

From: [Yu, Olivia, EMNRD](#)
To: [Gonzales, Clair](#); [Carmona, Mike](#); [Hernandez, Christina, EMNRD](#)
Cc: [James_Kennedy@eogresources.com](#); [Jamon_Hohensee@eogresources.com](#)
Subject: RE: EOG-Rattlesnake Reuse Pit Work Plan (1RP-5113)
Date: Monday, October 22, 2018 8:57:00 AM

Good morning Ms. Gonzales:

Thanks for the missing data. The proposed remediation and revegetation plan for 1RP-5113 is accepted. Please include the revegetation plan in the closure or deferral report for 1RP-5113.

Thanks,
Olivia

From: Gonzales, Clair <Clair.Gonzales@tetrattech.com>
Sent: Wednesday, October 17, 2018 8:59 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Carmona, Mike <Mike.Carmona@tetrattech.com>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>
Cc: James_Kennedy@eogresources.com; Jamon_Hohensee@eogresources.com
Subject: [EXT] RE: EOG-Rattlesnake Reuse Pit Work Plan (1RP-5113)

Olivia,

The notes below are acknowledged.

I apologize for the mistake; attached is the correct/revised laboratory report showing the TPH analysis for AH-8 to AH-10 at 1-1.5'. The stockpiled material onsite was from the initial response and will be hauled for proper disposal. Additionally, the areas of T-11 and T-12 will be excavated to 1.0'-2.0' below surface to remove the chloride concentrations above 600 mg/kg, to the maximum extent safely possible due to the onsite equipment. Once the excavation and remediation activities are complete, the pasture area will be reseeded with BLM Seed Mixture 3, for Shallow Sites, in June 2019 to coincide with the rainy season in southeastern New Mexico.

Let me know if you have any other questions or concerns.

Thank you,
Clair Gonzales

Clair Gonzales | Project Manager

Phone: 432.687.8123 | Mobile 432.260.8634 | Fax:432.682.3946

clair.gonzales@tetrattech.com

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From: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>

Sent: Sunday, October 07, 2018 11:44 AM

To: Carmona, Mike <Mike.Carmona@tetrattech.com>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>

Cc: Gonzales, Clair <Clair.Gonzales@tetrattech.com>; James_Kennedy@eogresources.com; Jamon_Hohensee@eogresources.com

Subject: RE: EOG-Rattlesnake Reuse Pit Work Plan (1RP-5113)

Mr. Carmona:

Notes:

- Per 19.15.29 NMAC, please note that site characterization criteria includes assessment of watercourses within 0.5 mile radius of the release boundaries. There is a NMOSE identified watercourse within 0.5 miles Southwest of the release area.
- Please be advised that for all releases after August 14, 2018, the effective date of revised 19.15.29 NMAC, the Responsible Operator needs to verified that there is no protected groundwater within 50 ft. bgs, if there are no USGS or NMOSE water data within approximately 0.5 mile radius. For future incidents similar to 1RP-5113, a soil bore to at least 100 ft. bgs will be necessary for verification as per 19.15.29.11.A.
- Release occurred in medium cave-karst region.
- Release point is missing in figures.
- Please be advised that any portion of the release area, which could not be remediated, due to infrastructure after all possible mechanical methods have been attempted, would result in a deferral of 1RP-5113.
- Closure photos and confirmation samples will need to be dated and geo-referenced.

NMOCD will approve of the delineation as completed for 1RP-5113, contingent upon addressal of the following concerns regarding the delineation report for 1RP-5113.

1. Tabulated data indicated that there were TPH analyses for AH-8 to AH-10 for the 1-1.5 depths on sample date 7/2/2018. However, neither the chain of custody nor laboratory results indicated that samples at this depth were laboratory analyzed. Please provide this missing documentation if not an oversight.
2. Please identified the stockpiled soil. Contaminated soil on plastic for later disposal?
3. The release area represented by T-11 to T-13 will need to be remediated as per 19.15.29.13. The pasture needs to be restored, reclaimed, and revegetated to pre-release conditions. What is the remediation plan for this section of the release area?

Thanks,
Olivia

From: Carmona, Mike <Mike.Carmona@tetrattech.com>

Sent: Thursday, September 6, 2018 8:34 AM

To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>

Cc: Gonzales, Clair <Clair.Gonzales@tetrattech.com>; James_Kennedy@eogresources.com; Jamon_Hohensee@eogresources.com

Subject: EOG-Rattlesnake Reuse Pit Work Plan (1RP-5113)

Good Morning,

Attached is the work plan for the above-referenced site located in Lea County, New Mexico. Once approved, EOG will implement the work plan. Let me know if you have any questions or concerns.

Sincerely,

Mike J. Carmona | Geologist

Direct +1 (432) 687-8121 | Cell +1 (432) 270-0197 | mike.carmona@tetrattech.com

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Analytical Report 591157

for Tetra Tech- Midland

Project Manager: Clair Gonzales

Rattle Snake Reuse Pit

212C-MD-01300

16-JUL-18

Collected By: Client



RECEIVED
By Olivia Yu at 8:53 am, Oct 22, 2018



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)



16-JUL-18

Project Manager: **Clair Gonzales**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **591157**
Rattle Snake Reuse Pit
Project Address: Lea County, NM

Clair Gonzales:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 591157. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 591157 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

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Tetra Tech- Midland, Midland, TX

Rattle Snake Reuse Pit

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 (0-1')	S	07-02-18 00:00		591157-001
T-1 (1')	S	07-02-18 00:00		591157-002
T-1 (2')	S	07-02-18 00:00		591157-003
T-1 (4')	S	07-02-18 00:00		591157-004
T-1 (6')	S	07-02-18 00:00		591157-005
T-1 (8')	S	07-02-18 00:00		591157-006
T-1 (10')	S	07-02-18 00:00		591157-007
T-1 (12')	S	07-02-18 00:00		591157-008
T-2 (0-1')	S	07-02-18 00:00		591157-009
T-2 (1')	S	07-02-18 00:00		591157-010
T-2 (2')	S	07-02-18 00:00		591157-011
T-2 (4')	S	07-02-18 00:00		591157-012
T-2 (6')	S	07-02-18 00:00		591157-013
T-2 (8')	S	07-02-18 00:00		591157-014
T-3 (0-1')	S	07-02-18 00:00		591157-015
T-3 (1')	S	07-02-18 00:00		591157-016
T-3 (2')	S	07-02-18 00:00		591157-017
T-3 (4')	S	07-02-18 00:00		591157-018
T-3 (6')	S	07-02-18 00:00		591157-019
T-3 (8')	S	07-02-18 00:00		591157-020
T-3 (10')	S	07-02-18 00:00		591157-021
T-4 (0-1')	S	07-02-18 00:00		591157-022
T-4 (1')	S	07-02-18 00:00		591157-023
T-4 (2')	S	07-02-18 00:00		591157-024
T-4 (4')	S	07-02-18 00:00		591157-025
T-4 (6')	S	07-02-18 00:00		591157-026
T-4 (8')	S	07-02-18 00:00		591157-027
T-5 (0-1')	S	07-02-18 00:00		591157-028
T-5 (1')	S	07-02-18 00:00		591157-029
T-5 (2')	S	07-02-18 00:00		591157-030
T-5 (4')	S	07-02-18 00:00		591157-031
T-5 (6')	S	07-02-18 00:00		591157-032
T-5 (8')	S	07-02-18 00:00		591157-033
T-6 (0-1')	S	07-02-18 00:00		591157-034
T-6 (1')	S	07-02-18 00:00		591157-035
T-6 (2')	S	07-02-18 00:00		591157-036
T-6 (4')	S	07-02-18 00:00		591157-037
T-6 (6')	S	07-02-18 00:00		591157-038
T-6 (8')	S	07-02-18 00:00		591157-039
T-7 (0-1')	S	07-02-18 00:00		591157-040
T-7 (1')	S	07-02-18 00:00		591157-041
T-7 (2')	S	07-02-18 00:00		591157-042
T-7 (4')	S	07-02-18 00:00		591157-043

Tetra Tech- Midland, Midland, TX

Rattle Snake Reuse Pit

T-7 (6')	S	07-02-18 00:00	591157-044
T-7 (8')	S	07-02-18 00:00	591157-045
AH-8 (0-1')	S	07-02-18 00:00	591157-046
AH-8 (1-1.5')	S	07-02-18 00:00	591157-047
AH-8 (2-2.5')	S	07-02-18 00:00	591157-048
AH-8 (3-3.5')	S	07-02-18 00:00	591157-049
AH-9 (0-1')	S	07-02-18 00:00	591157-050
AH-9 (1-1.5')	S	07-02-18 00:00	591157-051
AH-9 (2-2.5')	S	07-02-18 00:00	591157-052
AH-9 (3-3.5')	S	07-02-18 00:00	591157-053
AH-10 (0-1')	S	07-02-18 00:00	591157-054
AH-10 (1-1.5')	S	07-02-18 00:00	591157-055
AH-10 (2-2.5')	S	07-02-18 00:00	591157-056
AH-10 (3-3.5')	S	07-02-18 00:00	591157-057



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Rattle Snake Reuse Pit

Project ID: 212C-MD-01300
Work Order Number(s): 591157

Report Date: 16-JUL-18
Date Received: 07/03/2018

Sample receipt non conformances and comments:

591157-051, 055 released from hold for TPH per COC instructions 07/10--KB

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3055792 Chloride by EPA 300

Lab Sample ID 591157-025 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 591157-015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3055798 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3055801 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-001	591157-002	591157-003	591157-004	591157-005	591157-006
	<i>Field Id:</i>	T-1 (0-1')	T-1 (1')	T-1 (2')	T-1 (4')	T-1 (6')	T-1 (8')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Jul-08-18 08:00					
	<i>Analyzed:</i>	Jul-08-18 14:58					
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00201 0.00201					
Toluene		<0.00201 0.00201					
Ethylbenzene		<0.00201 0.00201					
m,p-Xylenes		<0.00402 0.00402					
o-Xylene		<0.00201 0.00201					
Total Xylenes		<0.00201 0.00201					
Total BTEX		<0.00201 0.00201					
Chloride by EPA 300	<i>Extracted:</i>	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30
	<i>Analyzed:</i>	Jul-07-18 13:34	Jul-07-18 13:39	Jul-07-18 13:45	Jul-07-18 13:55	Jul-07-18 13:50	Jul-07-18 14:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5560 50.0	6460 49.6	1880 25.0	14.7 4.98	138 25.0	131 24.7
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-08-18 10:00					
	<i>Analyzed:</i>	Jul-08-18 17:31					
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9					
Diesel Range Organics (DRO)		537 14.9					
Oil Range Hydrocarbons (ORO)		<14.9 14.9					
Total TPH		537 14.9					

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-007	591157-008	591157-009	591157-010	591157-011	591157-012
	<i>Field Id:</i>	T-1 (10')	T-1 (12')	T-2 (0-1')	T-2 (1')	T-2 (2')	T-2 (4')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>			Jul-08-18 08:00			
	<i>Analyzed:</i>			Jul-08-18 15:16			
	<i>Units/RL:</i>			mg/kg RL			
Benzene				<0.00201 0.00201			
Toluene				<0.00201 0.00201			
Ethylbenzene				<0.00201 0.00201			
m,p-Xylenes				<0.00402 0.00402			
o-Xylene				<0.00201 0.00201			
Total Xylenes				<0.00201 0.00201			
Total BTEX				<0.00201 0.00201			
Chloride by EPA 300	<i>Extracted:</i>	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 11:30
	<i>Analyzed:</i>	Jul-07-18 14:17	Jul-07-18 14:33	Jul-07-18 14:39	Jul-07-18 14:44	Jul-07-18 14:49	Jul-07-18 14:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		289 24.5	418 24.9	935 4.98	154 4.94	4230 25.0	34.5 4.92
TPH by SW8015 Mod	<i>Extracted:</i>			Jul-08-18 10:00			
	<i>Analyzed:</i>			Jul-08-18 17:50			
	<i>Units/RL:</i>			mg/kg RL			
Gasoline Range Hydrocarbons (GRO)				<15.0 15.0			
Diesel Range Organics (DRO)				18.6 15.0			
Oil Range Hydrocarbons (ORO)				<15.0 15.0			
Total TPH				18.6 15.0			

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-013	591157-014	591157-015	591157-016	591157-017	591157-018
	<i>Field Id:</i>	T-2 (6')	T-2 (8')	T-3 (0-1')	T-3 (1')	T-3 (2')	T-3 (4')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>			Jul-08-18 08:00			
	<i>Analyzed:</i>			Jul-08-18 15:34			
	<i>Units/RL:</i>			mg/kg RL			
Benzene				<0.00199 0.00199			
Toluene				<0.00199 0.00199			
Ethylbenzene				<0.00199 0.00199			
m,p-Xylenes				<0.00398 0.00398			
o-Xylene				<0.00199 0.00199			
Total Xylenes				<0.00199 0.00199			
Total BTEX				<0.00199 0.00199			
Chloride by EPA 300	<i>Extracted:</i>	Jul-07-18 11:30	Jul-07-18 11:30	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00
	<i>Analyzed:</i>	Jul-09-18 11:49	Jul-07-18 15:06	Jul-07-18 15:54	Jul-07-18 16:00	Jul-07-18 15:38	Jul-07-18 16:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		24.5 4.99	72.4 24.6	2130 24.8	2000 24.8	270 4.94	33.3 4.93
TPH by SW8015 Mod	<i>Extracted:</i>			Jul-08-18 10:00			
	<i>Analyzed:</i>			Jul-08-18 18:09			
	<i>Units/RL:</i>			mg/kg RL			
Gasoline Range Hydrocarbons (GRO)				<15.0 15.0			
Diesel Range Organics (DRO)				<15.0 15.0			
Oil Range Hydrocarbons (ORO)				<15.0 15.0			
Total TPH				<15.0 15.0			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-019	591157-020	591157-021	591157-022	591157-023	591157-024
	<i>Field Id:</i>	T-3 (6')	T-3 (8')	T-3 (10')	T-4 (0-1')	T-4 (1')	T-4 (2')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				Jul-08-18 08:00		
	<i>Analyzed:</i>				Jul-08-18 15:52		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00200 0.00200		
Toluene					<0.00200 0.00200		
Ethylbenzene					<0.00200 0.00200		
m,p-Xylenes					<0.00399 0.00399		
o-Xylene					<0.00200 0.00200		
Total Xylenes					<0.00200 0.00200		
Total BTEX					<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00
	<i>Analyzed:</i>	Jul-07-18 16:10	Jul-07-18 16:27	Jul-07-18 16:32	Jul-07-18 16:37	Jul-07-18 16:43	Jul-07-18 16:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.9 4.94	7.59 5.00	<4.95 4.95	2700 24.9	3580 24.6	3290 24.5
TPH by SW8015 Mod	<i>Extracted:</i>				Jul-08-18 10:00		
	<i>Analyzed:</i>				Jul-08-18 18:29		
	<i>Units/RL:</i>				mg/kg RL		
Gasoline Range Hydrocarbons (GRO)					<15.0 15.0		
Diesel Range Organics (DRO)					26.5 15.0		
Oil Range Hydrocarbons (ORO)					<15.0 15.0		
Total TPH					26.5 15.0		

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-025	591157-026	591157-027	591157-028	591157-029	591157-030
	<i>Field Id:</i>	T-4 (4')	T-4 (6')	T-4 (8')	T-5 (0-1')	T-5 (1')	T-5 (2')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				Jul-08-18 08:00		
	<i>Analyzed:</i>				Jul-08-18 16:10		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00200 0.00200		
Toluene					<0.00200 0.00200		
Ethylbenzene					<0.00200 0.00200		
m,p-Xylenes					<0.00401 0.00401		
o-Xylene					<0.00200 0.00200		
Total Xylenes					<0.00200 0.00200		
Total BTEX					<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00
	<i>Analyzed:</i>	Jul-07-18 16:54	Jul-07-18 17:10	Jul-07-18 17:15	Jul-07-18 17:31	Jul-07-18 17:37	Jul-07-18 17:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		195 4.92	117 4.96	10.7 4.94	1770 24.6	2020 25.0	146 4.90
TPH by SW8015 Mod	<i>Extracted:</i>				Jul-08-18 10:00		
	<i>Analyzed:</i>				Jul-08-18 18:48		
	<i>Units/RL:</i>				mg/kg RL		
Gasoline Range Hydrocarbons (GRO)					<15.0 15.0		
Diesel Range Organics (DRO)					168 15.0		
Oil Range Hydrocarbons (ORO)					<15.0 15.0		
Total TPH					168 15.0		

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-031	591157-032	591157-033	591157-034	591157-035	591157-036
	<i>Field Id:</i>	T-5 (4')	T-5 (6')	T-5 (8')	T-6 (0-1')	T-6 (1')	T-6 (2')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				Jul-08-18 08:00		
	<i>Analyzed:</i>				Jul-08-18 16:28		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00199 0.00199		
Toluene					<0.00199 0.00199		
Ethylbenzene					<0.00199 0.00199		
m,p-Xylenes					<0.00398 0.00398		
o-Xylene					<0.00199 0.00199		
Total Xylenes					<0.00199 0.00199		
Total BTEX					<0.00199 0.00199		
Chloride by EPA 300	<i>Extracted:</i>	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-07-18 12:00	Jul-09-18 14:00	Jul-09-18 14:00
	<i>Analyzed:</i>	Jul-07-18 17:48	Jul-07-18 17:53	Jul-07-18 17:58	Jul-07-18 18:04	Jul-09-18 18:46	Jul-09-18 18:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		48.2 4.90	21.1 4.95	15.7 4.90	5290 49.9	4140 25.0	1240 4.94
TPH by SW8015 Mod	<i>Extracted:</i>				Jul-08-18 10:00		
	<i>Analyzed:</i>				Jul-08-18 19:07		
	<i>Units/RL:</i>				mg/kg RL		
Gasoline Range Hydrocarbons (GRO)					<15.0 15.0		
Diesel Range Organics (DRO)					404 15.0		
Oil Range Hydrocarbons (ORO)					<15.0 15.0		
Total TPH					404 15.0		

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-037	591157-038	591157-039	591157-040	591157-041	591157-042
	<i>Field Id:</i>	T-6 (4')	T-6 (6')	T-6 (8')	T-7 (0-1')	T-7 (1')	T-7 (2')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				Jul-08-18 08:30		
	<i>Analyzed:</i>				Jul-08-18 19:10		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00201 0.00201		
Toluene					<0.00201 0.00201		
Ethylbenzene					<0.00201 0.00201		
m,p-Xylenes					<0.00402 0.00402		
o-Xylene					<0.00201 0.00201		
Total Xylenes					<0.00201 0.00201		
Total BTEX					<0.00201 0.00201		
Chloride by EPA 300	<i>Extracted:</i>	Jul-09-18 14:00	Jul-09-18 14:00	Jul-09-18 14:00	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30
	<i>Analyzed:</i>	Jul-09-18 18:57	Jul-09-18 19:03	Jul-09-18 19:08	Jul-09-18 19:57	Jul-09-18 20:02	Jul-09-18 20:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		8.37 4.92	1010 4.98	11.5 5.00	4850 49.2	5060 49.6	3490 24.8
TPH by SW8015 Mod	<i>Extracted:</i>				Jul-08-18 10:00		
	<i>Analyzed:</i>				Jul-08-18 19:27		
	<i>Units/RL:</i>				mg/kg RL		
Gasoline Range Hydrocarbons (GRO)					<15.0 15.0		
Diesel Range Organics (DRO)					538 15.0		
Oil Range Hydrocarbons (ORO)					<15.0 15.0		
Total TPH					538 15.0		

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-043	591157-044	591157-045	591157-046	591157-047	591157-048
	<i>Field Id:</i>	T-7 (4')	T-7 (6')	T-7 (8')	AH-8 (0-1')	AH-8 (1-1.5')	AH-8 (2-2.5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				Jul-08-18 08:30		
	<i>Analyzed:</i>				Jul-08-18 19:28		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00200 0.00200		
Toluene					<0.00200 0.00200		
Ethylbenzene					<0.00200 0.00200		
m,p-Xylenes					<0.00401 0.00401		
o-Xylene					<0.00200 0.00200		
Total Xylenes					<0.00200 0.00200		
Total BTEX					<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30
	<i>Analyzed:</i>	Jul-09-18 19:40	Jul-09-18 20:13	Jul-09-18 20:29	Jul-09-18 20:34	Jul-09-18 20:40	Jul-09-18 20:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		219 4.94	54.1 4.91	427 4.90	4070 24.9	4590 50.0	5470 49.1
TPH by SW8015 Mod	<i>Extracted:</i>				Jul-08-18 10:00		
	<i>Analyzed:</i>				Jul-08-18 19:46		
	<i>Units/RL:</i>				mg/kg RL		
Gasoline Range Hydrocarbons (GRO)					<15.0 15.0		
Diesel Range Organics (DRO)					653 15.0		
Oil Range Hydrocarbons (ORO)					<15.0 15.0		
Total TPH					653 15.0		

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-049	591157-050	591157-051	591157-052	591157-053	591157-054
	<i>Field Id:</i>	AH-8 (3-3.5')	AH-9 (0-1')	AH-9 (1-1.5')	AH-9 (2-2.5')	AH-9 (3-3.5')	AH-10 (0-1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00
BTEX by EPA 8021B	<i>Extracted:</i>		Jul-08-18 08:30				Jul-08-18 08:30
	<i>Analyzed:</i>		Jul-08-18 20:22				Jul-08-18 19:46
	<i>Units/RL:</i>		mg/kg RL				mg/kg RL
Benzene			<0.00200 0.00200				<0.00199 0.00199
Toluene			<0.00200 0.00200				<0.00199 0.00199
Ethylbenzene			0.00746 0.00200				0.00346 0.00199
m,p-Xylenes			0.0808 0.00399				0.0603 0.00398
o-Xylene			0.0113 0.00200				0.00713 0.00199
Total Xylenes			0.0921 0.00200				0.0674 0.00199
Total BTEX			0.0996 0.00200				0.0709 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30
	<i>Analyzed:</i>	Jul-09-18 20:51	Jul-09-18 21:18	Jul-09-18 21:34	Jul-09-18 21:39	Jul-09-18 21:45	Jul-09-18 21:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1540 24.9	3140 25.0	4400 49.5	7250 49.8	4960 49.6	3340 24.9
TPH by SW8015 Mod	<i>Extracted:</i>		Jul-08-18 10:00	Jul-13-18 07:00			Jul-07-18 11:00
	<i>Analyzed:</i>		Jul-08-18 20:06	Jul-13-18 09:42			Jul-08-18 09:09
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL			mg/kg RL
Gasoline Range Hydrocarbons (GRO)			224 74.9	<15.0 15.0			104 74.9
Diesel Range Organics (DRO)			13000 74.9	237 15.0			8530 74.9
Oil Range Hydrocarbons (ORO)			89.8 74.9	<15.0 15.0			147 74.9
Total TPH			13300 74.9	237 15.0			8780 74.9

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 591157



Tetra Tech- Midland, Midland, TX

Project Name: Rattle Snake Reuse Pit

Project Id: 212C-MD-01300

Contact: Clair Gonzales

Project Location: Lea County, NM

Date Received in Lab: Tue Jul-03-18 09:41 am

Report Date: 16-JUL-18

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	591157-055	591157-056	591157-057			
	<i>Field Id:</i>	AH-10 (1-1.5')	AH-10 (2-2.5')	AH-10 (3-3.5')			
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Jul-02-18 00:00	Jul-02-18 00:00	Jul-02-18 00:00			
Chloride by EPA 300	<i>Extracted:</i>	Jul-09-18 15:30	Jul-09-18 15:30	Jul-09-18 15:30			
	<i>Analyzed:</i>	Jul-09-18 21:55	Jul-09-18 22:01	Jul-09-18 22:06			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		4850 49.0	6140 49.9	4000 24.9			
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-13-18 07:00					
	<i>Analyzed:</i>	Jul-13-18 10:41					
	<i>Units/RL:</i>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0					
Diesel Range Organics (DRO)		143 15.0					
Oil Range Hydrocarbons (ORO)		<15.0 15.0					
Total TPH		143 15.0					

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Kelsey Brooks
Project Manager



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055923

Sample: 591157-054 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 09:09

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	64.4	49.9	129	70-135	

Lab Batch #: 3055798

Sample: 591157-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 14:58

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	
4-Bromofluorobenzene	0.0276	0.0300	92	70-130	

Lab Batch #: 3055798

Sample: 591157-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 15:16

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	70-130	
4-Bromofluorobenzene	0.0252	0.0300	84	70-130	

Lab Batch #: 3055798

Sample: 591157-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 15:34

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0379	0.0300	126	70-130	
4-Bromofluorobenzene	0.0262	0.0300	87	70-130	

Lab Batch #: 3055798

Sample: 591157-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 15:52

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0213	0.0300	71	70-130	
4-Bromofluorobenzene	0.0249	0.0300	83	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055798

Sample: 591157-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 16:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0357	0.0300	119	70-130	
4-Bromofluorobenzene	0.0245	0.0300	82	70-130	

Lab Batch #: 3055798

Sample: 591157-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 16:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0251	0.0300	84	70-130	

Lab Batch #: 3055931

Sample: 591157-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 17:31

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.2	99.6	99	70-135	
o-Terphenyl	56.9	49.8	114	70-135	

Lab Batch #: 3055931

Sample: 591157-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 17:50

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.3	99.9	98	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 3055931

Sample: 591157-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 18:09

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055931

Sample: 591157-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 18:29

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.4	100	95	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

Lab Batch #: 3055931

Sample: 591157-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 18:48

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.6	99.7	94	70-135	
o-Terphenyl	53.3	49.9	107	70-135	

Lab Batch #: 3055931

Sample: 591157-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 19:07

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.9	99.7	97	70-135	
o-Terphenyl	55.1	49.9	110	70-135	

Lab Batch #: 3055801

Sample: 591157-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 19:10

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0388	0.0300	129	70-130	
4-Bromofluorobenzene	0.0269	0.0300	90	70-130	

Lab Batch #: 3055931

Sample: 591157-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 19:27

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.9	107	70-135	
o-Terphenyl	61.1	50.0	122	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055801

Sample: 591157-046 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 19:28

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0314	0.0300	105	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3055931

Sample: 591157-046 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 19:46

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.8	99.8	98	70-135	
o-Terphenyl	58.3	49.9	117	70-135	

Lab Batch #: 3055801

Sample: 591157-054 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 19:46

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0213	0.0300	71	70-130	
4-Bromofluorobenzene	0.0272	0.0300	91	70-130	

Lab Batch #: 3055931

Sample: 591157-050 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 20:06

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	106	99.8	106	70-135	
o-Terphenyl	49.4	49.9	99	70-135	

Lab Batch #: 3055801

Sample: 591157-050 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 20:22

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0320	0.0300	107	70-130	
4-Bromofluorobenzene	0.0340	0.0300	113	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3056558

Sample: 591157-051 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/13/18 09:42

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.9	128	70-135	
o-Terphenyl	64.9	50.0	130	70-135	

Lab Batch #: 3056558

Sample: 591157-055 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/13/18 10:41

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.7	118	70-135	
o-Terphenyl	63.9	49.9	128	70-135	

Lab Batch #: 3055923

Sample: 7658082-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/07/18 19:02

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.8	100	100	70-135	
o-Terphenyl	53.9	50.0	108	70-135	

Lab Batch #: 3055798

Sample: 7658000-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 09:51

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	70-130	
4-Bromofluorobenzene	0.0218	0.0300	73	70-130	

Lab Batch #: 3055931

Sample: 7658088-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 11:36

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	100	98	70-135	
o-Terphenyl	52.4	50.0	105	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055801

Sample: 7658002-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 18:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0366	0.0300	122	70-130	
4-Bromofluorobenzene	0.0337	0.0300	112	70-130	

Lab Batch #: 3056558

Sample: 7658383-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/13/18 08:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	60.0	50.0	120	70-135	

Lab Batch #: 3055923

Sample: 7658082-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/07/18 19:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	57.7	50.0	115	70-135	

Lab Batch #: 3055798

Sample: 7658000-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 08:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	70-130	
4-Bromofluorobenzene	0.0256	0.0300	85	70-130	

Lab Batch #: 3055931

Sample: 7658088-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 11:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055801

Sample: 7658002-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 17:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0227	0.0300	76	70-130	

Lab Batch #: 3056558

Sample: 7658383-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/13/18 09:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	55.6	50.0	111	70-135	

Lab Batch #: 3055923

Sample: 7658082-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/07/18 19:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	56.2	50.0	112	70-135	

Lab Batch #: 3055798

Sample: 7658000-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 08:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0247	0.0300	82	70-130	

Lab Batch #: 3055931

Sample: 7658088-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 12:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	53.8	50.0	108	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055801

Sample: 7658002-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/08/18 17:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	70-130	
4-Bromofluorobenzene	0.0264	0.0300	88	70-130	

Lab Batch #: 3056558

Sample: 7658383-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/13/18 09:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	54.6	50.0	109	70-135	

Lab Batch #: 3055923

Sample: 591024-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/07/18 20:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.7	118	70-135	
o-Terphenyl	48.7	49.9	98	70-135	

Lab Batch #: 3055798

Sample: 591031-011 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 08:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0271	0.0300	90	70-130	

Lab Batch #: 3055931

Sample: 591031-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 12:55

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.9	118	70-135	
o-Terphenyl	53.4	50.0	107	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055801

Sample: 591178-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 17:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0367	0.0300	122	70-130	
4-Bromofluorobenzene	0.0265	0.0300	88	70-130	

Lab Batch #: 3056558

Sample: 591157-051 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/13/18 10:02

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	99.8	130	70-135	
o-Terphenyl	62.2	49.9	125	70-135	

Lab Batch #: 3055923

Sample: 591024-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/07/18 20:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.9	116	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 3055798

Sample: 591031-011 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 09:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0378	0.0300	126	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3055931

Sample: 591031-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 13:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.9	118	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Rattle Snake Reuse Pit

Work Orders : 591157,

Project ID: 212C-MD-01300

Lab Batch #: 3055801

Sample: 591178-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/08/18 17:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0232	0.0300	77	70-130	

Lab Batch #: 3056558

Sample: 591157-051 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/13/18 10:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.9	123	70-135	
o-Terphenyl	56.9	50.0	114	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order #: 591157

Project ID: 212C-MD-01300

Analyst: ALJ

Date Prepared: 07/08/2018

Date Analyzed: 07/08/2018

Lab Batch ID: 3055798

Sample: 7658000-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.104	104	0.101	0.0859	85	19	70-130	35	
Toluene	<0.00200	0.100	0.107	107	0.101	0.0893	88	18	70-130	35	
Ethylbenzene	<0.00200	0.100	0.108	108	0.101	0.0885	88	20	70-130	35	
m,p-Xylenes	<0.00401	0.200	0.221	111	0.201	0.181	90	20	70-130	35	
o-Xylene	<0.00200	0.100	0.104	104	0.101	0.0863	85	19	70-130	35	

Analyst: ALJ

Date Prepared: 07/08/2018

Date Analyzed: 07/08/2018

Lab Batch ID: 3055801

Sample: 7658002-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.0837	84	0.101	0.0829	82	1	70-130	35	
Toluene	<0.00200	0.100	0.0837	84	0.101	0.0837	83	0	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0839	84	0.101	0.0822	81	2	70-130	35	
m,p-Xylenes	<0.00401	0.200	0.173	87	0.201	0.171	85	1	70-130	35	
o-Xylene	<0.00200	0.100	0.0809	81	0.101	0.0847	84	5	70-130	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order #: 591157

Project ID: 212C-MD-01300

Analyst: SCM

Date Prepared: 07/07/2018

Date Analyzed: 07/07/2018

Lab Batch ID: 3055789

Sample: 7657954-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	250	100	250	252	101	1	90-110	20	

Analyst: SCM

Date Prepared: 07/07/2018

Date Analyzed: 07/07/2018

Lab Batch ID: 3055792

Sample: 7657955-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	249	100	250	248	99	0	90-110	20	

Analyst: SCM

Date Prepared: 07/09/2018

Date Analyzed: 07/09/2018

Lab Batch ID: 3055865

Sample: 7658034-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	272	109	250	271	108	0	90-110	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order #: 591157

Project ID: 212C-MD-01300

Analyst: SCM

Date Prepared: 07/09/2018

Date Analyzed: 07/09/2018

Lab Batch ID: 3055866

Sample: 7658035-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<4.99	250	270	108	250	264	106	2	90-110	20	

Analyst: ARM

Date Prepared: 07/07/2018

Date Analyzed: 07/07/2018

Lab Batch ID: 3055923

Sample: 7658082-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1000	100	1000	991	99	1	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1000	1030	103	2	70-135	20	

Analyst: ARM

Date Prepared: 07/08/2018

Date Analyzed: 07/08/2018

Lab Batch ID: 3055931

Sample: 7658088-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	937	94	1000	1000	100	7	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	978	98	1000	1040	104	6	70-135	20	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order #: 591157

Project ID: 212C-MD-01300

Analyst: ARM

Date Prepared: 07/13/2018

Date Analyzed: 07/13/2018

Lab Batch ID: 3056558

Sample: 7658383-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	986	99	1000	968	97	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1030	103	1000	1020	102	1	70-135	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order # : 591157

Project ID: 212C-MD-01300

Lab Batch ID: 3055798

QC- Sample ID: 591031-011 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/08/2018

Date Prepared: 07/08/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0980	97	0.100	0.0845	85	15	70-130	35	
Toluene	<0.00202	0.101	0.0955	95	0.100	0.0816	82	16	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0927	92	0.100	0.0836	84	10	70-130	35	
m,p-Xylenes	<0.00403	0.202	0.192	95	0.201	0.171	85	12	70-130	35	
o-Xylene	<0.00202	0.101	0.0887	88	0.100	0.0788	79	12	70-130	35	

Lab Batch ID: 3055801

QC- Sample ID: 591178-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/08/2018

Date Prepared: 07/08/2018

Analyst: ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0959	96	0.101	0.0722	71	28	70-130	35	
Toluene	<0.00200	0.100	0.0759	76	0.101	0.0642	64	17	70-130	35	X
Ethylbenzene	<0.00200	0.100	0.0586	59	0.101	0.0451	45	26	70-130	35	X
m,p-Xylenes	<0.00401	0.200	0.118	59	0.201	0.0902	45	27	70-130	35	X
o-Xylene	<0.00200	0.100	0.0591	59	0.101	0.0415	41	35	70-130	35	X

Matrix Spike Percent Recovery $[D] = 100*(C-A)/B$
Relative Percent Difference $RPD = 200*((C-F)/(C+F))$

Matrix Spike Duplicate Percent Recovery $[G] = 100*(F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order # : 591157

Project ID: 212C-MD-01300

Lab Batch ID: 3055789

QC- Sample ID: 591085-017 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/07/2018

Date Prepared: 07/07/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.90	245	242	99	245	242	99	0	90-110	20	

Lab Batch ID: 3055789

QC- Sample ID: 591157-004 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/07/2018

Date Prepared: 07/07/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	14.7	249	258	98	249	257	97	0	90-110	20	

Lab Batch ID: 3055792

QC- Sample ID: 591157-017 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/07/2018

Date Prepared: 07/07/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	270	247	487	88	247	486	87	0	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order # : 591157

Project ID: 212C-MD-01300

Lab Batch ID: 3055792

QC- Sample ID: 591157-025 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/07/2018

Date Prepared: 07/07/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	195	246	426	94	246	424	93	0	90-110	20	

Lab Batch ID: 3055865

QC- Sample ID: 591545-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/09/2018

Date Prepared: 07/09/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	270	250	535	106	250	533	105	0	90-110	20	

Lab Batch ID: 3055865

QC- Sample ID: 591545-003 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/09/2018

Date Prepared: 07/09/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	148	249	409	105	249	409	105	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order # : 591157

Project ID: 212C-MD-01300

Lab Batch ID: 3055866

QC- Sample ID: 591157-043 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/09/2018

Date Prepared: 07/09/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	219	247	482	106	247	478	105	1	90-110	20	

Lab Batch ID: 3055866

QC- Sample ID: 591564-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/09/2018

Date Prepared: 07/09/2018

Analyst: SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	440	247	683	98	247	682	98	0	90-110	20	

Lab Batch ID: 3055923

QC- Sample ID: 591024-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/07/2018

Date Prepared: 07/07/2018

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	952	95	999	948	95	0	70-135	20	
Diesel Range Organics (DRO)	<15.0	997	1070	107	999	1060	106	1	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries



Project Name: Rattle Snake Reuse Pit

Work Order # : 591157

Project ID: 212C-MD-01300

Lab Batch ID: 3055931

QC- Sample ID: 591031-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/08/2018

Date Prepared: 07/08/2018

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1010	101	999	989	99	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	999	1050	105	999	1020	102	3	70-135	20	

Lab Batch ID: 3056558

QC- Sample ID: 591157-051 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 07/13/2018

Date Prepared: 07/13/2018

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	1080	108	999	996	100	8	70-135	20	
Diesel Range Organics (DRO)	237	998	1290	106	999	1250	101	3	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Tetra Tech, Inc.

4000 N. Ring Spring Street, Site
401 Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

591157

ANALYSIS REQUEST

(Circle or Specify Method No.)

Client Name: EOG Site Manager: Clair Gonzales

Project Name: Rattle Snake Reuse Pit

Project Location: Lea County, New Mexico Project #: 212C-MD-01300

Invoice to: EOG

Receiving Laboratory: Xenco Sampler Signature: Mike Carmona

Comments: Run Deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper samples if TPH exceeds 1,000 mg/kg

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		DATE	TIME	WATER SOIL	MATRIX	PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)
		YEAR: 2018						HCL	HNO ₃	ICE	None			
	T-1 (0-1')			7/2/2018		X	X	X	X	X			1	N
	T-1 (1')			7/2/2018		X	X	X	X	X			1	N
	T-1 (2')			7/2/2018		X	X	X	X	X			1	N
	T-1 (4')			7/2/2018		X	X	X	X	X			1	N
	T-1 (6')			7/2/2018		X	X	X	X	X			1	N
	T-1 (8')			7/2/2018		X	X	X	X	X			1	N
	T-1 (10')			7/2/2018		X	X	X	X	X			1	N
	T-1 (12')			7/2/2018		X	X	X	X	X			1	N
	T-2 (0-1')			7/2/2018		X	X	X	X	X			1	N
	T-2 (1')			7/2/2018		X	X	X	X	X			1	N

Relinquished by: *Resher Visteant* Date: 7-3-18 Time: _____

Relinquished by: *Resher Visteant* Date: 7/3/18 Time: 1941

Received by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

LAB USE ONLY

Sample Temperature: *8.2/10.0* *KG*

REMARKS: STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Push Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

591157

ANALYSIS REQUEST

(Circle or Specify Method No.)

Client Name:

EOG

Site Manager:

Clair Gonzales

Project Name:

Rattle Snake Reuse Pit

Project Location:

Lea County, New Mexico

Project #:

212C-MD-01300

Invoice to:

EOG

Receiving Laboratory:

Xenco

Sampler Signature:

Mike Carmona

Comments:

Run Deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper samples if TPH exceeds 1,000 mg/kg

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:
	YEAR: 2018	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
T-2 (2)	7/2/2018			X			X			1	N		
T-2 (4)	7/2/2018			X			X			1	N		
T-2 (6)	7/2/2018			X			X			1	N		
T-2 (8)	7/2/2018			X			X			1	N		
T-3 (0-1)	7/2/2018			X			X			1	N		
T-3 (1)	7/2/2018			X			X			1	N		
T-3 (2)	7/2/2018			X			X			1	N		
T-3 (4)	7/2/2018			X			X			1	N		
T-3 (6)	7/2/2018			X			X			1	N		
T-3 (8)	7/2/2018			X			X			1	N		

Relinquished by: Victor Alvarez Date: 7-2-18 Time: _____

Received by: Mike Paul Date: 7/3/18 Time: 0941

Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

LAB USE ONLY

Sample Temperature: 3.2/0.0

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

591157

Client Name: EOG Site Manager: Clair Gonzales

Project Name: Rattle Snake Reuse Pit

Project Location: Lea County, New Mexico Project #: 212C-MD-01300

Invoice to: EOG

Receiving Laboratory: Xenco Sampler Signature: Mike Carmona

Comments: Run Deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper samples if TPH exceeds 1,000 mg/kg

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
			DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None			
													YEAR: 2018
T-3 (10)			7/2/2018		X		X					1	N
T-4 (0-1)			7/2/2018		X		X					1	N
T-4 (1)			7/2/2018		X		X					1	N
T-4 (2)			7/2/2018		X		X					1	N
T-4 (4)			7/2/2018		X		X					1	N
T-4 (6)			7/2/2018		X		X					1	N
T-4 (8)			7/2/2018		X		X					1	N
T-5 (0-1)			7/2/2018		X		X					1	N
T-5 (1)			7/2/2018		X		X					1	N
T-5 (2)			7/2/2018		X		X					1	N

Relinquished by: *Reshma Patel* Date: 7-3-18 Time: *7:34*

Received by: *Mike Carmona* Date: 7/3/18 Time: *COU*

Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

ANALYSIS REQUEST
(Circle or Specify Method No.)

- BTEX 8021B
- BTEX 8260B
- TPH TX1005 (Ext to C35)
- TPH 8015M (GRO - DRO - ORO)
- PAH 8270C
- Total Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Volatiles
- TCLP Semi Volatiles
- RCI
- GC/MS Vol. 8260B / 624
- GC/MS Semi. Vol. 8270C/625
- PCB's 8082 / 608
- NORM
- PLM (Asbestos)
- Chloride
- Chloride Sulfate TDS
- General Water Chemistry (see attached list)
- Anion/Cation Balance

LAB USE ONLY

Sample Temperature: *3.2/10.0*

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

591157

Client Name: EOG **Site Manager:** Clair Gonzales

Project Name: Rattle Snake Reuse Pit

Project Location: Lea County, New Mexico **Project #:** 212C-MD-01300

Invoice to: EOG

Receiving Laboratory: Xenco **Sampler Signature:** Mike Carmona

Comments: Run Deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper samples if TPH exceeds 1,000 mg/kg.

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX				PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
	YEAR: 2018	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None			
T-5 (4)		7/2/2018		X				X			1	N
T-5 (6)		7/2/2018		X				X			1	N
T-5 (8)		7/2/2018		X				X			1	N
T-6 (0-1)		7/2/2018		X				X			1	N
T-6 (1)		7/2/2018		X				X			1	N
T-6 (2)		7/2/2018		X				X			1	N
T-6 (4)		7/2/2018		X				X			1	N
T-6 (6)		7/2/2018		X				X			1	N
T-6 (8)		7/2/2018		X				X			1	N
T-7 (0-1)		7/2/2018		X				X			1	N

Relinquished by: *Reston Lambert* Date: 7-3-18 Time:
 Received by: *Mike Rowe* Date: 7/3/18 Time: 6:44

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

LAB USE ONLY

Sample Temperature: 3.2/0.0
Ks

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Push Charges Authorized

Special Report Limits or TRRP Report

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

ORIGINAL COPY



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-9946

591157

Client Name: EOG **Site Manager:** Clair Gonzales

Project Name: Rattle Snake Reuse Pit

Project Location: Lea County, New Mexico **Project #:** 212C-MD-01300

Invoice to: EOG

Receiving Laboratory: Xenco **Sampler Signature:** Mike Carmona

Comments: Run Deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper samples if TPH exceeds 1,000 mg/kg.

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE			None
T-7 (1)		7/2/2018		X				X		1	N
T-7 (2)		7/2/2018		X				X		1	N
T-7 (4)		7/2/2018		X				X		1	N
T-7 (6)		7/2/2018		X				X		1	N
T-7 (8)		7/2/2018		X				X		1	N
AH-8 (0-1)		7/2/2018		X				X		1	N
AH-8 (1-1.5)		7/2/2018		X				X		1	N
AH-8 (2-2.5)		7/2/2018		X				X		1	N
AH-8 (3-3.5)		7/2/2018		X				X		1	N
AH-9 (0-1)		7/2/2018		X				X		1	N

Relinquished by: *Resha Portant* Date: 7-3-18 Time:
 Received by: *Mike Carmona* Date: 7/3/18 Time: 9 AM

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

REMARKS: STANDARD

LAB USE ONLY: RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

Sample Temperature: 32/0.0

ORIGINAL COPY



Tetra Tech, Inc.

4000 N. Big Spring Street, Ste 401
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

591157

ANALYSIS REQUEST

(Circle or Specify Method No.)

Client Name:

EOG

Site Manager:

Clair Gonzales

Project Name:

Rattle Snake Reuse Pit

Project Location:
(county, state)

Lea County, New Mexico

Project #:

212C-MD-01300

Invoice to:

EOG

Receiving Laboratory:

Xenco

Sampler Signature:

Mike Carmona

Comments:

Run Deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper samples if TPH exceeds 1,000 mg/kg

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	
	YEAR	DATE	TIME	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE			None
	7/2/2018					X		X				1	N
	7/2/2018					X		X				1	N
	7/2/2018					X		X				1	N
	7/2/2018					X		X				1	N
	7/2/2018					X		X				1	N
	7/2/2018					X		X				1	N
	7/2/2018					X		X				1	N

BTEX 8021B	BTEX 8260B
TPH TX1005 (Ext to C35)	
TPH 8015M (GRO - DRO - ORO)	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082 / 608	
NORM	
PLM (Asbestos)	
Chloride	
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	
Hold	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>Proctor Poterant</i>	7-3-17		<i>John Stuel</i>	7/3/18	0941
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature: *32/0.0*

REMARKS:

STANDARD

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

ORIGINAL COPY



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Tetra Tech- Midland

Date/ Time Received: 07/03/2018 09:41:00 AM

Work Order #: 591157

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:  Date: 07/03/2018
Katie Lowe

Checklist reviewed by:  Date: 07/05/2018
Kelsey Brooks