	67.8 - 128
Ethylbenzene		1	2.17	mg/Kg	1	2.00	0.0035	108	69.5 - 136
Xylene		1	6.45	mg/Kg	1	6.00	0.0053	107	69.3 - 139

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.01	mg/Kg	1	2.00	<0.00487	100	63.6 - 120	3	20
Toluene		1	2.00	mg/Kg	1	2.00	<0.00358	100	67.8 - 128	5	20
Ethylbenzene		1	2.12	mg/Kg	1	2.00	0.0035	106	69.5 - 136	2	20
Xylene		1	6.32	mg/Kg	1	6.00	0.0053	105	69.3 - 139	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.27	2.15	mg/Kg	1	2	114	108	66.2 - 120
4-Bromofluorobenzene (4-BFB)	1.66	1.59	mg/Kg	1	2	83	80	59.5 - 120

Matrix Spike (MS-1) Spiked Sample: 354321

QC Batch: 109174
Prep Batch: 92329

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: JS
Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	12.0	mg/Kg	1	20.0	<0.217	60	40.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	12.9	mg/Kg	1	20.0	<0.217	64	40.3 - 120	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.87	1.87	mg/Kg	1	2	94	94	73 - 122
4-Bromofluorobenzene (4-BFB)	1.99	2.05	mg/Kg	1	2	100	102	74.6 - 120

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Matrix Spike (MS-1) Spiked Sample: 354326

QC Batch: 109188
Prep Batch: 92337

Date Analyzed: 2014-02-11
QC Preparation: 2014-02-11

Analyzed By: CM
Prepared By: CM

Param			F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	Qs	Qs		1	161	mg/Kg	1	250	5.97	62	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F		C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	Q _s	Q _s	1	166	mg/Kg	1	250	5.97	64	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	100	105	mg/Kg	1	100	100	105	70 - 130

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Calibration Standards

Standard (CCV-1)

QC Batch: 109173

Date Analyzed: 2014-02-11

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0900	90	80 - 120	2014-02-11
Toluene		1	mg/kg	0.100	0.0893	89	80 - 120	2014-02-11
Ethylbenzene		1	mg/kg	0.100	0.0904	90	80 - 120	2014-02-11
Xylene		1	mg/kg	0.300	0.270	90	80 - 120	2014-02-11

Standard (CCV-2)

QC Batch: 109173

Date Analyzed: 2014-02-11

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0884	88	80 - 120	2014-02-11
Toluene		1	mg/kg	0.100	0.0885	88	80 - 120	2014-02-11
Ethylbenzene		1	mg/kg	0.100	0.0894	89	80 - 120	2014-02-11
Xylene		1	mg/kg	0.300	0.267	89	80 - 120	2014-02-11

Standard (CCV-1)

QC Batch: 109174

Date Analyzed: 2014-02-11

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.967	97	80 - 120	2014-02-11

Standard (CCV-2)

QC Batch: 109174

Date Analyzed: 2014-02-11

Analyzed By: JS

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.906	91	80 - 120	2014-02-11

Standard (CCV-1)

QC Batch: 109188

Date Analyzed: 2014-02-11

Analyzed By: CM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	216	86	80 - 120	2014-02-11

Standard (CCV-2)

QC Batch: 109188

Date Analyzed: 2014-02-11

Analyzed By: CM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	207	83	80 - 120	2014-02-11

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

email: lab@traceanalysis.com

Company Name: **EPNG/Kindermorgan**

Phone #: **1-432-413-7844**

Address:

(Street, City, Zip)

Fax #:

2316 W. Bender Blvd, Hobbs, NM 88240

Contact Person: **Glen Thompson**

E-mail:

Glen Thompson See Note

Invoice to:

(If different from above)

Project #:

5205-1920-020914

Project Location (including state):

MONUMENT, Lea Co., NM

Project Name:

Monument Drive Line

Sampler Signature:

Ernest Long

MATRIX

PRESERVATIVE

METHOD

WATER

AIR

SLUDGE

SOIL

ICE

NaOH

H₂SO₄

HNO₃

HCl

NONE

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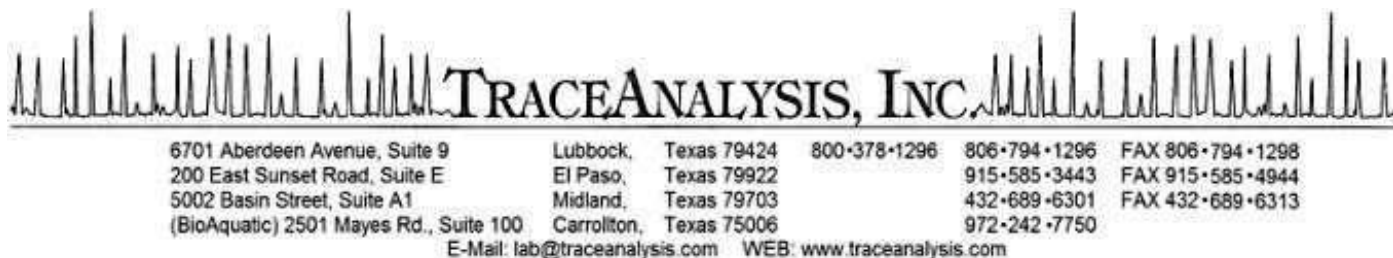
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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

David White
 Kinder Morgan-Houston
 1001 Louisiana St
 Suite 1460A
 Houston, TX, 77002

Report Date: April 11, 2014

Work Order: 14040905



Project Location: Monument, NM
 Project Name: Monument Drain Line
 Project Number: Monument Drain Line

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359927	Excavation-25'-4-8-14	soil	2014-04-08	13:30	2014-04-09
359928	Water Well	water	2014-04-08	14:00	2014-04-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
 Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monument Drain Line were received by TraceAnalysis, Inc. on 2014-04-09 and assigned to work order 14040905. Samples for work order 14040905 were received intact at a temperature of 1.3 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	93883	2014-04-10 at 15:30	111047	2014-04-10 at 09:12
Chloride (IC)	E 300.0	93909	2014-04-10 at 12:06	111078	2014-04-10 at 12:06
Chloride (Titration)	SM 4500-Cl B	93848	2014-04-09 at 08:45	111014	2014-04-09 at 12:20
TX1005 Extended - NEW	TX1005	93866	2014-04-09 at 11:45	110989	2014-04-09 at 15:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14040905 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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Analytical Report

Sample: 359927 - Excavation-25'-4-8-14

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2014-04-10	Analyzed By:	AK
QC Batch:	111047	Sample Preparation:	2014-04-09	Prepared By:	AK
Prep Batch:	93883				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.0200	mg/Kg	1	0.0200
Toluene	U	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	2	<0.0200	mg/Kg	1	0.0200
Xylene	U	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.08	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 359927 - Excavation-25'-4-8-14

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-04-09	Analyzed By:	AK
QC Batch:	111014	Sample Preparation:	2014-04-09	Prepared By:	AK
Prep Batch:	93848				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			186	mg/Kg	5	4.00

Sample: 359927 - Excavation-25'-4-8-14

Laboratory:	Midland	Analytical Method:	TX1005	Prep Method:	N/A
Analysis:	TX1005 Extended - NEW	Date Analyzed:	2014-04-09	Analyzed By:	RG
QC Batch:	110989	Sample Preparation:	2014-04-09	Prepared By:	RG
Prep Batch:	93866				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
C6-C12	Qs,U	2	<50.0	mg/Kg	1	50.0

continued ...

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sample 359927 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
>C12-C35	Jb, Qs	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	Qsr	Qsr	69.5	mg/Kg	1	100	70	70 - 130
n-Octane			103	mg/Kg	1	100	103	70 - 130
n-Tricosane			81.0	mg/Kg	1	100	81	70 - 130

Sample: 359928 - Water Well

Laboratory: El Paso

Analysis: Chloride (IC)

QC Batch: 111078

Prep Batch: 93909

Analytical Method: E 300.0

Date Analyzed: 2014-04-10

Sample Preparation: 2014-04-10

Prep Method: N/A

Analyzed By: JR

Prepared By: JR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1	53.9	mg/L	5	2.50

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Method Blanks

Method Blank (1) QC Batch: 110989

QC Batch: 110989 Date Analyzed: 2014-04-09 Analyzed By: RG
Prep Batch: 93866 QC Preparation: 2014-04-09 Prepared By: RG

Parameter	Flag	Cert	MDL Result	Units	RL
C6-C12		2	<7.11	mg/Kg	50
>C12-C35		2	24.4	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane			76.5	mg/Kg	1	100	76	70 - 130
n-Octane			109	mg/Kg	1	100	109	70 - 130
n-Tricosane			90.0	mg/Kg	1	100	90	70 - 130

Method Blank (1) QC Batch: 111014

QC Batch: 111014 Date Analyzed: 2014-04-09 Analyzed By: AK
Prep Batch: 93848 QC Preparation: 2014-04-09 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 111047

QC Batch: 111047 Date Analyzed: 2014-04-10 Analyzed By: AK
Prep Batch: 93883 QC Preparation: 2014-04-10 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.00354	mg/Kg	0.02
Toluene		2	<0.00966	mg/Kg	0.02
Ethylbenzene		2	<0.00790	mg/Kg	0.02
Xylene		2	<0.00667	mg/Kg	0.02

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.07	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130

Method Blank (1) QC Batch: 111078

QC Batch: 111078
Prep Batch: 93909

Date Analyzed: 2014-04-10
QC Preparation: 2014-04-10

Analyzed By: JR
Prepared By: JR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1	1.43	mg/L	2.5

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 110989
Prep Batch: 93866

Date Analyzed: 2014-04-09
QC Preparation: 2014-04-09

Analyzed By: RG
Prepared By: RG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
C6-C12		2	229	mg/Kg	1	250	<7.11	92	75 - 125
>C12-C35		2	264	mg/Kg	1	250	24.4	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
C6-C12		2	228	mg/Kg	1	250	<7.11	91	75 - 125	0	20
>C12-C35		2	260	mg/Kg	1	250	24.4	94	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	72.6	73.3	mg/Kg	1	100	73	73	70 - 130
n-Octane	112	111	mg/Kg	1	100	112	111	70 - 130
n-Tricosane	84.4	85.8	mg/Kg	1	100	84	86	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111014
Prep Batch: 93848

Date Analyzed: 2014-04-09
QC Preparation: 2014-04-09

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2520	mg/Kg	5	2500	<19.2	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2600	mg/Kg	5	2500	<19.2	104	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Laboratory Control Spike (LCS-1)

QC Batch: 111047
Prep Batch: 93883

Date Analyzed: 2014-04-10
QC Preparation: 2014-04-10

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	1.87	mg/Kg	1	2.00	<0.00354	94	70 - 130
Toluene		2	1.97	mg/Kg	1	2.00	<0.00966	98	70 - 130
Ethylbenzene		2	2.06	mg/Kg	1	2.00	<0.00790	103	70 - 130
Xylene		2	6.23	mg/Kg	1	6.00	<0.00667	104	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	1.89	mg/Kg	1	2.00	<0.00354	94	70 - 130	1	20
Toluene		2	1.99	mg/Kg	1	2.00	<0.00966	100	70 - 130	1	20
Ethylbenzene		2	2.08	mg/Kg	1	2.00	<0.00790	104	70 - 130	1	20
Xylene		2	6.25	mg/Kg	1	6.00	<0.00667	104	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.03	2.04	mg/Kg	1	2.00	102	102	70 - 130
4-Bromofluorobenzene (4-BFB)	2.19	2.18	mg/Kg	1	2.00	110	109	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111078
Prep Batch: 93909

Date Analyzed: 2014-04-10
QC Preparation: 2014-04-10

Analyzed By: JR
Prepared By: JR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	23.1	mg/L	1	25.0	<0.678	92	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	23.0	mg/L	1	25.0	<0.678	92	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spike (MS-1) Spiked Sample: 359841

QC Batch: 110989
Prep Batch: 93866

Date Analyzed: 2014-04-09
QC Preparation: 2014-04-09

Analyzed By: RG
Prepared By: RG

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
C6-C12	Q _s	Q _s	2	2450	mg/Kg	5	250	2830	-152	75 - 125
>C12-C35	Q _s	Q _s	2	7080	mg/Kg	5	250	9560	-992	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
			Result	Units								
C6-C12	Q _s	Q _s	2	2480	mg/Kg	5	250	2830	-140	75 - 125	1	20
>C12-C35	Q _s	Q _s	2	7000	mg/Kg	5	250	9560	-1024	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MS	MSD			Spike	MS	MSD	Rec.
Surrogate			Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	Q _{sr}	Q _{sr}	178	168	mg/Kg	5	100	178	168	70 - 130
n-Octane			111	114	mg/Kg	5	100	111	114	70 - 130
n-Tricosane	Q _{sr}	Q _{sr}	152	150	mg/Kg	5	100	152	150	70 - 130

Matrix Spike (MS-1) Spiked Sample: 359927

QC Batch: 111014
Prep Batch: 93848

Date Analyzed: 2014-04-09
QC Preparation: 2014-04-09

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3050	mg/Kg	5	2500	186	114	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2930	mg/Kg	5	2500	186	110	78.9 - 121	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 359927

QC Batch: 111047
Prep Batch: 93883

Date Analyzed: 2014-04-10
QC Preparation: 2014-04-10

Analyzed By: AK
Prepared By: AK

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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	1.81	mg/Kg	1	2.00	<0.00354	90	70 - 130
Toluene		2	1.90	mg/Kg	1	2.00	<0.00966	95	70 - 130
Ethylbenzene		2	1.98	mg/Kg	1	2.00	<0.00790	99	70 - 130
Xylene		2	5.95	mg/Kg	1	6.00	<0.00667	99	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	1.84	mg/Kg	1	2.00	<0.00354	92	70 - 130	2	20
Toluene		2	1.93	mg/Kg	1	2.00	<0.00966	96	70 - 130	2	20
Ethylbenzene		2	1.99	mg/Kg	1	2.00	<0.00790	100	70 - 130	0	20
Xylene		2	6.06	mg/Kg	1	6.00	<0.00667	101	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.04	2.02	mg/Kg	1	2	102	101	70 - 130
4-Bromofluorobenzene (4-BFB)	2.19	2.19	mg/Kg	1	2	110	110	70 - 130

Matrix Spike (MS-1) Spiked Sample: 359960

QC Batch: 111078
Prep Batch: 93909

Date Analyzed: 2014-04-10
QC Preparation: 2014-04-10

Analyzed By: JR
Prepared By: JR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1	1410	mg/L	55.6	1390	76.2	96	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		1	1380	mg/L	55.6	1390	76.2	94	80 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 110989

Date Analyzed: 2014-04-09

Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		2	mg/Kg	250	225	90	75 - 125	2014-04-09
>C12-C35		2	mg/Kg	250	257	103	75 - 125	2014-04-09

Standard (CCV-2)

QC Batch: 110989

Date Analyzed: 2014-04-09

Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		2	mg/Kg	250	219	88	75 - 125	2014-04-09
>C12-C35		2	mg/Kg	250	262	105	75 - 125	2014-04-09

Standard (ICV-1)

QC Batch: 111014

Date Analyzed: 2014-04-09

Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2014-04-09

Standard (CCV-1)

QC Batch: 111014

Date Analyzed: 2014-04-09

Analyzed By: AK

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.8	99	85 - 115	2014-04-09

Standard (CCV-1)

QC Batch: 111047

Date Analyzed: 2014-04-10

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/kg	0.100	0.105	105	80 - 120	2014-04-10
Toluene		2	mg/kg	0.100	0.104	104	80 - 120	2014-04-10
Ethylbenzene		2	mg/kg	0.100	0.0983	98	80 - 120	2014-04-10
Xylene		2	mg/kg	0.300	0.299	100	80 - 120	2014-04-10

Standard (CCV-2)

QC Batch: 111047

Date Analyzed: 2014-04-10

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/kg	0.100	0.0983	98	80 - 120	2014-04-10
Toluene		2	mg/kg	0.100	0.0995	100	80 - 120	2014-04-10
Ethylbenzene		2	mg/kg	0.100	0.0953	95	80 - 120	2014-04-10
Xylene		2	mg/kg	0.300	0.287	96	80 - 120	2014-04-10

Standard (CCV-1)

QC Batch: 111078

Date Analyzed: 2014-04-10

Analyzed By: JR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2014-04-10

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Standard (CCV-2)

QC Batch: 111078				Date Analyzed: 2014-04-10			Analyzed By: JR	
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1	mg/L	25.0	23.8	95	90 - 110	2014-04-10

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704221-12-3	El Paso
2	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

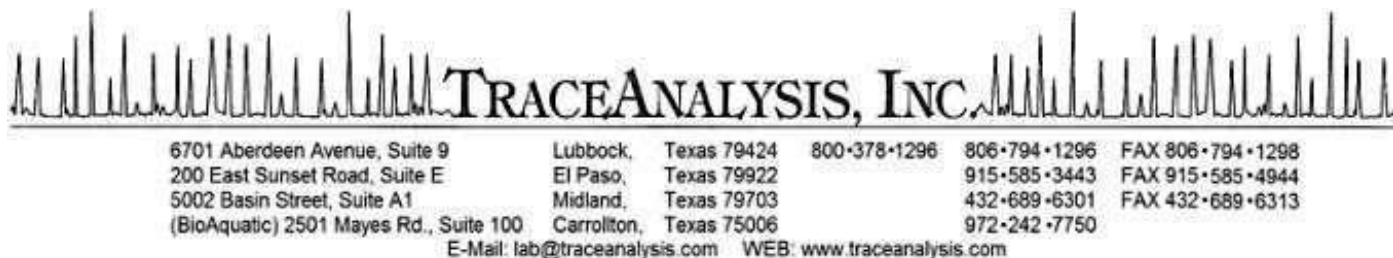
Report Date: April 11, 2014
Monument Drain Line

Work Order: 14040905
Monument Drain Line

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Monument, NM

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.



Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

David White
Kinder Morgan-Houston
1001 Louisiana St
Suite 1460A
Houston, TX, 77002

Report Date: May 1, 2014

Work Order: 14042916



Project Location: Monument, NM
Project Name: Monument Drain Line
Project Number: Monument Drain Line

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
361541	North Side 20'	soil	2014-04-29	08:15	2014-04-29
361542	South Side 20'	soil	2014-04-29	08:30	2014-04-29
361543	East Side 20'	soil	2014-04-29	08:50	2014-04-29
361544	West Side 20'	soil	2014-04-29	09:10	2014-04-29
361545	West Pile	soil	2014-04-29	09:25	2014-04-29
361546	Middle Pile	soil	2014-04-29	09:45	2014-04-29
361547	East Pile	soil	2014-04-29	10:05	2014-04-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 32 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, stylized 'M' and 'A'.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Monument Drain Line were received by TraceAnalysis, Inc. on 2014-04-29 and assigned to work order 14042916. Samples for work order 14042916 were received intact at a temperature of 6.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Ag, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
As, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
Ba, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
BTEX	S 8021B	94322	2014-04-30 at 08:33	111598	2014-05-01 at 07:47
Cd, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
Chloride (Titration)	SM 4500-Cl B	94365	2014-04-30 at 16:00	111605	2014-05-01 at 08:28
Cr, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
Hg, Total	S 7471 B	94373	2014-05-01 at 08:15	111620	2014-05-01 at 13:45
Pb, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
Se, Total	S 6010C	94341	2014-04-30 at 14:28	111622	2014-05-01 at 13:32
TPH DRO - NEW	S 8015 D	94321	2014-04-29 at 14:30	111562	2014-04-30 at 08:28
TPH GRO	S 8015 D	94322	2014-04-30 at 08:33	111599	2014-05-01 at 07:53

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14042916 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: May 1, 2014
Monument Drain Line

Work Order: 14042916
Monument Drain Line

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Monument, NM

Analytical Report

Sample: 361541 - North Side 20'

Laboratory: Midland
Analysis: BTEX
QC Batch: 111598
Prep Batch: 94322

Analytical Method: S 8021B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.0200	mg/Kg	1	0.0200
Toluene	U	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	2	<0.0200	mg/Kg	1	0.0200
Xylene	U	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	70 - 130

Sample: 361541 - North Side 20'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 111605
Prep Batch: 94365

Analytical Method: SM 4500-Cl B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			297	mg/Kg	5	4.00

Sample: 361541 - North Side 20'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 111562
Prep Batch: 94321

Analytical Method: S 8015 D
Date Analyzed: 2014-04-30
Sample Preparation: 2014-04-29

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb	2	<50.0	mg/Kg	1	50.0

Report Date: May 1, 2014
Monument Drain Line

Work Order: 14042916
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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			82.5	mg/Kg	1	100	82	70 - 130

Sample: 361541 - North Side 20'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111599
Prep Batch: 94322

Analytical Method: S 8015 D
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.13	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	70 - 130

Sample: 361542 - South Side 20'

Laboratory: Midland
Analysis: BTEX
QC Batch: 111598
Prep Batch: 94322

Analytical Method: S 8021B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.0200	mg/Kg	1	0.0200
Toluene	U	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	2	<0.0200	mg/Kg	1	0.0200
Xylene	U	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.62	mg/Kg	1	2.00	81	70 - 130

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Sample: 361542 - South Side 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-05-01	Analyzed By:	RG
QC Batch:	111605	Sample Preparation:	2014-04-30	Prepared By:	RG
Prep Batch:	94365				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			198	mg/Kg	5	4.00

Sample: 361542 - South Side 20'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2014-04-30	Analyzed By:	RG
QC Batch:	111562	Sample Preparation:	2014-04-29	Prepared By:	RG
Prep Batch:	94321				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			81.3	mg/Kg	1	100	81	70 - 130

Sample: 361542 - South Side 20'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2014-05-01	Analyzed By:	AK
QC Batch:	111599	Sample Preparation:	2014-04-30	Prepared By:	AK
Prep Batch:	94322				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	70 - 130

Report Date: May 1, 2014
Monument Drain Line

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Monument Drain Line

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Sample: 361543 - East Side 20'

Laboratory: Midland

Analysis: BTEX

QC Batch: 111598

Prep Batch: 94322

Analytical Method: S 8021B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-04-30

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.0200	mg/Kg	1	0.0200
Toluene	u	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	2	<0.0200	mg/Kg	1	0.0200
Xylene	u	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.57	mg/Kg	1	2.00	78	70 - 130

Sample: 361543 - East Side 20'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 111605

Prep Batch: 94365

Analytical Method: SM 4500-Cl B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-04-30

Prep Method: N/A

Analyzed By: RG

Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			149	mg/Kg	5	4.00

Sample: 361543 - East Side 20'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 111562

Prep Batch: 94321

Analytical Method: S 8015 D

Date Analyzed: 2014-04-30

Sample Preparation: 2014-04-29

Prep Method: N/A

Analyzed By: RG

Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	jb	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			83.5	mg/Kg	1	100	84	70 - 130

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Sample: 361543 - East Side 20'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111599
Prep Batch: 94322

Analytical Method: S 8015 D
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

Sample: 361544 - West Side 20'

Laboratory: Midland
Analysis: BTEX
QC Batch: 111598
Prep Batch: 94322

Analytical Method: S 8021B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.0200	mg/Kg	1	0.0200
Toluene	U	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	2	<0.0200	mg/Kg	1	0.0200
Xylene	U	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.78	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			1.61	mg/Kg	1	2.00	80	70 - 130

Sample: 361544 - West Side 20'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 111605
Prep Batch: 94365

Analytical Method: SM 4500-Cl B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

continued ...

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sample 361544 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			50.0	mg/Kg	5	4.00

Sample: 361544 - West Side 20'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 111562
Prep Batch: 94321

Analytical Method: S 8015 D
Date Analyzed: 2014-04-30
Sample Preparation: 2014-04-29

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			85.3	mg/Kg	1	100	85	70 - 130

Sample: 361544 - West Side 20'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111599
Prep Batch: 94322

Analytical Method: S 8015 D
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	70 - 130

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Sample: 361545 - West Pile

Laboratory: Midland
Analysis: BTEX
QC Batch: 111598
Prep Batch: 94322

Analytical Method: S 8021B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.0200	mg/Kg	1	0.0200
Toluene	u	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	2	<0.0200	mg/Kg	1	0.0200
Xylene	u	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Sample: 361545 - West Pile

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 111605
Prep Batch: 94365

Analytical Method: SM 4500-Cl B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			50.0	mg/Kg	5	4.00

Sample: 361545 - West Pile

Laboratory: Lubbock
Analysis: Total 8 Metals
QC Batch: 111620
Prep Batch: 94373
Laboratory: Lubbock
Analysis: Total 8 Metals
QC Batch: 111622
Prep Batch: 94341

Analytical Method: S 7471 B
Date Analyzed: 2014-05-01
Sample Preparation: 2014-05-01

Prep Method: N/A
Analyzed By: TP
Prepared By: TP

Analytical Method: S 6010C
Date Analyzed: 2014-05-01
Sample Preparation: 2014-05-01

Prep Method: S 3050B
Analyzed By: LM
Prepared By: PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Silver	u	1	<0.500	mg/Kg	1	0.500
Total Arsenic	u	1	<2.00	mg/Kg	1	2.00

continued ...

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Monument Drain Line

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sample 361545 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Barium		1	86.1	mg/Kg	1	1.00
Total Cadmium	U	1	<0.500	mg/Kg	1	0.500
Total Chromium		1	7.83	mg/Kg	1	0.500
Total Mercury		1	<0.0250	mg/Kg	1	0.0250
Total Lead		1	1.71	mg/Kg	1	1.00
Total Selenium	U	1	<2.00	mg/Kg	1	2.00

Sample: 361545 - West Pile

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 111562
Prep Batch: 94321

Analytical Method: S 8015 D
Date Analyzed: 2014-04-30
Sample Preparation: 2014-04-29

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	2	58.9	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			88.6	mg/Kg	1	100	89	70 - 130

Sample: 361545 - West Pile

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111599
Prep Batch: 94322

Analytical Method: S 8015 D
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.11	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

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Monument Drain Line

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Sample: 361546 - Middle Pile

Laboratory: Midland

Analysis: BTEX

QC Batch: 111598

Prep Batch: 94322

Analytical Method: S 8021B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-04-30

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.0200	mg/Kg	1	0.0200
Toluene	u	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	2	<0.0200	mg/Kg	1	0.0200
Xylene	u	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Sample: 361546 - Middle Pile

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 111605

Prep Batch: 94365

Analytical Method: SM 4500-Cl B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-04-30

Prep Method: N/A

Analyzed By: RG

Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			50.0	mg/Kg	5	4.00

Sample: 361546 - Middle Pile

Laboratory: Lubbock

Analysis: Total 8 Metals

QC Batch: 111620

Prep Batch: 94373

Laboratory: Lubbock

Analysis: Total 8 Metals

QC Batch: 111622

Prep Batch: 94341

Analytical Method: S 7471 B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-05-01

Prep Method: N/A

Analyzed By: TP

Prepared By: TP

Analytical Method: S 6010C

Date Analyzed: 2014-05-01

Sample Preparation: 2014-05-01

Prep Method: S 3050B

Analyzed By: LM

Prepared By: PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Silver	u	1	<0.500	mg/Kg	1	0.500
Total Arsenic	u	1	<2.00	mg/Kg	1	2.00

continued ...

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sample 361546 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Barium		1	73.5	mg/Kg	1	1.00
Total Cadmium	U	1	<0.500	mg/Kg	1	0.500
Total Chromium		1	6.99	mg/Kg	1	0.500
Total Mercury		1	<0.0250	mg/Kg	1	0.0250
Total Lead		1	2.17	mg/Kg	1	1.00
Total Selenium	U	1	<2.00	mg/Kg	1	2.00

Sample: 361546 - Middle Pile

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 111562
Prep Batch: 94321

Analytical Method: S 8015 D
Date Analyzed: 2014-04-30
Sample Preparation: 2014-04-29

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			83.2	mg/Kg	1	100	83	70 - 130

Sample: 361546 - Middle Pile

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111599
Prep Batch: 94322

Analytical Method: S 8015 D
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.10	mg/Kg	1	2.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

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Sample: 361547 - East Pile

Laboratory: Midland

Analysis: BTEX

QC Batch: 111598

Prep Batch: 94322

Analytical Method: S 8021B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-04-30

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.0200	mg/Kg	1	0.0200
Toluene	u	2	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	2	<0.0200	mg/Kg	1	0.0200
Xylene	u	2	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Sample: 361547 - East Pile

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 111605

Prep Batch: 94365

Analytical Method: SM 4500-Cl B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-04-30

Prep Method: N/A

Analyzed By: RG

Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			149	mg/Kg	5	4.00

Sample: 361547 - East Pile

Laboratory: Lubbock

Analysis: Total 8 Metals

QC Batch: 111620

Prep Batch: 94373

Laboratory: Lubbock

Analysis: Total 8 Metals

QC Batch: 111622

Prep Batch: 94341

Analytical Method: S 7471 B

Date Analyzed: 2014-05-01

Sample Preparation: 2014-05-01

Prep Method: N/A

Analyzed By: TP

Prepared By: TP

Analytical Method: S 6010C

Date Analyzed: 2014-05-01

Sample Preparation: 2014-05-01

Prep Method: S 3050B

Analyzed By: LM

Prepared By: PM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Silver	u	1	<0.500	mg/Kg	1	0.500
Total Arsenic	u	1	<2.00	mg/Kg	1	2.00

continued ...

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sample 361547 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total Barium		1	278	mg/Kg	10	1.00
Total Cadmium	U	1	<0.500	mg/Kg	1	0.500
Total Chromium		1	4.76	mg/Kg	1	0.500
Total Mercury		1	<0.0250	mg/Kg	1	0.0250
Total Lead		1	<1.00	mg/Kg	1	1.00
Total Selenium	U	1	<2.00	mg/Kg	1	2.00

Sample: 361547 - East Pile

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 111562
Prep Batch: 94321

Analytical Method: S 8015 D
Date Analyzed: 2014-04-30
Sample Preparation: 2014-04-29

Prep Method: N/A
Analyzed By: RG
Prepared By: RG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb	2	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			91.8	mg/Kg	1	100	92	70 - 130

Sample: 361547 - East Pile

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111599
Prep Batch: 94322

Analytical Method: S 8015 D
Date Analyzed: 2014-05-01
Sample Preparation: 2014-04-30

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	2	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.10	mg/Kg	1	2.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 111562

QC Batch: 111562 Date Analyzed: 2014-04-30 Analyzed By: RG
Prep Batch: 94321 QC Preparation: 2014-04-29 Prepared By: RG

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		2	29.0	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			98.0	mg/Kg	1	100	98	70 - 130

Method Blank (1) QC Batch: 111598

QC Batch: 111598 Date Analyzed: 2014-05-01 Analyzed By: AK
Prep Batch: 94322 QC Preparation: 2014-04-30 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.00533	mg/Kg	0.02
Toluene		2	<0.00645	mg/Kg	0.02
Ethylbenzene		2	<0.0116	mg/Kg	0.02
Xylene		2	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Method Blank (1) QC Batch: 111599

QC Batch: 111599 Date Analyzed: 2014-05-01 Analyzed By: AK
Prep Batch: 94322 QC Preparation: 2014-04-30 Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
GRO		2	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.20	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Method Blank (1) QC Batch: 111605

QC Batch: 111605 Date Analyzed: 2014-05-01 Analyzed By: RG
Prep Batch: 94365 QC Preparation: 2014-04-30 Prepared By: RG

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 111620

QC Batch: 111620 Date Analyzed: 2014-05-01 Analyzed By: TP
Prep Batch: 94373 QC Preparation: 2014-05-01 Prepared By: TP

Parameter	Flag	Cert	MDL Result	Units	RL
Total Mercury		1	<0.00177	mg/Kg	0.025

Method Blank (1) QC Batch: 111622

QC Batch: 111622 Date Analyzed: 2014-05-01 Analyzed By: LM
Prep Batch: 94341 QC Preparation: 2014-04-30 Prepared By: PM

Parameter	Flag	Cert	MDL Result	Units	RL
Total Silver		1	<0.0344	mg/Kg	0.5
Total Arsenic		1	<0.256	mg/Kg	2
Total Barium		1	<0.314	mg/Kg	1
Total Cadmium		1	<0.0286	mg/Kg	0.5

continued ...

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
Total Chromium		1	<0.127	mg/Kg	0.5
Total Lead		1	<0.263	mg/Kg	1
Total Selenium		1	<0.422	mg/Kg	2

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111562
Prep Batch: 94321

Date Analyzed: 2014-04-30
QC Preparation: 2014-04-29

Analyzed By: RG
Prepared By: RG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		2	229	mg/Kg	1	250	29	80	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		2	220	mg/Kg	1	250	29	76	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	97.1	86.0	mg/Kg	1	100	97	86	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111598
Prep Batch: 94322

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	1.61	mg/Kg	1	2.00	<0.00533	80	70 - 130
Toluene		2	1.63	mg/Kg	1	2.00	<0.00645	82	70 - 130
Ethylbenzene		2	1.74	mg/Kg	1	2.00	<0.0116	87	70 - 130
Xylene		2	5.21	mg/Kg	1	6.00	<0.00874	87	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	1.65	mg/Kg	1	2.00	<0.00533	82	70 - 130	2	20
Toluene		2	1.67	mg/Kg	1	2.00	<0.00645	84	70 - 130	2	20
Ethylbenzene		2	1.77	mg/Kg	1	2.00	<0.0116	88	70 - 130	2	20
Xylene		2	5.35	mg/Kg	1	6.00	<0.00874	89	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	1.92	mg/Kg	1	2.00	96	96	70 - 130
4-Bromofluorobenzene (4-BFB)	1.64	1.66	mg/Kg	1	2.00	82	83	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111599
Prep Batch: 94322

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		2	17.4	mg/Kg	1	20.0	<2.32	87	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		2	17.7	mg/Kg	1	20.0	<2.32	88	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.16	2.11	mg/Kg	1	2.00	108	106	70 - 130
4-Bromofluorobenzene (4-BFB)	2.03	1.98	mg/Kg	1	2.00	102	99	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111605
Prep Batch: 94365

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: RG
Prepared By: RG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2480	mg/Kg	5	2500	<19.2	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2430	mg/Kg	5	2500	<19.2	97	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Laboratory Control Spike (LCS-1)

QC Batch: 111620
Prep Batch: 94373

Date Analyzed: 2014-05-01
QC Preparation: 2014-05-01

Analyzed By: TP
Prepared By: TP

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury		1	0.255	mg/Kg	1	0.250	<0.00177	102	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury		1	0.252	mg/Kg	1	0.250	<0.00177	101	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 111622
Prep Batch: 94341

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: LM
Prepared By: PM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver		1	13.6	mg/Kg	1	12.5	<0.0344	109	85 - 115
Total Arsenic		1	51.4	mg/Kg	1	50.0	<0.256	103	85 - 115
Total Barium		1	107	mg/Kg	1	100	<0.314	107	85 - 115
Total Cadmium		1	26.3	mg/Kg	1	25.0	<0.0286	105	85 - 115
Total Chromium		1	10.6	mg/Kg	1	10.0	<0.127	106	85 - 115
Total Lead		1	55.0	mg/Kg	1	50.0	<0.263	110	85 - 115
Total Selenium		1	53.0	mg/Kg	1	50.0	<0.422	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver		1	13.8	mg/Kg	1	12.5	<0.0344	110	85 - 115	2	20
Total Arsenic		1	52.7	mg/Kg	1	50.0	<0.256	105	85 - 115	3	20
Total Barium		1	108	mg/Kg	1	100	<0.314	108	85 - 115	1	20
Total Cadmium		1	26.7	mg/Kg	1	25.0	<0.0286	107	85 - 115	1	20
Total Chromium		1	10.8	mg/Kg	1	10.0	<0.127	108	85 - 115	2	20
Total Lead		1	56.0	mg/Kg	1	50.0	<0.263	112	85 - 115	2	20
Total Selenium		1	54.0	mg/Kg	1	50.0	<0.422	108	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 361541

QC Batch: 111562
Prep Batch: 94321

Date Analyzed: 2014-04-30
QC Preparation: 2014-04-29

Analyzed By: RG
Prepared By: RG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		2	209	mg/Kg	1	250	15.8	77	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		2	219	mg/Kg	1	250	15.8	81	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	71.8	78.0	mg/Kg	1	100	72	78	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361541

QC Batch: 111598
Prep Batch: 94322

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	1.51	mg/Kg	1	2.00	<0.00533	76	70 - 130
Toluene		2	1.57	mg/Kg	1	2.00	<0.00645	78	70 - 130
Ethylbenzene		2	1.64	mg/Kg	1	2.00	<0.0116	82	70 - 130
Xylene		2	4.98	mg/Kg	1	6.00	<0.00874	83	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	1.46	mg/Kg	1	2.00	<0.00533	73	70 - 130	3	20
Toluene		2	1.51	mg/Kg	1	2.00	<0.00645	76	70 - 130	4	20
Ethylbenzene		2	1.59	mg/Kg	1	2.00	<0.0116	80	70 - 130	3	20
Xylene		2	4.83	mg/Kg	1	6.00	<0.00874	80	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.79	1.78	mg/Kg	1	2	90	89	70 - 130
4-Bromofluorobenzene (4-BFB)	1.65	1.51	mg/Kg	1	2	82	76	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361541

QC Batch: 111599
Prep Batch: 94322

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		2	16.0	mg/Kg	1	20.0	<2.32	80	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		2	16.5	mg/Kg	1	20.0	<2.32	82	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	1.85	mg/Kg	1	2	97	92	70 - 130
4-Bromofluorobenzene (4-BFB)	1.83	1.79	mg/Kg	1	2	92	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361547

QC Batch: 111605
Prep Batch: 94365

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: RG
Prepared By: RG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2480	mg/Kg	5	2500	149	93	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2480	mg/Kg	5	2500	149	93	78.9 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spike (MS-1) Spiked Sample: 361432

QC Batch: 111620
Prep Batch: 94373

Date Analyzed: 2014-05-01
QC Preparation: 2014-05-01

Analyzed By: TP
Prepared By: TP

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury		1	0.256	mg/Kg	1	0.250	0.00858	99	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury		1	0.259	mg/Kg	1	0.250	0.00858	100	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 361430

QC Batch: 111622
Prep Batch: 94341

Date Analyzed: 2014-05-01
QC Preparation: 2014-04-30

Analyzed By: LM
Prepared By: PM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver		1	13.1	mg/Kg	1	12.5	<0.0344	105	75 - 125
Total Arsenic		1	54.3	mg/Kg	1	50.0	<0.256	109	75 - 125
Total Barium		1	188	mg/Kg	1	100	86.32	102	75 - 125
Total Cadmium		1	24.4	mg/Kg	1	25.0	<0.0286	98	75 - 125
Total Chromium		1	19.4	mg/Kg	1	10.0	6.902	125	75 - 125
Total Lead		1	55.3	mg/Kg	1	50.0	6.298	98	75 - 125
Total Selenium		1	41.0	mg/Kg	1	50.0	<0.422	82	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver		1	13.1	mg/Kg	1	12.5	<0.0344	105	75 - 125	0	20
Total Arsenic		1	50.4	mg/Kg	1	50.0	<0.256	101	75 - 125	7	20
Total Barium		1	194	mg/Kg	1	100	86.32	108	75 - 125	3	20
Total Cadmium		1	25.0	mg/Kg	1	25.0	<0.0286	100	75 - 125	2	20
Total Chromium		1	19.3	mg/Kg	1	10.0	6.902	124	75 - 125	0	20
Total Lead		1	55.7	mg/Kg	1	50.0	6.298	99	75 - 125	1	20
Total Selenium		1	42.8	mg/Kg	1	50.0	<0.422	86	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 111562

Date Analyzed: 2014-04-30

Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		2	mg/Kg	250	243	97	80 - 120	2014-04-30

Standard (CCV-2)

QC Batch: 111562

Date Analyzed: 2014-04-30

Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		2	mg/Kg	250	229	92	80 - 120	2014-04-30

Standard (CCV-1)

QC Batch: 111598

Date Analyzed: 2014-05-01

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/kg	0.100	0.0898	90	80 - 120	2014-05-01
Toluene		2	mg/kg	0.100	0.0898	90	80 - 120	2014-05-01
Ethylbenzene		2	mg/kg	0.100	0.0893	89	80 - 120	2014-05-01
Xylene		2	mg/kg	0.300	0.268	89	80 - 120	2014-05-01

Standard (CCV-2)

QC Batch: 111598

Date Analyzed: 2014-05-01

Analyzed By: AK

Report Date: May 1, 2014
Monument Drain Line

Work Order: 14042916
Monument Drain Line

Page Number: 28 of 32
Monument, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/kg	0.100	0.0910	91	80 - 120	2014-05-01
Toluene		2	mg/kg	0.100	0.0903	90	80 - 120	2014-05-01
Ethylbenzene		2	mg/kg	0.100	0.0897	90	80 - 120	2014-05-01
Xylene		2	mg/kg	0.300	0.271	90	80 - 120	2014-05-01

Standard (CCV-1)

QC Batch: 111599

Date Analyzed: 2014-05-01

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		2	mg/Kg	1.00	1.03	103	80 - 120	2014-05-01

Standard (CCV-2)

QC Batch: 111599

Date Analyzed: 2014-05-01

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		2	mg/Kg	1.00	0.986	99	80 - 120	2014-05-01

Standard (ICV-1)

QC Batch: 111605

Date Analyzed: 2014-05-01

Analyzed By: RG

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2014-05-01

Standard (CCV-1)

QC Batch: 111605

Date Analyzed: 2014-05-01

Analyzed By: RG

Report Date: May 1, 2014
Monument Drain Line

Work Order: 14042916
Monument Drain Line

Page Number: 29 of 32
Monument, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2014-05-01

Standard (CCV-1)

QC Batch: 111620

Date Analyzed: 2014-05-01

Analyzed By: TP

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		1	mg/L	0.0100	0.0104	104	80 - 120	2014-05-01

Standard (CCV-2)

QC Batch: 111620

Date Analyzed: 2014-05-01

Analyzed By: TP

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		1	mg/L	0.0100	0.0105	105	80 - 120	2014-05-01

Standard (ICV-1)

QC Batch: 111622

Date Analyzed: 2014-05-01

Analyzed By: LM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		1	mg/Kg	0.125	0.126	101	90 - 110	2014-05-01
Total Arsenic		1	mg/Kg	1.00	0.994	99	90 - 110	2014-05-01
Total Barium		1	mg/Kg	1.00	1.02	102	90 - 110	2014-05-01
Total Cadmium		1	mg/Kg	1.00	1.01	101	90 - 110	2014-05-01
Total Chromium		1	mg/Kg	1.00	1.01	101	90 - 110	2014-05-01
Total Lead		1	mg/Kg	1.00	1.02	102	90 - 110	2014-05-01
Total Selenium		1	mg/Kg	1.00	1.01	101	90 - 110	2014-05-01

Report Date: May 1, 2014
Monument Drain Line

Work Order: 14042916
Monument Drain Line

Page Number: 30 of 32
Monument, NM

Standard (CCV-1)

QC Batch: 111622

Date Analyzed: 2014-05-01

Analyzed By: LM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		1	mg/Kg	0.125	0.129	103	90 - 110	2014-05-01
Total Arsenic		1	mg/Kg	1.00	1.05	105	90 - 110	2014-05-01
Total Barium		1	mg/Kg	1.00	1.04	104	90 - 110	2014-05-01
Total Cadmium		1	mg/Kg	1.00	1.05	105	90 - 110	2014-05-01
Total Chromium		1	mg/Kg	1.00	1.05	105	90 - 110	2014-05-01
Total Lead		1	mg/Kg	1.00	1.07	107	90 - 110	2014-05-01
Total Selenium		1	mg/Kg	1.00	1.08	108	90 - 110	2014-05-01

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-14-10	Lubbock
2	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

email: lab@traceanalysis.com

Company Name:

Company Name: Kinder Morgan Phone #: 713 369 9556

Address: (Street, City, Zip) Monument + Compressor Station, NM
Contact Person:

Contact Person: David White

Invoice to:

(If different from above)

Project #:

Project Name: Drain Line

Project Location (including state):

Monument Compressor Station, NM

[illegible][illegible]

ANALYSIS REQUEST

(Circle or Specify Method No.)

REMARKS:

from field on ice - AJ

24h, on metals

**Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting
Limits Are Needed**

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Appendix C
Photographic Documentation

Collecting Bottom Sample
April 8, 2014



South Side 20'
Sample Location
April 29, 2014



East Side 20'
Sample Location
April 29, 2014

North Side 20'
Sample Location
April 29, 2014



West Side 20'
Sample Location
April 29, 2014



Excavated Material
April 29, 2014