

SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	Tankless 35 Federal #1 Tank Battery				
Company:	COG Operating LLC				
Section, Township and Range	Unit D	Sec 35	T 22S	R 31E	
Lease Number:	API-30-015-28591				
County:	Eddy County				
GPS:	32.35303° N			103.75480° W	
Surface Owner:	Federal				
Mineral Owner:					
Directions:	From the intersection of Hwy 128 and Wipp Rd, travel north on Wipp Rd for 0.2mi, turn right onto Mills Ranch and travel east for 1.22mi. Turn left and travel north for 0.05miles, then turn right and travel northeast for 3.73 miles. Then turn left onto location.				

Release Data:

Date Released:	11/24/2013
Type Release:	Oil and Produced Water
Source of Contamination:	Gasket on Heater Treater Failed
Fluid Released:	3 bbls of Oil and 10 bbls of Produced Water
Fluids Recovered:	0 bbls of Oil and 0 bbls of Produced Water

Official Communication:

Name:	Robert McNeill		Ike Tavaréz
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		4000 N. Big Spring
	600 W. Illinois Ave.		Suite 401
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 682-4559
Fax:	(432) 684-7137		
Email:	rmcneill@conchoresources.com		ike.tavarez@tetrattech.com

Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	
WellHead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
Total Ranking Score:	0	

Acceptable Soil RRAL (mg/kg)

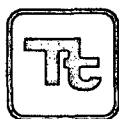
Benzene	Total BTEX	TPH
10	50	5,000

NM OIL CONSERVATION

ARTESIA DISTRICT

JUN 04 2014

RECEIVED



TETRA TECH

May 7, 2014

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811S. First Street
Artesia, New Mexico 88210

**Re: Work Plan for the COG Operating LLC., Tankless Federal 35 #1H
Tank Battery, Unit D, Section 35, Township 22 South, Range 31
East, Eddy County, New Mexico.**

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Tankless Federal 35 #1H Tank Battery located in Unit D, Section 35, Township 22 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.35303°, W 103.75480°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 24, 2013, and released approximately three (3) barrels of oil and ten (10) barrels of produced fluid from a heater treater due to a gasket failure from corrosion. To alleviate the problem, COG personnel replaced the gasket. Zero (0) barrels of standing fluids were recovered. The spill initiated inside the firewall affecting an area 35' x 40', then breached onto the tank battery pad affecting an area 40' X 75' and 10' X 60'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 35. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 100' below surface. The groundwater data is shown on Appendix B.

Tetra Tech

4000 North Big Spring, Suite 401 Midland, TX 79705

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On December 9, 2013, Tetra Tech personnel inspected and sampled the spill area. Six (6) auger holes (AH-1 through AH-6) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, only AH-4 exceeded the TPH RRAL at 0-1.0' and 1.0-1.5' below surface with a TPH concentration high of 6,176 mg/kg, but declined below the RRAL at 2.0'-2.5' below surface. Elevated chloride concentrations were detected in the areas of AH-2, AH-5 and AH-6. The area of AH-2 showed a shallow impact to the soils of 3,380 mg/kg at 0-1' and declined to <20.0 at 1-1.5' below surface. The areas of AH-5 and AH-6 showed a deeper impact to the soils, with AH-5 declining down to 434 mg/kg at 6-6.5' below surface. Auger hole (AH-6) was not vertically defined, with a bottom auger hole sample of 3,970 mg/kg at 7.0' below surface.



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Remedial Activities

On April 15, 2014, Tetra Tech began supervising the excavation of impacted materials as highlighted (green) on Table 1 and shown on Figure 4. Prior to excavating a backhoe trench was installed in the area of AH-6 to evaluate and define the chloride concentrations. Based on the results, the impacted areas showed chloride concentrations of 2,720 mg/kg at 6.0' and 720 mg/kg at 8.0' below surface. The area of AH-2 was excavated to a depth of approximately 1.0'; the area of AH-4 was excavated to a depth of approximately 2.0'; and the areas of AH-5 and AH-6 were excavated to a depth of approximately 6.0' below surface.

Approximately 352 yards of excavated soil was transported offsite for proper disposal and the areas will be backfilled with clean material to surface grade.

Conclusion

Based on the remedial actions taken, COG requests closure of the site. The Final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Clair Gonzales,
Geologist

cc: Robert McNeill - COG
cc: Mike Burton - BLM

Figures

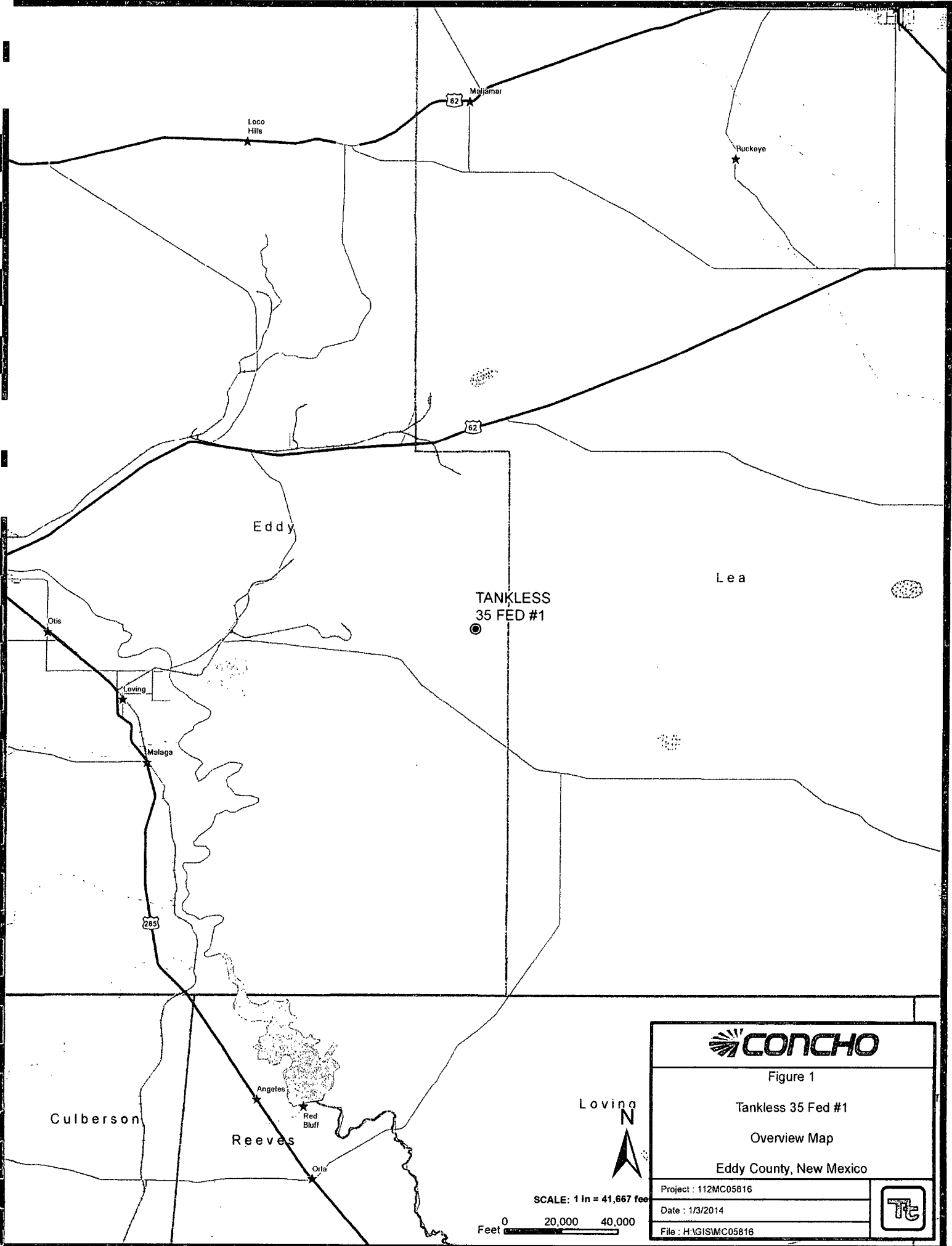


Figure 1

Tankless 35 Fed #1

Overview Map

Eddy County, New Mexico

Project : 112MC05816

Date : 1/3/2014

File : H:\GIS\MC05816



SCALE: 1 in = 41,667 feet

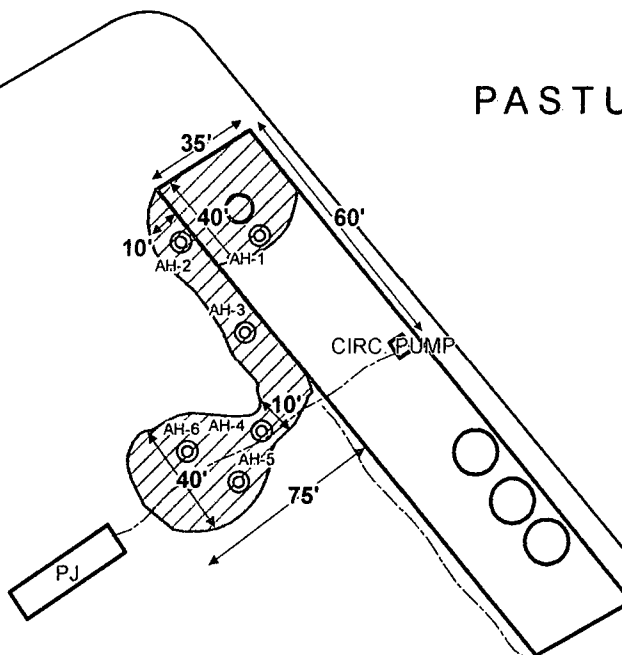
Feet 0 20,000 40,000



PASTURE

PASTURE

PAD



MILLS RANCH ROAD

PASTURE

EXPLANATION

- ⊙ AUGER HOLE SAMPLE LOCATIONS
- ▨ SPILL AREA

SCALE: 1 IN = 78 FEET

Feet 0 20 40



Figure 3

Tankless 35 Fed #1

Spill Assessment Map

Eddy County, New Mexico

Project : 112MC05816

Date : 1/3/2014

File : H:\GIS\MC05816



PASTURE

PASTURE

PAD

CIRC PUMP

MILLS RANCH ROAD

PASTURE

EXPLANATION

- ⊙ AUGER HOLE SAMPLE LOCATIONS
- ▨ SPILL AREA

SCALE: 1 IN = 78 FEET

Feet 0 20 40



Figure 3a

Tankless 35 Fed #1

Spill Assessment Map

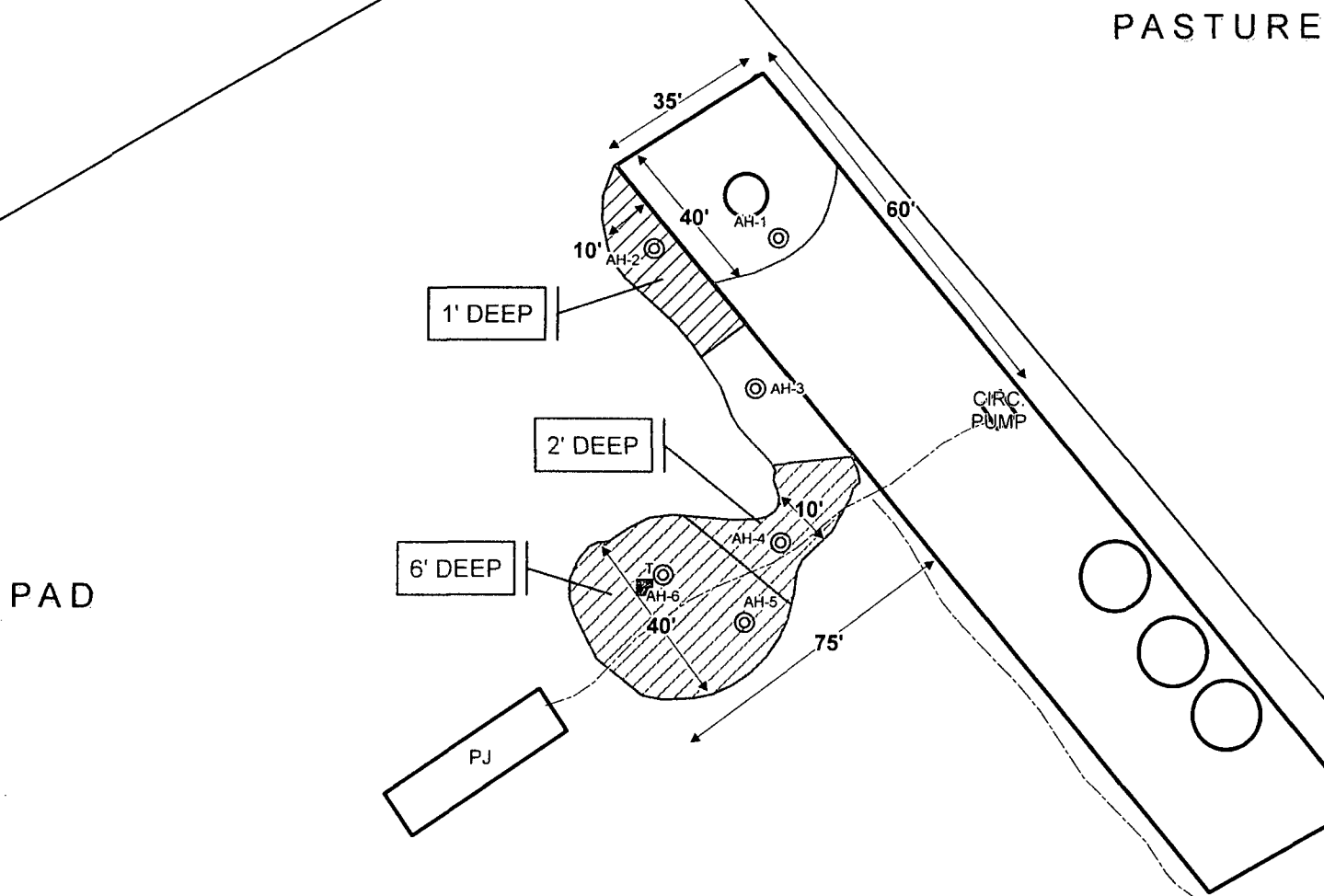
Eddy County, New Mexico

Project : 112MC05816

Date : 1/3/2014

File : H:\GIS\MC05816





EXPLANATION	
⊙	AUGER HOLE SAMPLE LOCATIONS
▣	TRENCH LOCATION
▨	EXCAVATION AREAS

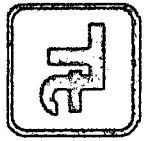
SCALE: 1 IN = 46 FEET
 Feet 0 20 40



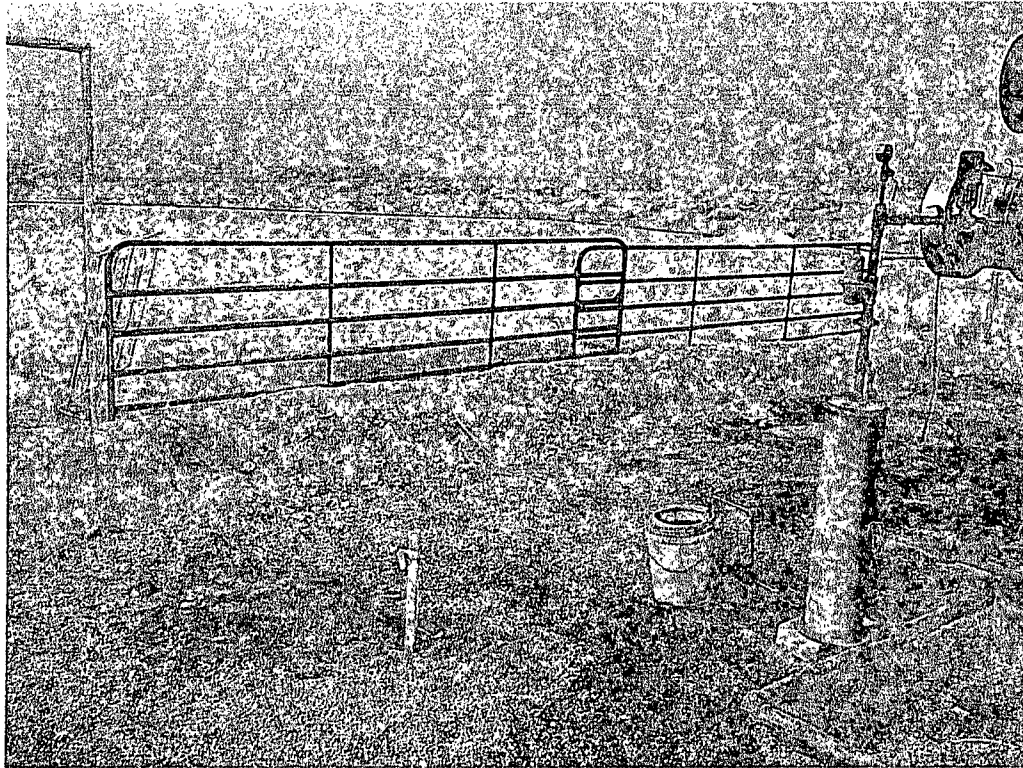
CONCHO	
Figure 4	
Tankless 35 Fed #1	
Excavation Areas & Depths Map	
Eddy County, New Mexico	
Project : 112MC05816	
Date : 05/07/2014	
File : H:\GIS\MC05816	

Photos

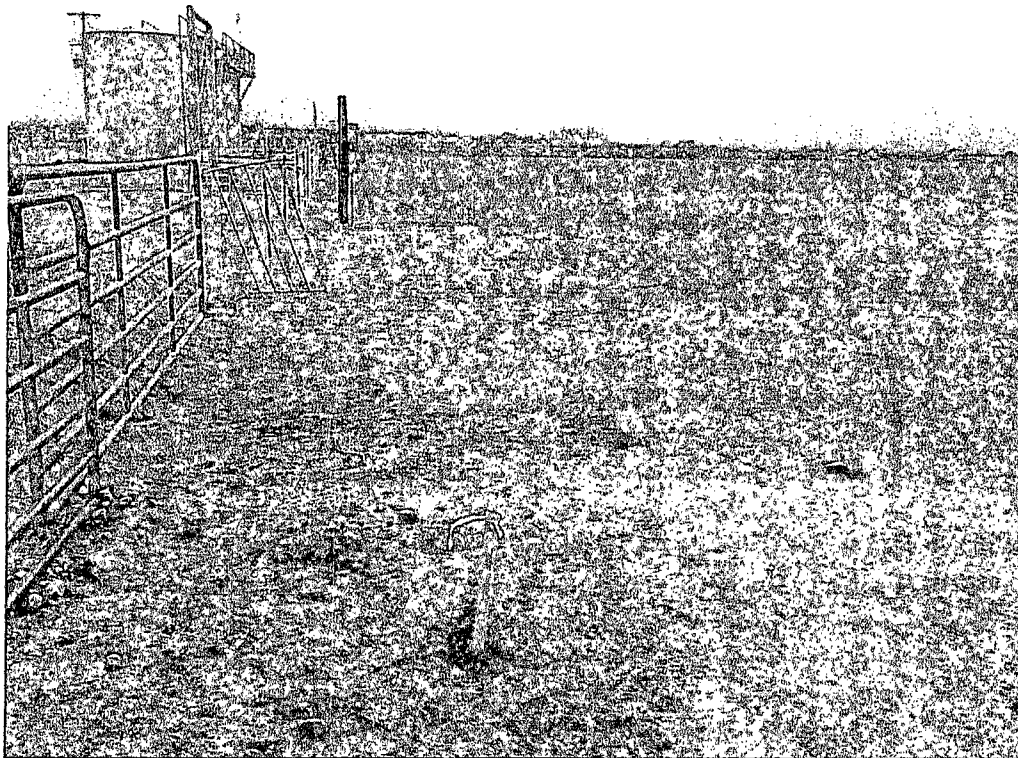
COG Operating LLC
Tankless Fed 35 #1H
Eddy County, New Mexico
Spill Assessment



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View West – AH-1 and AH-2

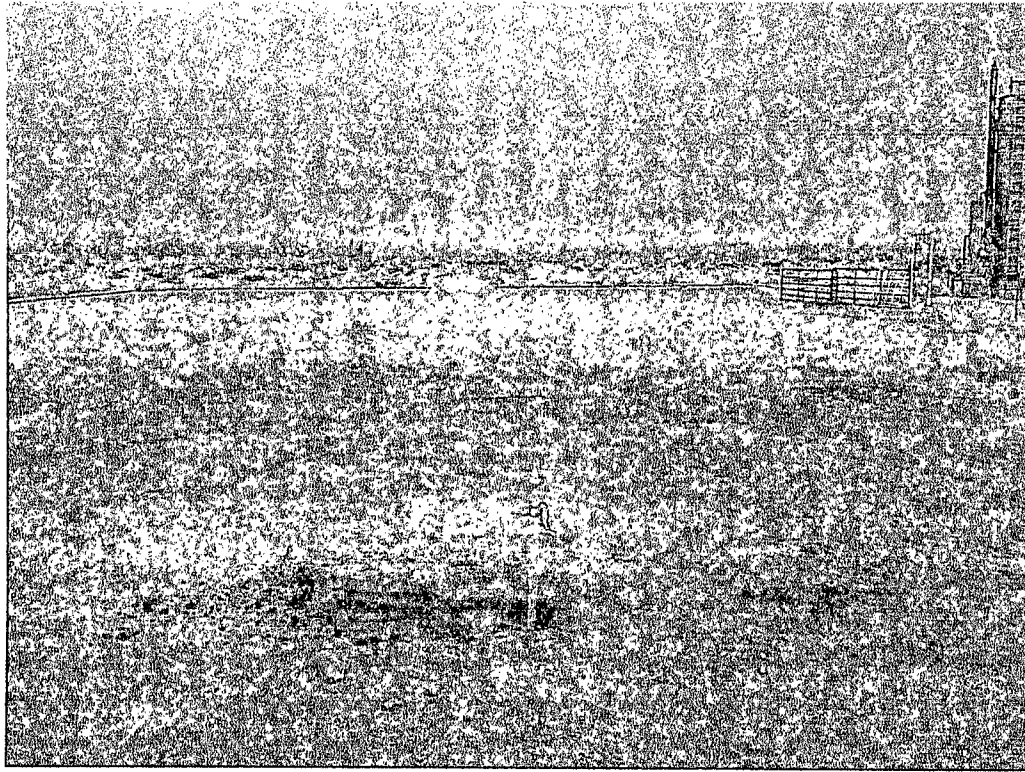


View South – AH-2, AH-3, AH-4, and AH-5

COG Operating LLC
Tankless Fed 35 #1H
Eddy County, New Mexico



TETRA TECH

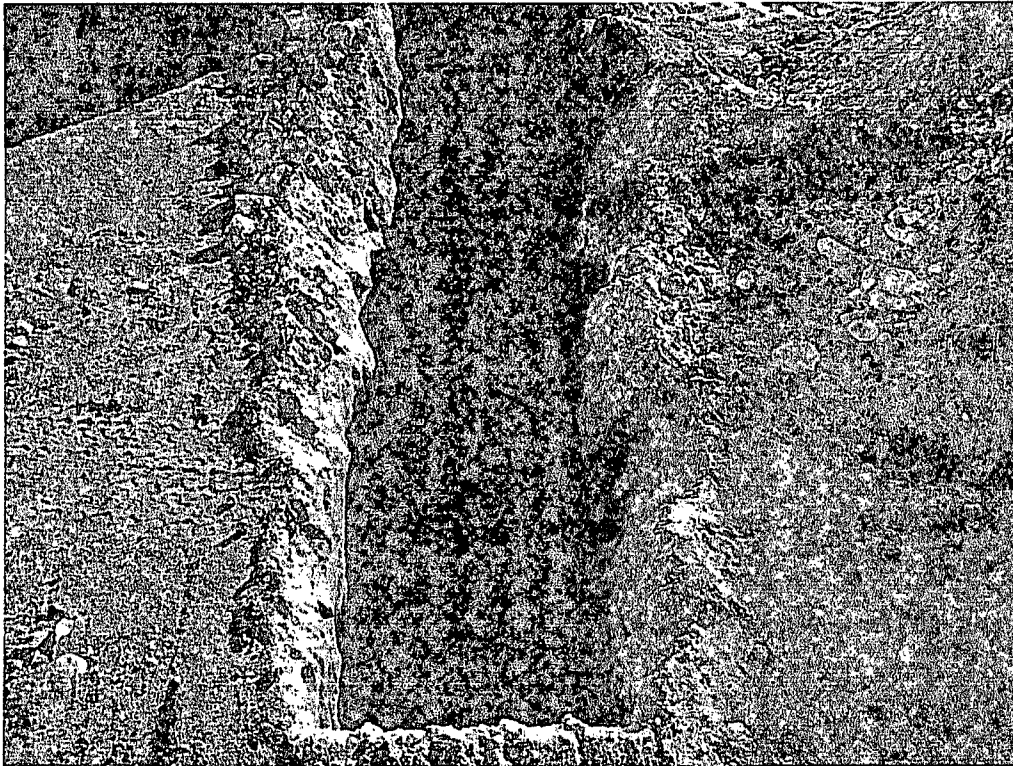


View North – AH-4, AH-5, and AH-6

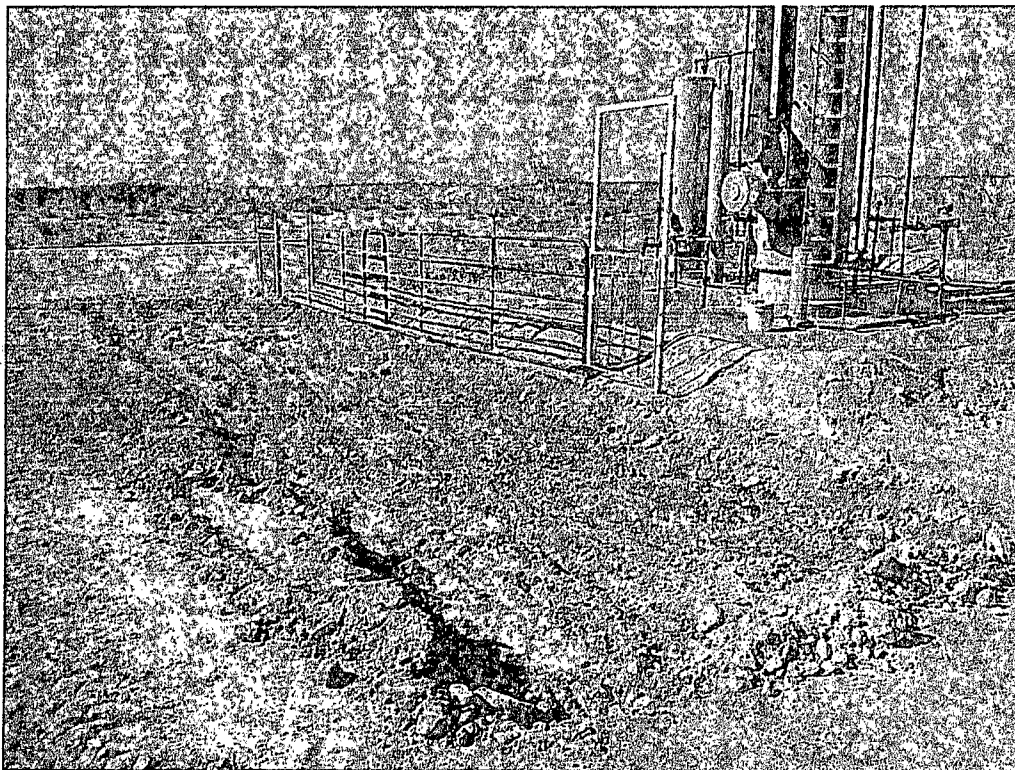
COG Operating LLC
Tankless Fed 35 #1H
Eddy County, New Mexico
Excavation



TETRA TECH



Area of T-1

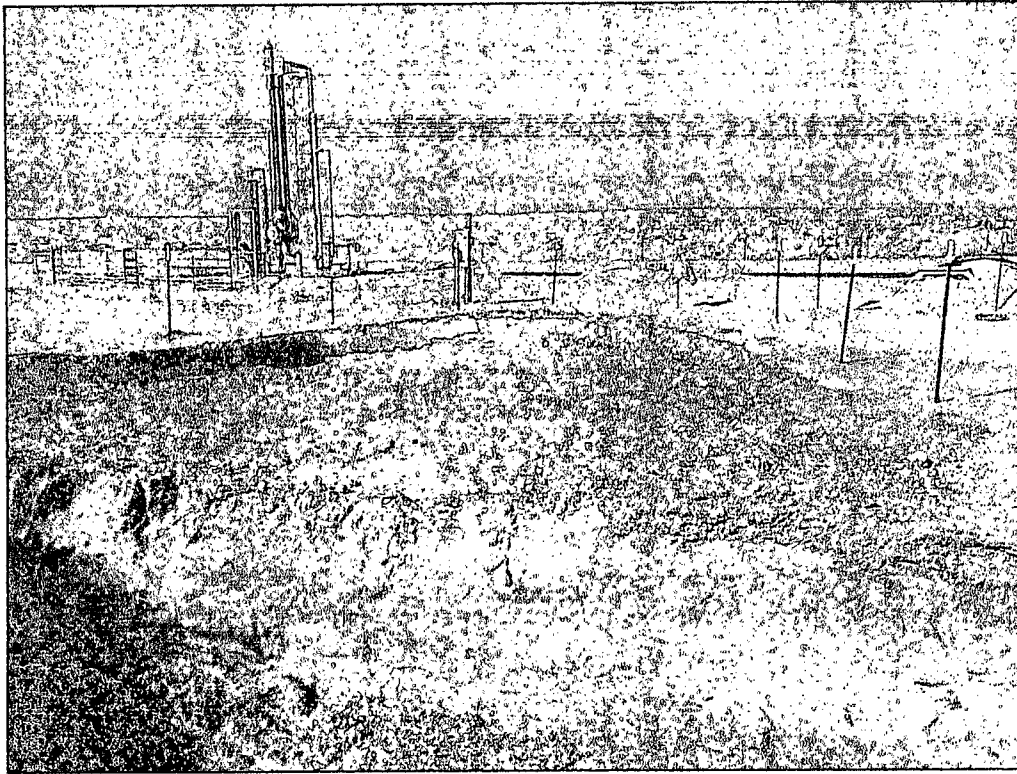


View North – Excavated area of AH-1

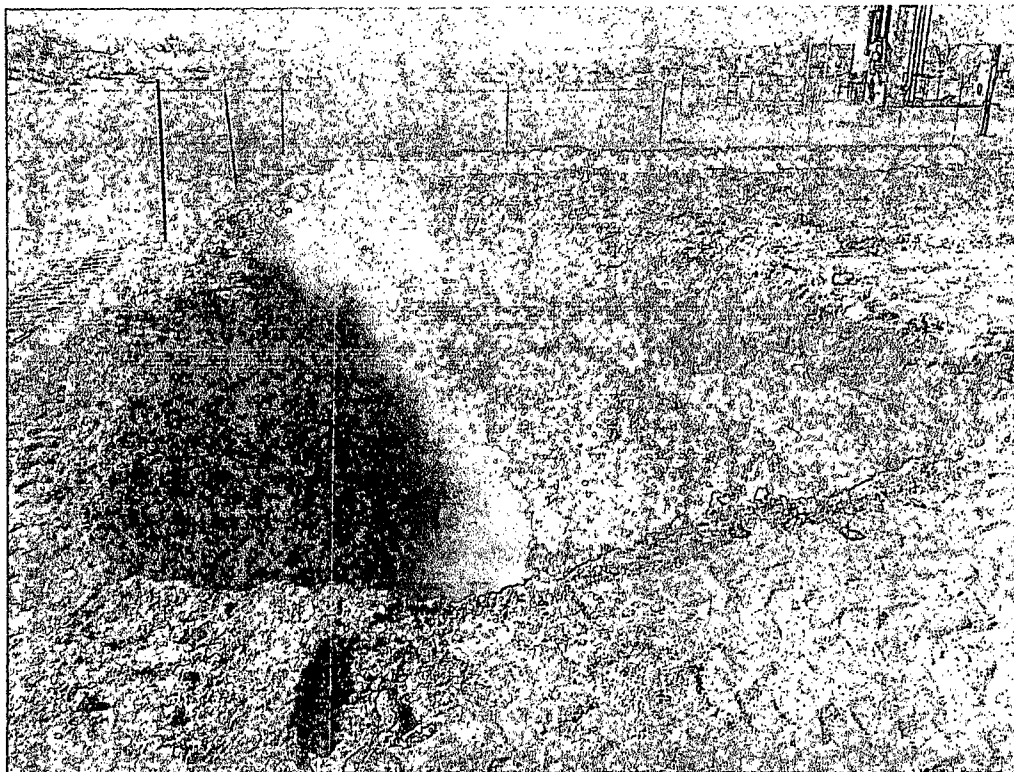
COG Operating LLC
Tankless Fed 35 #1H
Eddy County, New Mexico



TETRA TECH



View East –Excavated area of AH-4 and AH-5



View North – Excavated area of AH-6

Tables

Table 1
COG Operating LLC.
Tankless Fed 35 #1H
Eddy County, New Mexico

[illegible]

Table 1
COG Operating LLC.
Tankless Fed 35 #1H
Eddy County, New Mexico

[illegible]

Table 1
COG Operating LLC.
Tankless Fed 35 #1H
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-6	12/9/2013	0-1			X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	600
	"	1-1.5			X									2,850
	"	2-2.5			X									3,370
	"	3-3.5			X									4,840
	"	4-4.5			X									6,240
	"	5-5.5			X									4,760
	"	6-6.5			X									4,760
	"	7-7.5	-	X		-	-	-	-	-	-	-	-	3,970
AH-6 North Sidewall	4/16/2014	-	-	X		-	-	-	-	-	-	-	-	1,500
AH-6 South Sidewall	4/16/2014	-	-	X		-	-	-	-	-	-	-	-	384
AH-6 West Sidewall	4/16/2014	-	-	X		-	-	-	-	-	-	-	-	720
T-1	4/16/2014	0			X									5,120
	"	2			X									1,120
	"	4			X									3,960
	"	6			X									2,720
	"	8	-	X		-	-	-	-	-	-	-	-	720
	"	10	-	X		-	-	-	-	-	-	-	-	672

(-) Not Analyzed

(BEB) Below Excavation Bottom

Excavated Depth

Appendix A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003
Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Robert McNeill
Address	600 West Illinois Avenue, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Tankless 35 Federal #001	Facility Type	Tank Battery
Surface Owner	Federal	Mineral Owner	
		Lease No. (API#)	30-015-36784

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	35	22S	31E					Eddy

Latitude 32.35303 Longitude 103.75480

NATURE OF RELEASE

Type of Release	Oil and produced water	Volume of Release	3bbls of oil 10bbls of produced water	Volume Recovered	0bbls of oil 0bbls of produced water
Source of Release	Heater treater	Date and Hour of Occurrence	11-24-2013	Date and Hour of Discovery	11-20-2013 10:00a.m.
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

NM OIL CONSERVATION

If a Watercourse was Impacted, Describe Fully.*

ARTESIA DISTRICT

Describe Cause of Problem and Remedial Action Taken.*

JUN 04 2014

Gasket failed on heater treater due to corrosion. Replaced gasket to prevent future spills.

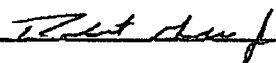
RECEIVED

Describe Area Affected and Cleanup Action Taken.*

Initially an estimated 3bbls of oil and 10bbls of produced water were released from a gasket that failed on a heater treater. We were unable to recover any fluids. The release was contained on location. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD for approval prior to any significant remediation work.

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.

OIL CONSERVATION DIVISION

Signature:			
Printed Name:	Robert Grubbs Jr.		
Title:	Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address:	rgrubbs@concho.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date:	11-27-2013	Phone:	432-661-6601

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company COG Operating LLC	Contact Robert McNeil	
Address 550 W. Texas, Suite 1300 Midland, Texas 79701	Telephone No. (432) 230-0077	
Facility Name Tankless 35 Federal #001	Facility Type Tank Battery	
Surface Owner: Federal	Mineral Owner	Lease No. (API #) 30-015-36784

LOCATION OF RELEASE

Unit Letter D	Section 35	Township 22S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude N 32.35303° Longitude W 103.75480°

NATURE OF RELEASE

Type of Release: Oil and produced water	Volume of Release 3 bbls oil 10 bbls produced water	Volume Recovered 0 bbls oil 0 bbls produced water
Source of Release: Heater Treater	Date and Hour of Occurrence 11/24/2013	Date and Hour of Discovery 11/24/2013 10:00 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Josh Russo	Date and Hour 3/15/10 4:59 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

NM OIL CONSERVATION

ARTESIA DISTRICT

JUN 04 2014

Describe Cause of Problem and Remedial Action Taken.*

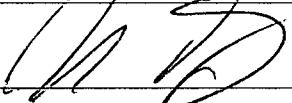
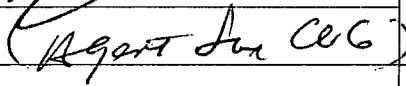
Gasket failed on heater treater due to corrosion. Replaced gasket to prevent future spills.

RECEIVED

Describe Area Affected and Cleanup Action Taken.*

Initially an estimated 3 bbls of oil and 10 bbls of produced water were released from a failed gasket on a heater treater. None of the fluid was recovered. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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: Ike Tavarez	Approved by District Supervisor: 		
Title: Project Manager	Approval Date:	Expiration Date:	
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 5-14-14	Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Tankless Fed 35 #1H
Eddy County, New Mexico

21 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

21 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

21 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36







22 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

23 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

-  New Mexico State Engineers Well Reports
-  USGS Well Reports
-  Geology and Groundwater Conditions in Southern Eddy, County, NM
-  NMOCD - Groundwater Data
-  Field water level
-  New Mexico Water and Infrastructure Data System

Appendix C

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: December 19, 2013

Work Order: 13121211



Project Location: Eddy Co, NM
Project Name: COG/Tankless Fed 35 #1H
Project Number: 112MC05816

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348623	AH-1 0-1'	soil	2013-12-10	00:00	2013-12-12
348624	AH-1 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348625	AH-1 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348626	AH-1 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348627	AH-1 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348628	AH-1 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348629	AH-1 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348630	AH-1 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348631	AH-1 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348632	AH-2 0-1'	soil	2013-12-10	00:00	2013-12-12
348633	AH-2 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348634	AH-2 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348635	AH-2 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348636	AH-2 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348637	AH-2 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348638	AH-2 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348639	AH-2 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348640	AH-2 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348641	AH-2 9-9.5'	soil	2013-12-10	00:00	2013-12-12
348642	AH-3 0-1'	soil	2013-12-10	00:00	2013-12-12
348643	AH-3 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348644	AH-3 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348645	AH-3 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348646	AH-3 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348647	AH-3 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348648	AH-3 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348649	AH-4 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348650	AH-4 0-1'	soil	2013-12-10	00:00	2013-12-12
348651	AH-4 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348652	AH-4 2-2.5'	soil	2013-12-10	00:00	2013-12-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348653	AH-4 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348654	AH-4 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348655	AH-4 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348656	AH-5 0-1'	soil	2013-12-10	00:00	2013-12-12
348657	AH-5 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348658	AH-5 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348659	AH-5 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348660	AH-5 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348661	AH-5 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348662	AH-5 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348663	AH-5 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348664	AH-5 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348665	AH-6 0-1'	soil	2013-12-10	00:00	2013-12-12
348666	AH-6 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348667	AH-6 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348668	AH-6 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348669	AH-6 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348670	AH-6 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348671	AH-6 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348672	AH-6 7-7.5'	soil	2013-12-10	00:00	2013-12-12

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
348623 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
348632 - AH-2 0-1'	0.110	5.35	5.64	24.7	2090	610
348633 - AH-2 1-1.5'					<50.0	4.34
348642 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
348650 - AH-4 0-1'	<0.100	<0.100	<0.100	<0.100	1180	26.2
348651 - AH-4 1-1.5'					6090	85.6
348652 - AH-4 2-2.5'					<50.0	<4.00
348656 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
348665 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00

Sample: 348623 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348624 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348625 - AH-1 2-2.5'

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296

This is only a summary. Please, refer to the complete report package for quality control data.

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348626 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348627 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348628 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348629 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		934	mg/Kg	4

Sample: 348630 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348631 - AH-1 8-8.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348632 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		3380	mg/Kg	4

Sample: 348633 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348634 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348635 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348636 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348637 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348638 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348639 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348640 - AH-2 8-8.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348641 - AH-2 9-9.5'

Param	Flag	Result	Units	RL
Chloride		119	mg/Kg	4

Sample: 348642 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		183	mg/Kg	4

Sample: 348643 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348644 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348645 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348646 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		29.8	mg/Kg	4

Sample: 348647 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348648 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348649 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		99.3	mg/Kg	4

Sample: 348650 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		283	mg/Kg	4

Sample: 348651 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		670	mg/Kg	4

Sample: 348652 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		69.5	mg/Kg	4

Sample: 348653 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		209	mg/Kg	4

Sample: 348654 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1250	mg/Kg	4

Sample: 348655 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		424	mg/Kg	4

Sample: 348656 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		1810	mg/Kg	4

Sample: 348657 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		1650	mg/Kg	4

Sample: 348658 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		1660	mg/Kg	4

Sample: 348659 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1170	mg/Kg	4

Sample: 348660 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		2340	mg/Kg	4

Sample: 348661 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		1750	mg/Kg	4

Sample: 348662 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		434	mg/Kg	4

Sample: 348663 - AH-5 7-7.5'

Param	Flag	Result	Units	RL
Chloride		120	mg/Kg	4

Sample: 348664 - AH-5 8-8.5'

Param	Flag	Result	Units	RL
Chloride		67.2	mg/Kg	4

Sample: 348665 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		600	mg/Kg	4

Sample: 348666 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2850	mg/Kg	4

Sample: 348667 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3370	mg/Kg	4

Sample: 348668 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		4840	mg/Kg	4

Sample: 348669 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		6240	mg/Kg	4

Sample: 348670 - AH-6 5-5.5'

Param	Flag	Result	Units	RL
Chloride		4760	mg/Kg	4

Sample: 348671 - AH-6 6-6.5'

Param	Flag	Result	Units	RL
Chloride		4760	mg/Kg	4

Sample: 348672 - AH-6 7-7.5'

Param	Flag	Result	Units	RL
Chloride		3970	mg/Kg	4



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 06, 2014

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: TANKLESS 35 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 04/30/14 9:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Coley D. Keene". The signature is fluid and cursive, with a long horizontal stroke at the end.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/30/2014	Sampling Date:	04/16/2014
Reported:	05/06/2014	Sampling Type:	Soil
Project Name:	TANKLESS 35 FEDERAL #1	Sampling Condition:	** (See Notes)
Project Number:	112MC05816	Sample Received By:	Jodi Henson
Project Location:	COG		

Sample ID: AH-2 NSW (H401296-01)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/06/2014	ND	400	100	400	0.00	

Sample ID: AH-2 SSW (H401296-02)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	05/06/2014	ND	400	100	400	0.00	

Sample ID: AH-2 WSW (H401296-03)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-4 NSW (H401296-04)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	05/06/2014	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

Received:	04/30/2014	Sampling Date:	04/16/2014
Reported:	05/06/2014	Sampling Type:	Soil
Project Name:	TANKLESS 35 FEDERAL #1	Sampling Condition:	** (See Notes)
Project Number:	112MC05816	Sample Received By:	Jodi Henson
Project Location:	COG		

Sample ID: AH-4 SSW (H401296-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-4 ESW (H401296-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-4 WSW (H401296-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-5 NSW (H401296-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	05/06/2014	ND	416	104	400	0.00	

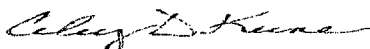
Sample ID: AH-5 SSW (H401296-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	05/06/2014	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

 Received: 04/30/2014
 Reported: 05/06/2014
 Project Name: TANKLESS 35 FEDERAL #1
 Project Number: 112MC05816
 Project Location: COG

 Sampling Date: 04/16/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: AH-5 ESW (H401296-10)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-6 NSW (H401296-11)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-6 SSW (H401296-12)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	05/06/2014	ND	416	104	400	0.00	

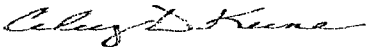
Sample ID: AH-6 WSW (H401296-13)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	05/06/2014	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

PAGE: _____

ANALYSIS REQUEST
(Circle or Specify Method No.)

H4D1296

CLIENT NAME:

COG

SITE MANAGER:

TKC Tavares

PROJECT NO.:

112MC05816

PROJECT NAME:

Tankless 35 Fed # 1

LAB I.D.
NUMBER

DATE
4/16/14

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/624

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 608/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Date:

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #:

HAND DELIVERED

UPS

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

17°C #54

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Page 6 of 7

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE:

ANALYSIS REQUEST
(Circle or Specify Method No.)

H401296

CLIENT NAME:

LOG

SITE MANAGER:

Mike Taberz

PROJECT NO:

112M05816

PROJECT NAME:

Tankless 35 Feet #1

LAB I.D. NUMBER

DATE TIME

MATRIX
COMP
GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHOD

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Vr Pd Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date: 4-30-14
Time: 11:55 AM

RECEIVED BY: (Signature)

Date: 4-30-14
Time: 6:45

SAMPLED BY: (Print & Initial)

Date: _____
Time: _____

RELINQUISHED BY: (Signature)

Date: _____
Time: _____

RECEIVED BY: (Signature)

Date: _____
Time: _____

SAMPLE SHIPPED BY: (Circle)

Date: _____
Time: _____

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

Date: _____
Time: _____

TETRA TECH CONTACT PERSON:

Date: _____
Time: _____

CITY:

STATE:

PHONE:

ZIP:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

TIME:

Date: _____
Time: _____

Results by:

Authorized:

Yes

No

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

April 17, 2014

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: TANKLESS 35 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 04/16/14 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

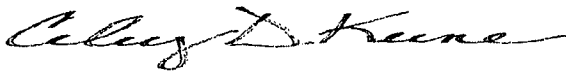
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

Received:	04/16/2014	Sampling Date:	04/16/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	TANKLESS 35 FEDERAL #1	Sampling Condition:	** (See Notes)
Project Number:	112MC05816	Sample Received By:	Jodi Henson
Project Location:	COG		

Sample ID: T-1 AH-6 0' (H401144-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5120	16.0	04/17/2014	ND	400	100	400	3.92	

Sample ID: T-1 AH-6 2' (H401144-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	04/17/2014	ND	400	100	400	3.92	

Sample ID: T-1 AH-6 4' (H401144-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3960	16.0	04/17/2014	ND	400	100	400	3.92	

Sample ID: T-1 AH-6 6' (H401144-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	04/17/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received: 04/16/2014
Reported: 04/17/2014
Project Name: TANKLESS 35 FEDERAL #1
Project Number: 112MC05816
Project Location: COG

Sampling Date: 04/16/2014
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: T-1 AH-6 8' (H401144-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	04/17/2014	ND	400	100	400	3.92	

Sample ID: T-1 AH-6 10' (H401144-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	04/17/2014	ND	400	100	400	3.92	

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

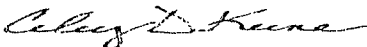
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

(432) 682-4559 • Fax (432) 682-3946

Hyd 1144

CLIENT NAME:

COG

SITE MANAGER:

THE MANAGER: Ike Tavaraz

PROJECT NO.:

11271005814

PROJECT NAME:

Tankless 35 Feeding #1

LAB I.D. NUMBER	DATE	TIME
--------------------	------	------

MATRIX
COMP.
GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO₃

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

PCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC,MS Vol. 8240/8260/624

GC.MS Seml. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

PAGE.

ANALYSIS REQUEST
(Circle or Specify Method No.)

Page 5 of 5

RELINQUISHED BY: (Signature) _____	Date: 5-16-74	RECEIVED BY: (Signature) _____	Date: 5-16-74
Time: 11:00 A.M.		Time: 11:05	
RELINQUISHED BY: (Signature) _____	Date: _____	RECEIVED BY: (Signature) _____	Date: _____
Time: _____		Time: _____	
RELINQUISHED BY: (Signature) _____	Date: _____	RECEIVED BY: (Signature) _____	Date: _____
Time: _____		Time: _____	
RECEIVING LABORATORY: _____	RECEIVED BY: (Signature) _____		
ADDRESS: _____			
CITY: _____ STATE: _____	ZIP: _____		
CONTACT: _____ PHONE: _____	DATE: _____ TIME: _____		
SAMPLE CONDITION WHEN RECEIVED: _____	REMARKS: _____		

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Summary Report

Ike Tavarez
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: December 19, 2013

Work Order: 13121211



Project Location: Eddy Co, NM
Project Name: COG/Tankless Fed 35 #1H
Project Number: 112MC05816

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348623	AH-1 0-1'	soil	2013-12-10	00:00	2013-12-12
348624	AH-1 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348625	AH-1 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348626	AH-1 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348627	AH-1 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348628	AH-1 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348629	AH-1 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348630	AH-1 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348631	AH-1 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348632	AH-2 0-1'	soil	2013-12-10	00:00	2013-12-12
348633	AH-2 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348634	AH-2 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348635	AH-2 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348636	AH-2 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348637	AH-2 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348638	AH-2 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348639	AH-2 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348640	AH-2 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348641	AH-2 9-9.5'	soil	2013-12-10	00:00	2013-12-12
348642	AH-3 0-1'	soil	2013-12-10	00:00	2013-12-12
348643	AH-3 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348644	AH-3 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348645	AH-3 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348646	AH-3 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348647	AH-3 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348648	AH-3 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348649	AH-4 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348650	AH-4 0-1'	soil	2013-12-10	00:00	2013-12-12
348651	AH-4 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348652	AH-4 2-2.5'	soil	2013-12-10	00:00	2013-12-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348653	AH-4 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348654	AH-4 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348655	AH-4 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348656	AH-5 0-1'	soil	2013-12-10	00:00	2013-12-12
348657	AH-5 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348658	AH-5 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348659	AH-5 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348660	AH-5 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348661	AH-5 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348662	AH-5 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348663	AH-5 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348664	AH-5 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348665	AH-6 0-1'	soil	2013-12-10	00:00	2013-12-12
348666	AH-6 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348667	AH-6 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348668	AH-6 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348669	AH-6 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348670	AH-6 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348671	AH-6 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348672	AH-6 7-7.5'	soil	2013-12-10	00:00	2013-12-12

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
348623 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
348632 - AH-2 0-1'	0.110	5.35	5.64	24.7	2090	610
348633 - AH-2 1-1.5'					<50.0	4.34
348642 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
348650 - AH-4 0-1'	<0.100	<0.100	<0.100	<0.100	1180	26.2
348651 - AH-4 1-1.5'					6090	85.6
348652 - AH-4 2-2.5'					<50.0	<4.00
348656 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
348665 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00

Sample: 348623 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348624 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348625 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348626 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348627 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348628 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348629 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		934	mg/Kg	4

Sample: 348630 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348631 - AH-1 8-8.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348632 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		3380	mg/Kg	4

Sample: 348633 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348634 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348635 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348636 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348637 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348638 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348639 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348640 - AH-2 8-8.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348641 - AH-2 9-9.5'

Param	Flag	Result	Units	RL
Chloride		119	mg/Kg	4

Sample: 348642 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		183	mg/Kg	4

Sample: 348643 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348644 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348645 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348646 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		29.8	mg/Kg	4

Sample: 348647 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348648 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 348649 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		99.3	mg/Kg	4

Sample: 348650 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		283	mg/Kg	4

Sample: 348651 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		670	mg/Kg	4

Sample: 348652 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		69.5	mg/Kg	4

Sample: 348653 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		209	mg/Kg	4

Sample: 348654 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1250	mg/Kg	4

Sample: 348655 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		424	mg/Kg	4

Sample: 348656 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		1810	mg/Kg	4

Sample: 348657 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		1650	mg/Kg	4

Sample: 348658 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		1660	mg/Kg	4

Sample: 348659 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1170	mg/Kg	4

Sample: 348660 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		2340	mg/Kg	4

Sample: 348661 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		1750	mg/Kg	4

Sample: 348662 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		434	mg/Kg	4

Sample: 348663 - AH-5 7-7.5'

Param	Flag	Result	Units	RL
Chloride		120	mg/Kg	4

Sample: 348664 - AH-5 8-8.5'

Param	Flag	Result	Units	RL
Chloride		67.2	mg/Kg	4

Sample: 348665 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		600	mg/Kg	4

Sample: 348666 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2850	mg/Kg	4

Sample: 348667 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3370	mg/Kg	4

Sample: 348668 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		4840	mg/Kg	4

Sample: 348669 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		6240	mg/Kg	4

Sample: 348670 - AH-6 5-5.5'

Param	Flag	Result	Units	RL
Chloride		4760	mg/Kg	4

Sample: 348671 - AH-6 6-6.5'

Param	Flag	Result	Units	RL
Chloride		4760	mg/Kg	4

Sample: 348672 - AH-6 7-7.5'

Param	Flag	Result	Units	RL
Chloride		3970	mg/Kg	4



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ike Tavaréz
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: December 19, 2013

Work Order: 13121211



Project Location: Eddy Co, NM
Project Name: COG/Tankless Fed 35 #1H
Project Number: 112MC05816

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
348623	AH-1 0-1'	soil	2013-12-10	00:00	2013-12-12
348624	AH-1 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348625	AH-1 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348626	AH-1 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348627	AH-1 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348628	AH-1 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348629	AH-1 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348630	AH-1 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348631	AH-1 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348632	AH-2 0-1'	soil	2013-12-10	00:00	2013-12-12
348633	AH-2 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348634	AH-2 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348635	AH-2 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348636	AH-2 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348637	AH-2 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348638	AH-2 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348639	AH-2 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348640	AH-2 8-8.5'	soil	2013-12-10	00:00	2013-12-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348641	AH-2 9-9.5'	soil	2013-12-10	00:00	2013-12-12
348642	AH-3 0-1'	soil	2013-12-10	00:00	2013-12-12
348643	AH-3 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348644	AH-3 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348645	AH-3 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348646	AH-3 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348647	AH-3 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348648	AH-3 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348649	AH-4 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348650	AH-4 0-1'	soil	2013-12-10	00:00	2013-12-12
348651	AH-4 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348652	AH-4 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348653	AH-4 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348654	AH-4 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348655	AH-4 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348656	AH-5 0-1'	soil	2013-12-10	00:00	2013-12-12
348657	AH-5 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348658	AH-5 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348659	AH-5 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348660	AH-5 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348661	AH-5 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348662	AH-5 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348663	AH-5 7-7.5'	soil	2013-12-10	00:00	2013-12-12
348664	AH-5 8-8.5'	soil	2013-12-10	00:00	2013-12-12
348665	AH-6 0-1'	soil	2013-12-10	00:00	2013-12-12
348666	AH-6 1-1.5'	soil	2013-12-10	00:00	2013-12-12
348667	AH-6 2-2.5'	soil	2013-12-10	00:00	2013-12-12
348668	AH-6 3-3.5'	soil	2013-12-10	00:00	2013-12-12
348669	AH-6 4-4.5'	soil	2013-12-10	00:00	2013-12-12
348670	AH-6 5-5.5'	soil	2013-12-10	00:00	2013-12-12
348671	AH-6 6-6.5'	soil	2013-12-10	00:00	2013-12-12
348672	AH-6 7-7.5'	soil	2013-12-10	00:00	2013-12-12

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 53 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 COG/Tankless Fed 35 #1H were received by TraceAnalysis, Inc. on 2013-12-12 and assigned to work order 13121211. Samples for work order 13121211 were received intact at a temperature of 2.4 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	91035	2013-12-13 at 08:57	107571	2013-12-14 at 03:00
Chloride (Titration)	SM 4500-Cl B	91087	2013-12-16 at 10:13	107639	2013-12-17 at 14:27
Chloride (Titration)	SM 4500-Cl B	91087	2013-12-16 at 10:13	107655	2013-12-18 at 10:13
Chloride (Titration)	SM 4500-Cl B	91087	2013-12-16 at 10:13	107664	2013-12-18 at 11:40
Chloride (Titration)	SM 4500-Cl B	91087	2013-12-16 at 10:13	107668	2013-12-18 at 12:19
Chloride (Titration)	SM 4500-Cl B	91087	2013-12-16 at 10:13	107674	2013-12-18 at 12:45
TPH DRO - NEW	S 8015 D	91038	2013-12-12 at 14:30	107532	2013-12-13 at 09:46
TPH DRO - NEW	S 8015 D	91069	2013-12-14 at 10:00	107577	2013-12-16 at 09:32
TPH GRO	S 8015 D	91035	2013-12-13 at 08:57	107572	2013-12-14 at 03:00
TPH GRO	S 8015 D	91149	2013-12-18 at 13:01	107711	2013-12-19 at 01:40

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 13121211 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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COG/Tankless Fed 35 #1H

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Analytical Report

Sample: 348623 - AH-1 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 107571

Prep Batch: 91035

Analytical Method: S 8021B

Date Analyzed: 2013-12-14

Sample Preparation: 2013-12-13

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL		Units	Dilution	RL
			Result				
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	u	1	<0.0200		mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Sample: 348623 - AH-1 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 107639

Prep Batch: 91087

Analytical Method: SM 4500-Cl B

Date Analyzed: 2013-12-17

Sample Preparation: 2013-12-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	Cert	RL		Units	Dilution	RL
			Result				
Chloride	u		<20.0		mg/Kg	5	4.00

Sample: 348623 - AH-1 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 107532

Prep Batch: 91038

Analytical Method: S 8015 D

Date Analyzed: 2013-12-13

Sample Preparation: 2013-12-12

Prep Method: N/A

Analyzed By: KC

Prepared By: KC

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

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			112	mg/Kg	1	100	112	70 - 130

Sample: 348623 - AH-1 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 107572
Prep Batch: 91035

Analytical Method: S 8015 D
Date Analyzed: 2013-12-14
Sample Preparation: 2013-12-13

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

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)			2.24	mg/Kg	1	2.00	112	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 348624 - AH-1 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 107639
Prep Batch: 91087

Analytical Method: SM 4500-Cl B
Date Analyzed: 2013-12-17
Sample Preparation: 2013-12-16

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348625 - AH-1 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 107639
Prep Batch: 91087

Analytical Method: SM 4500-Cl B
Date Analyzed: 2013-12-17
Sample Preparation: 2013-12-16

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

continued ...

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sample 348625 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348626 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	107639	Date Analyzed:	2013-12-17	Analyzed By:	AR
Prep Batch:	91087	Sample Preparation:	2013-12-16	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348627 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	107639	Date Analyzed:	2013-12-17	Analyzed By:	AR
Prep Batch:	91087	Sample Preparation:	2013-12-16	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348628 - AH-1 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	107639	Date Analyzed:	2013-12-17	Analyzed By:	AR
Prep Batch:	91087	Sample Preparation:	2013-12-16	Prepared By:	AR

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348629 - AH-1 6-6.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107639 Date Analyzed: 2013-12-17 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			934	mg/Kg	5	4.00

Sample: 348630 - AH-1 7-7.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107639 Date Analyzed: 2013-12-17 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348631 - AH-1 8-8.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107639 Date Analyzed: 2013-12-17 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

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Sample: 348632 - AH-2 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 107571
Prep Batch: 91035

Analytical Method: S 8021B
Date Analyzed: 2013-12-14
Sample Preparation: 2013-12-13

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.110	mg/Kg	5	0.0200
Toluene		1	5.35	mg/Kg	5	0.0200
Ethylbenzene		1	5.64	mg/Kg	5	0.0200
Xylene		1	24.7	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.50	mg/Kg	5	2.00	75	70 - 130
4-Bromofluorobenzene (4-BFB)	Q _{st}	Q _{st}	6.06	mg/Kg	5	2.00	303	70 - 130

Sample: 348632 - AH-2 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 107639
Prep Batch: 91087

Analytical Method: SM 4500-Cl B
Date Analyzed: 2013-12-17
Sample Preparation: 2013-12-16

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3380	mg/Kg	5	4.00

Sample: 348632 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 107532
Prep Batch: 91038

Analytical Method: S 8015 D
Date Analyzed: 2013-12-13
Sample Preparation: 2013-12-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	2090	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{st}	Q _{st}	217	mg/Kg	1	100	217	70 - 130

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Sample: 348632 - AH-2 0-1'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 107572

Prep Batch: 91035

Analytical Method: S 8015 D

Date Analyzed: 2013-12-14

Sample Preparation: 2013-12-13

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	610	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	5	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)	Q _{NT}	Q _{NT}	18.0	mg/Kg	5	2.00	900	70 - 130

Sample: 348633 - AH-2 1-1.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 107655

Prep Batch: 91087

Analytical Method: SM 4500-Cl B

Date Analyzed: 2013-12-18

Sample Preparation: 2013-12-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348633 - AH-2 1-1.5'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 107577

Prep Batch: 91069

Analytical Method: S 8015 D

Date Analyzed: 2013-12-16

Sample Preparation: 2013-12-14

Prep Method: N/A

Analyzed By: KC

Prepared By: KC

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			109	mg/Kg	1	100	109	70 - 130

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Sample: 348633 - AH-2 1-1.5'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2013-12-14	Analyzed By:	AK
QC Batch:	107572	Sample Preparation:	2013-12-13	Prepared By:	AK
Prep Batch:	91035				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	4.34	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	70 - 130
4-Bromofluorobenzene (4-BFB)			2.38	mg/Kg	1	2.00	119	70 - 130

Sample: 348634 - AH-2 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107655	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348635 - AH-2 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107655	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

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Sample: 348636 - AH-2 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107655	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348637 - AH-2 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107655	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348638 - AH-2 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107655	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348639 - AH-2 7-7.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107655	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348640 - AH-2 8-8.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107655 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348641 - AH-2 9-9.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107655 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			119	mg/Kg	5	4.00

Sample: 348642 - AH-3 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 107571 Date Analyzed: 2013-12-14 Analyzed By: AK
Prep Batch: 91035 Sample Preparation: 2013-12-13 Prepared By: AK

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

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	u	i	<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	70 - 130
4-Bromofluorobenzene (4-BFB)			1.74	mg/Kg	1	2.00	87	70 - 130

Sample: 348642 - AH-3 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 107655

Prep Batch: 91087

Analytical Method: SM 4500-Cl B

Date Analyzed: 2013-12-18

Sample Preparation: 2013-12-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			183	mg/Kg	5	4.00

Sample: 348642 - AH-3 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 107532

Prep Batch: 91038

Analytical Method: S 8015 D

Date Analyzed: 2013-12-13

Sample Preparation: 2013-12-12

Prep Method: N/A

Analyzed By: KC

Prepared By: KC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	ub	i	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			110	mg/Kg	1	100	110	70 - 130

Sample: 348642 - AH-3 0-1'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 107572

Prep Batch: 91035

Analytical Method: S 8015 D

Date Analyzed: 2013-12-14

Sample Preparation: 2013-12-13

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

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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)			2.29	mg/Kg	1	2.00	114	70 - 130
4-Bromofluorobenzene (4-BFB)			2.40	mg/Kg	1	2.00	120	70 - 130

Sample: 348643 - AH-3 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348644 - AH-3 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348645 - AH-3 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348646 - AH-3 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			29.8	mg/Kg	5	4.00

Sample: 348647 - AH-3 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 348648 - AH-3 6-6.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

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Sample: 348649 - AH-4 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107664	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			99.3	mg/Kg	5	4.00

Sample: 348650 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2013-12-14	Analyzed By:	AK
QC Batch:	107571	Sample Preparation:	2013-12-13	Prepared By:	AK
Prep Batch:	91035				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.100	mg/Kg	5	0.0200
Toluene	u	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene	u	1	<0.100	mg/Kg	5	0.0200
Xylene	u	1	<0.100	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.58	mg/Kg	5	2.00	79	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	5	2.00	98	70 - 130

Sample: 348650 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107664	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			283	mg/Kg	5	4.00

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Sample: 348650 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2013-12-16	Analyzed By:	KC
QC Batch:	107577	Sample Preparation:	2013-12-14	Prepared By:	KC
Prep Batch:	91069				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	1180	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	159	mg/Kg	1	100	159	70 - 130

Sample: 348650 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2013-12-14	Analyzed By:	AK
QC Batch:	107572	Sample Preparation:	2013-12-13	Prepared By:	AK
Prep Batch:	91035				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	26.2	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.21	mg/Kg	5	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)	Q _{sr}	Q _{sr}	3.04	mg/Kg	5	2.00	152	70 - 130

Sample: 348651 - AH-4 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107664	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			670	mg/Kg	5	4.00

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Sample: 348651 - AH-4 1-1.5'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2013-12-16	Analyzed By:	KC
QC Batch:	107577	Sample Preparation:	2013-12-14	Prepared By:	KC
Prep Batch:	91069				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	6090	mg/Kg	5	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{SR}	Q _{SR}	402	mg/Kg	5	100	402	70 - 130

Sample: 348651 - AH-4 1-1.5'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2013-12-14	Analyzed By:	AK
QC Batch:	107572	Sample Preparation:	2013-12-13	Prepared By:	AK
Prep Batch:	91035				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	85.6	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.18	mg/Kg	5	2.00	109	70 - 130
4-Bromofluorobenzene (4-BFB)	Q _{SR}	Q _{SR}	5.38	mg/Kg	5	2.00	269	70 - 130

Sample: 348652 - AH-4 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107664	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			69.5	mg/Kg	5	4.00

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Sample: 348652 - AH-4 2-2.5'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2013-12-16	Analyzed By:	KC
QC Batch:	107577	Sample Preparation:	2013-12-14	Prepared By:	KC
Prep Batch:	91069				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		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: 348652 - AH-4 2-2.5'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2013-12-19	Analyzed By:	AK
QC Batch:	107711	Sample Preparation:	2013-12-18	Prepared By:	AK
Prep Batch:	91149				

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)			2.19	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			2.12	mg/Kg	1	2.00	106	70 - 130

Sample: 348653 - AH-4 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107668	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			209	mg/Kg	5	4.00

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Sample: 348654 - AH-4 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107668 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1250	mg/Kg	5	4.00

Sample: 348655 - AH-4 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107668 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			424	mg/Kg	5	4.00

Sample: 348656 - AH-5 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 107571 Date Analyzed: 2013-12-14 Analyzed By: AK
Prep Batch: 91035 Sample Preparation: 2013-12-13 Prepared By: AK

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	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.54	mg/Kg	1	2.00	77	70 - 130
4-Bromofluorobenzene (4-BFB)			1.61	mg/Kg	1	2.00	80	70 - 130

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Sample: 348656 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107668	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1810	mg/Kg	10	4.00

Sample: 348656 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2013-12-16	Analyzed By:	KC
QC Batch:	107577	Sample Preparation:	2013-12-14	Prepared By:	KC
Prep Batch:	91069				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		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: 348656 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2013-12-14	Analyzed By:	AK
QC Batch:	107572	Sample Preparation:	2013-12-13	Prepared By:	AK
Prep Batch:	91035				

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)			2.07	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130

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Sample: 348657 - AH-5 1-1.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	107668	Date Analyzed:	2013-12-18
Prep Batch:	91087	Sample Preparation:	2013-12-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1650	mg/Kg	10	4.00

Sample: 348658 - AH-5 2-2.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	107668	Date Analyzed:	2013-12-18
Prep Batch:	91087	Sample Preparation:	2013-12-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1660	mg/Kg	10	4.00

Sample: 348659 - AH-5 3-3.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	107668	Date Analyzed:	2013-12-18
Prep Batch:	91087	Sample Preparation:	2013-12-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1170	mg/Kg	10	4.00

Sample: 348660 - AH-5 4-4.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	107668	Date Analyzed:	2013-12-18
Prep Batch:	91087	Sample Preparation:	2013-12-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			2340	mg/Kg	10	4.00

Sample: 348661 - AH-5 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107668 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1750	mg/Kg	10	4.00

Sample: 348662 - AH-5 6-6.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107668 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			434	mg/Kg	5	4.00

Sample: 348663 - AH-5 7-7.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107674 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			120	mg/Kg	5	4.00

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Sample: 348664 - AH-5 8-8.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107674 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			67.2	mg/Kg	5	4.00

Sample: 348665 - AH-6 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 107571 Date Analyzed: 2013-12-14 Analyzed By: AK
Prep Batch: 91035 Sample Preparation: 2013-12-13 Prepared By: AK

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	u	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.62	mg/Kg	1	2.00	81	70 - 130
4-Bromofluorobenzene (4-BFB)			1.59	mg/Kg	1	2.00	80	70 - 130

Sample: 348665 - AH-6 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 107674 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 Sample Preparation: 2013-12-16 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			600	mg/Kg	5	4.00

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Sample: 348665 - AH-6 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 107577
Prep Batch: 91069

Analytical Method: S 8015 D
Date Analyzed: 2013-12-16
Sample Preparation: 2013-12-14

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	u	i	<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: 348665 - AH-6 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 107572
Prep Batch: 91035

Analytical Method: S 8015 D
Date Analyzed: 2013-12-14
Sample Preparation: 2013-12-13

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.17	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Sample: 348666 - AH-6 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 107674
Prep Batch: 91087

Analytical Method: SM 4500-Cl B
Date Analyzed: 2013-12-18
Sample Preparation: 2013-12-16

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			2850	mg/Kg	10	4.00

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Sample: 348667 - AH-6 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107674	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3370	mg/Kg	10	4.00

Sample: 348668 - AH-6 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107674	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4840	mg/Kg	10	4.00

Sample: 348669 - AH-6 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107674	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			6240	mg/Kg	10	4.00

Sample: 348670 - AH-6 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2013-12-18	Analyzed By:	AR
QC Batch:	107674	Sample Preparation:	2013-12-16	Prepared By:	AR
Prep Batch:	91087				

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4760	mg/Kg	10	4.00

Sample: 348671 - AH-6 6-6.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 107674
Prep Batch: 91087

Analytical Method: SM 4500-Cl B
Date Analyzed: 2013-12-18
Sample Preparation: 2013-12-16

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4760	mg/Kg	10	4.00

Sample: 348672 - AH-6 7-7.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 107674
Prep Batch: 91087

Analytical Method: SM 4500-Cl B
Date Analyzed: 2013-12-18
Sample Preparation: 2013-12-16

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3970	mg/Kg	10	4.00

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Method Blanks

Method Blank (1) QC Batch: 107532

QC Batch: 107532
Prep Batch: 91038

Date Analyzed: 2013-12-13
QC Preparation: 2013-12-12

Analyzed By: KC
Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	7.10	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			110	mg/Kg	1	100	110	88.3 - 126.1

Method Blank (1) QC Batch: 107571

QC Batch: 107571
Prep Batch: 91035

Date Analyzed: 2013-12-14
QC Preparation: 2013-12-13

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.54	mg/Kg	1	2.00	77	70 - 130

Method Blank (1) QC Batch: 107572

QC Batch: 107572
Prep Batch: 91035

Date Analyzed: 2013-12-14
QC Preparation: 2013-12-13

Analyzed By: AK
Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.22	mg/Kg	1	2.00	111	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

Method Blank (1) QC Batch: 107577

QC Batch: 107577
Prep Batch: 91069

Date Analyzed: 2013-12-16
QC Preparation: 2013-12-14

Analyzed By: KC
Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<6.88	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			113	mg/Kg	1	100	113	88.3 - 126.1

Method Blank (1) QC Batch: 107639

QC Batch: 107639
Prep Batch: 91087

Date Analyzed: 2013-12-17
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 107655

QC Batch: 107655
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 107664

QC Batch: 107664 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 QC Preparation: 2013-12-16 Prepared By: AR

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

Method Blank (1) QC Batch: 107668

QC Batch: 107668 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 QC Preparation: 2013-12-16 Prepared By: AR

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

Method Blank (1) QC Batch: 107674

QC Batch: 107674 Date Analyzed: 2013-12-18 Analyzed By: AR
Prep Batch: 91087 QC Preparation: 2013-12-16 Prepared By: AR

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

Method Blank (1) QC Batch: 107711

QC Batch: 107711 Date Analyzed: 2013-12-19 Analyzed By: AK
Prep Batch: 91149 QC Preparation: 2013-12-18 Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.19	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 107532
Prep Batch: 91038

Date Analyzed: 2013-12-13
QC Preparation: 2013-12-12

Analyzed By: KC
Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	241	mg/Kg	1	250	7.1	94	79.4 - 120.1

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	239	mg/Kg	1	250	7.1	93	79.4 - 120.1	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
n-Tricosane	112	111	mg/Kg	1	100	112	111	92.9 - 137.7

Laboratory Control Spike (LCS-1)

QC Batch: 107571
Prep Batch: 91035

Date Analyzed: 2013-12-14
QC Preparation: 2013-12-13

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.66	mg/Kg	1	2.00	<0.00533	83	70 - 130
Toluene		1	1.71	mg/Kg	1	2.00	<0.00645	86	70 - 130
Ethylbenzene		1	1.78	mg/Kg	1	2.00	<0.0116	89	70 - 130
Xylene		1	5.35	mg/Kg	1	6.00	<0.00874	89	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		1	1.67	mg/Kg	1	2.00	<0.00533	84	70 - 130	0	20
Toluene		1	1.72	mg/Kg	1	2.00	<0.00645	86	70 - 130	0	20
Ethylbenzene		1	1.76	mg/Kg	1	2.00	<0.0116	88	70 - 130	1	20
Xylene		1	5.30	mg/Kg	1	6.00	<0.00874	88	70 - 130	1	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)	1.68	1.65	mg/Kg	1	2.00	84	82	70 - 130
4-Bromofluorobenzene (4-BFB)	1.62	1.56	mg/Kg	1	2.00	81	78	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 107572
Prep Batch: 91035

Date Analyzed: 2013-12-14
QC Preparation: 2013-12-13

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	15.5	mg/Kg	1	20.0	<2.32	78	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		1	15.6	mg/Kg	1	20.0	<2.32	78	70 - 130	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)	2.12	2.13	mg/Kg	1	2.00	106	106	70 - 130
4-Bromofluorobenzene (4-BFB)	2.22	2.28	mg/Kg	1	2.00	111	114	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 107577
Prep Batch: 91069

Date Analyzed: 2013-12-16
QC Preparation: 2013-12-14

Analyzed By: KC
Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	236	mg/Kg	1	250	<6.88	94	79.4 - 120.1

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	234	mg/Kg	1	250	<6.88	94	79.4 - 120.1	1	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
n-Tricosane	109	109	mg/Kg	1	100	109	109	92.9 - 137.7

Laboratory Control Spike (LCS-1)

QC Batch: 107639
Prep Batch: 91087

Date Analyzed: 2013-12-17
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2470	mg/Kg	1	2500	<3.85	99	89.7 - 115.9

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			2580	mg/Kg	1	2500	<3.85	103	89.7 - 115.9	4	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: 107655
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2400	mg/Kg	1	2500	<3.85	96	89.7 - 115.9

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			2460	mg/Kg	1	2500	<3.85	98	89.7 - 115.9	2	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: 107664
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

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Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2680	mg/Kg	1	2500	<3.85	107	89.7 - 115.9

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	1	2500	<3.85	104	89.7 - 115.9	3	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: 107668
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2770	mg/Kg	1	2500	<3.85	111	89.7 - 115.9

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			2670	mg/Kg	1	2500	<3.85	107	89.7 - 115.9	4	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: 107674
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2710	mg/Kg	1	2500	<3.85	108	89.7 - 115.9

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			2630	mg/Kg	1	2500	<3.85	105	89.7 - 115.9	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: 107711
Prep Batch: 91149

Date Analyzed: 2013-12-19
QC Preparation: 2013-12-18

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.2	mg/Kg	1	20.0	<2.32	81	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		1	16.1	mg/Kg	1	20.0	<2.32	80	70 - 130	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)	2.24	2.15	mg/Kg	1	2.00	112	108	70 - 130
4-Bromofluorobenzene (4-BFB)	2.32	2.45	mg/Kg	1	2.00	116	122	70 - 130

Matrix Spike (MS-1) Spiked Sample: 348553

QC Batch: 107532
Prep Batch: 91038

Date Analyzed: 2013-12-13
QC Preparation: 2013-12-12

Analyzed By: KC
Prepared By: KC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	236	mg/Kg	1	250	<6.88	94	64.8 - 149.9

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		1	233	mg/Kg	1	250	<6.88	93	64.8 - 149.9	1	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	117	116	mg/Kg	1	100	117	116	85.4 - 147.7

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Matrix Spike (MS-1) Spiked Sample: 348553

QC Batch: 107571
Prep Batch: 91035

Date Analyzed: 2013-12-14
QC Preparation: 2013-12-13

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.60	mg/Kg	1	2.00	<0.00533	80	70 - 130
Toluene		1	1.68	mg/Kg	1	2.00	<0.00645	84	70 - 130
Ethylbenzene		1	1.76	mg/Kg	1	2.00	<0.0116	88	70 - 130
Xylene		1	5.28	mg/Kg	1	6.00	<0.00874	88	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		1	1.62	mg/Kg	1	2.00	<0.00533	81	70 - 130	1	20
Toluene		1	1.74	mg/Kg	1	2.00	<0.00645	87	70 - 130	4	20
Ethylbenzene		1	1.80	mg/Kg	1	2.00	<0.0116	90	70 - 130	2	20
Xylene		1	5.42	mg/Kg	1	6.00	<0.00874	90	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)	1.65	1.65	mg/Kg	1	2	82	82	70 - 130
4-Bromofluorobenzene (4-BFB)	1.65	1.67	mg/Kg	1	2	82	84	70 - 130

Matrix Spike (MS-1) Spiked Sample: 348553

QC Batch: 107572
Prep Batch: 91035

Date Analyzed: 2013-12-14
QC Preparation: 2013-12-13

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	14.7	mg/Kg	1	20.0	<2.32	74	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		1	15.5	mg/Kg	1	20.0	<2.32	78	70 - 130	5	20

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

continued ...

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matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.05	2.12	mg/Kg	1	2	102	106	70 - 130
4-Bromofluorobenzene (4-BFB)	2.11	2.16	mg/Kg	1	2	106	108	70 - 130

Matrix Spike (MS-1) Spiked Sample: 348633

QC Batch: 107577
Prep Batch: 91069

Date Analyzed: 2013-12-16
QC Preparation: 2013-12-14

Analyzed By: KC
Prepared By: KC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		i	228	mg/Kg	1	250	45.2	73	64.8 - 149.9

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		i	231	mg/Kg	1	250	45.2	74	64.8 - 149.9	1	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	106	105	mg/Kg	1	100	106	105	85.4 - 147.7

Matrix Spike (MS-1) Spiked Sample: 348632

QC Batch: 107639
Prep Batch: 91087

Date Analyzed: 2013-12-17
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6130	mg/Kg	5	2500	3380	110	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			6340	mg/Kg	5	2500	3380	118	78.9 - 121	3	20

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

Matrix Spike (MS-1) Spiked Sample: 348642

QC Batch: 107655
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2680	mg/Kg	5	2500	183	100	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			2840	mg/Kg	5	2500	183	106	78.9 - 121	6	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: 348652

QC Batch: 107664
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2640	mg/Kg	5	2500	69.5	103	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			2720	mg/Kg	5	2500	69.5	106	78.9 - 121	3	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: 348662

QC Batch: 107668
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3210	mg/Kg	5	2500	434	111	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			3410	mg/Kg	5	2500	434	119	78.9 - 121	6	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: 348672

QC Batch: 107674
Prep Batch: 91087

Date Analyzed: 2013-12-18
QC Preparation: 2013-12-16

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6590	mg/Kg	10	2500	3970	105	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			6380	mg/Kg	10	2500	3970	96	78.9 - 121	3	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:

QC Batch: 107711
Prep Batch: 91149

Date Analyzed: 2013-12-19
QC Preparation: 2013-12-18

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	14.2	mg/Kg	1	20.0	<2.32	71	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		1	14.8	mg/Kg	1	20.0	<2.32	74	70 - 130	4	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)	2.06	1.92	mg/Kg	1	2	103	96	70 - 130
4-Bromofluorobenzene (4-BFB)	2.14	2.21	ug/Kg	1	2	107	110	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 107532

Date Analyzed: 2013-12-13

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	229	92	80 - 120	2013-12-13

Standard (CCV-2)

QC Batch: 107532

Date Analyzed: 2013-12-13

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	236	94	80 - 120	2013-12-13

Standard (CCV-3)

QC Batch: 107532

Date Analyzed: 2013-12-13

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	250	100	80 - 120	2013-12-13

Standard (CCV-1)

QC Batch: 107571

Date Analyzed: 2013-12-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0917	92	80 - 120	2013-12-14
Toluene		1	mg/kg	0.100	0.0908	91	80 - 120	2013-12-14

continued ...

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standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		1	mg/kg	0.100	0.0893	89	80 - 120	2013-12-14
Xylene		1	mg/kg	0.300	0.269	90	80 - 120	2013-12-14

Standard (CCV-2)

QC Batch: 107571

Date Analyzed: 2013-12-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0814	81	80 - 120	2013-12-14
Toluene		1	mg/kg	0.100	0.0883	88	80 - 120	2013-12-14
Ethylbenzene		1	mg/kg	0.100	0.0875	88	80 - 120	2013-12-14
Xylene		1	mg/kg	0.300	0.263	88	80 - 120	2013-12-14

Standard (CCV-3)

QC Batch: 107571

Date Analyzed: 2013-12-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0887	89	80 - 120	2013-12-14
Toluene		1	mg/kg	0.100	0.0891	89	80 - 120	2013-12-14
Ethylbenzene		1	mg/kg	0.100	0.0864	86	80 - 120	2013-12-14
Xylene		1	mg/kg	0.300	0.261	87	80 - 120	2013-12-14

Standard (CCV-1)

QC Batch: 107572

Date Analyzed: 2013-12-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.949	95	80 - 120	2013-12-14

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Standard (CCV-2)

QC Batch: 107572

Date Analyzed: 2013-12-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.924	92	80 - 120	2013-12-14

Standard (CCV-3)

QC Batch: 107572

Date Analyzed: 2013-12-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.854	85	80 - 120	2013-12-14

Standard (CCV-1)

QC Batch: 107577

Date Analyzed: 2013-12-16

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	242	97	80 - 120	2013-12-16

Standard (CCV-2)

QC Batch: 107577

Date Analyzed: 2013-12-16

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	237	95	80 - 120	2013-12-16

Standard (CCV-1)

QC Batch: 107639

Date Analyzed: 2013-12-17

Analyzed By: AR

Report Date: December 19, 2013
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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	99.9	100	85 - 115	2013-12-17

Standard (CCV-2)

QC Batch: 107639

Date Analyzed: 2013-12-17

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-12-17

Standard (CCV-1)

QC Batch: 107655

Date Analyzed: 2013-12-18

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.4	99	85 - 115	2013-12-18

Standard (CCV-2)

QC Batch: 107655

Date Analyzed: 2013-12-18

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-12-18

Standard (CCV-1)

QC Batch: 107664

Date Analyzed: 2013-12-18

Analyzed By: AR

Report Date: December 19, 2013
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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	101	101	85 - 115	2013-12-18

Standard (CCV-2)

QC Batch: 107664

Date Analyzed: 2013-12-18

Analyzed By: AR

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	2013-12-18

Standard (CCV-1)

QC Batch: 107668

Date Analyzed: 2013-12-18

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.7	99	85 - 115	2013-12-18

Standard (CCV-2)

QC Batch: 107668

Date Analyzed: 2013-12-18

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-12-18

Standard (CCV-1)

QC Batch: 107674

Date Analyzed: 2013-12-18

Analyzed By: AR

Report Date: December 19, 2013
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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	99.9	100	85 - 115	2013-12-18

Standard (CCV-2)

QC Batch: 107674

Date Analyzed: 2013-12-18

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-12-18

Standard (CCV-1)

QC Batch: 107711

Date Analyzed: 2013-12-19

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.933	93	80 - 120	2013-12-19

Standard (CCV-2)

QC Batch: 107711

Date Analyzed: 2013-12-19

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.851	85	80 - 120	2013-12-19

Standard (CCV-3)

QC Batch: 107711

Date Analyzed: 2013-12-19

Analyzed By: AK

Report Date: December 19, 2013
112MC05816

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		i	mg/Kg	1.00	0.851	85	80 - 120	2013-12-19

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
SQL	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	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 SQL. 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

Report Date: December 19, 2013
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The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

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Analysis Request of Chain of Custody Record

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**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavaréz

PROJECT NO.:

112MC0581W

PROJECT NAME:

Tankless Fed 35 #1H

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PRESERVATIVE METHOD					TX1005 (Ext. to C35)	TPH 8015 MOD	PAH 8270	PCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chlordane	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
								FILTERED (Y/N)	HCL	HNO3	ICE	NONE																	
348623	12/10		S	X		AH-1 0-1					X			X															
624						" 1-1.5					X																		
625						" 2-2.5					X																		
626						" 3-3.5					X																		
627						" 4-4.5					X																		
628						" 5-5.5					X																		
629						" 6-6.5					X																		
630						" 7-7.5					X																		
631						" 8-8.5					X																		
632						AH-2 0-1					X			X															

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Date: 12/10/13

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #: _____

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

HAND DELIVERED

UPS

OTHER: _____

RECEIVING LABORATORY:

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

DATE:

TIME:

TETRA TECH CONTACT PERSON:

Results by:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

Run deeper samples to Benzene exceeds 10, total BTEX exceeds 50, TPH exceeds 1,000 mg/kg. Chlorides on all.

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

No Medial all

Not taken NO sample received for AH-37-75 - Received sample for AH-4(6-6.5) Not entered on COC

13121211

Analysis Request of Chain of Custody Record

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**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavaréz

PROJECT NO.:

112MC05810

PROJECT NAME:

Tankless Fed 35 #1H

LAB I.D.
NUMBERDATE
2013

TIME

MATRIX

COMP

GRAB

SAMPLE IDENTIFICATION

Eddy Co., NM

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHODTEX 8021B
TEX 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

PCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

633

12/10

S

X

AH-2

1-1.5

634

1

S

X

"

2-2.5

635

1

S

X

"

3-3.5

636

1

S

X

"

4-4.5

637

1

S

X

"

5-5.5

638

1

S

X

"

6-6.5

639

1

S

X

"

7-7.5

640

1

S

X

"

8-8.5

641

1

S

X

"

9-9.5

642

1

S

X

AH-3

0-0.5

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Date: 12/10/13

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #: _____

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

FEDEX BUS

HAND DELIVERED UPS

OTHER: _____

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges

Authorized:

Yes

No

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

13121211

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 5

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavaraz

PROJECT NO.:

112MC058116

PROJECT NAME:

Tankless Fed 35 #1H

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD				BTX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC-MS Vol. 8240/8260/624	GC-MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
									HCL	HNO3	ICE	NONE																	
643	12/10		S	X		AA-3 1-1.5					X														X				
644						" 2-2.5					X													X					
645						" 3-3.5					X													X					
646						" 4-4.5					X													X					
647						" 5-5.5					X													X					
648						" 6-6.5					X													X					
649						AAH-4 7-7.5 6-6.5'					X													X					
650						AAH-4 0-1					X													X					
651						" 1-1.5					X													X					
652						" 2-2.5					X													X					

RELINQUISHED BY: (Signature)

Date:

Time: 07:08

RECEIVED BY: (Signature)

Date:

Time: 9:23

SAMPLED BY: (Print & Initial)

Date:

Time: 12/10/13

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

OTHER:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

2.40

Results by:

RUSH Charges
Authorized:

Yes No

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

13121211

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 5

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavaraz

PROJECT NO.:

112MC05816

PROJECT NAME:

TANKLESS Feed 35 #14

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD				BTEX 8021B	CPH 8015 MOD TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
									HCL	HNO3	ICE	NONE																	
653	12/10		S	X		AH-4 3-3.5					X																		
654						" 4-4.5					X																		
655						" 5-5.5					X																		
656						AH-5 0-1					X																		
657						" 1-1.5					X																		
658						" 2-2.5					X																		
659						" 3-3.5					X																		
660						" 4-4.5					X																		
661						" 5-5.5					X																		
662						" 10-6.5					X																		

RELINQUISHED BY: (Signature)

Date: 12/12/13

Time: 09:29

RECEIVED BY: (Signature)

Date: 12/12/13

Time: 9:23

SAMPLED BY: (Print & Initial)

CG & RR

Date: 12/10/13

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

240

RUSH Charges

Authorized:

Yes No

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

PAGE: 5 OF: 5

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike TAVAREZ

PROJECT NO.:

112MCD58116

PROJECT NAME:

Tankless # Fed 35 #14

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION		NUMBER OF	FILTERED (Y)	HCL	HNO3	ICE	NONE	BTX 8021B	CPH 8015	PAH 8820	RCRA Metals	TCLP Metals	TCLP Volatiles	TCLP Semi	RCI	GC/MS Vol. 1	GC/MS Semi	PCB's 8080/	Pest. 808/60	Chloride	Gamma Spe	Alpha Beta (PLM (Asbest	Major Anions
	2013					Eddy Co., NM																								
663	12/10		S		X	AH-5	7-7.5					X														X				
664							8-8.5					X														X				
665						AH-6	0-1					X														X				
666							1-1.5					X														X				
667							2-2.5					X														X				
668							3-3.5					X														X				
669							4-4.5					X														X				
670							5-5.5					X														X				
671							6-6.5					X														X				
672							7-7.5					X														X				

RELINQUISHED BY: (Signature)

Date: 12/10/13

Time: 09:54

RECEIVED BY: (Signature)

Date: 12/10/13

Time: 9:23

SAMPLED BY: (Print & Initial)

CG & RR

Date: 12/10/13

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

AIRBILL #:

HAND DELIVERED UPS

OTHER:

RECEIVING LABORATORY:

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges

Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

2.40

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 17, 2014

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: TANKLESS 35 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 04/16/14 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Coley D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received: 04/16/2014
Reported: 04/17/2014
Project Name: TANKLESS 35 FEDERAL #1
Project Number: 112MC05816
Project Location: COG

Sampling Date: 04/16/2014
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: T-1 AH-6 0' (H401144-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5120	16.0	04/17/2014	ND	400	100	400	3.92	

Sample ID: T-1 AH-6 2' (H401144-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	04/17/2014	ND	400	100	400	3.92	

Sample ID: T-1 AH-6 4' (H401144-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3960	16.0	04/17/2014	ND	400	100	400	3.92	

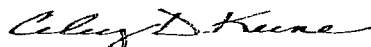
Sample ID: T-1 AH-6 6' (H401144-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	04/17/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received: 04/16/2014
Reported: 04/17/2014
Project Name: TANKLESS 35 FEDERAL #1
Project Number: 112MC05816
Project Location: COG

Sampling Date: 04/16/2014
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: T-1 AH-6 8' (H401144-05)

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	04/17/2014	ND	400	100	400	3.92	


Sample ID: T-1 AH-6 10' (H401144-06)

Chloride, SM4500CI-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	04/17/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

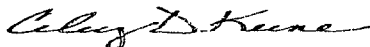
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

H401144

CLIENT NAME: **COG**

SITE MANAGER: **IKE TAVAKZ**

PROJECT NO.: **112MCO5814**

PROJECT NAME: **Tankless 35 Federg/ #1**

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD				BTX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
									HCL	HNO3	ICE	NONE																	
1	4/16					T-1 AH-C 0'																							
2						T-1 AH-C 2'																							
3						T-1 AH-C 4'																							
4						T-1 AH-C 6'																							
5						T-1 AH-C 8'																							
6						T-1 AH-C 10'																							

RELINQUISHED BY: (Signature) *[Signature]*

Date: **4-16-14**
Time: **11:20 AM**

RECEIVED BY: (Signature) *[Signature]*

Date: **4/16/14**
Time: **11:25**

SAMPLED BY: (Print & Initial) _____ Date: _____
Time: _____

RELINQUISHED BY: (Signature) _____

Date: _____
Time: _____

RECEIVED BY: (Signature) _____

Date: _____
Time: _____

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #: _____
HAND DELIVERED UPS OTHER: _____

RELINQUISHED BY: (Signature) _____

Date: _____
Time: _____

RECEIVED BY: (Signature) _____

Date: _____
Time: _____

TETRA TECH CONTACT PERSON: _____ Results by: _____

RECEIVING LABORATORY: _____ RECEIVED BY: (Signature) _____
ADDRESS: _____
CITY: _____ STATE: _____ ZIP: _____
CONTACT: _____ PHONE: _____ DATE: _____ TIME: _____

SAMPLE CONDITION WHEN RECEIVED: **20.2% #54**

REMARKS: _____

RUSH Charges Authorized: **Yes** No



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 06, 2014

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: TANKLESS 35 FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 04/30/14 9:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received: 04/30/2014
Reported: 05/06/2014
Project Name: TANKLESS 35 FEDERAL #1
Project Number: 112MC05816
Project Location: COG

Sampling Date: 04/16/2014
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: AH-2 NSW (H401296-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/06/2014	ND	400	100	400	0.00	

Sample ID: AH-2 SSW (H401296-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	05/06/2014	ND	400	100	400	0.00	

Sample ID: AH-2 WSW (H401296-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/06/2014	ND	416	104	400	0.00	

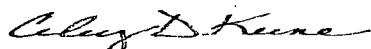
Sample ID: AH-4 NSW (H401296-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	05/06/2014	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

 Received: 04/30/2014
 Reported: 05/06/2014
 Project Name: TANKLESS 35 FEDERAL #1
 Project Number: 112MC05816
 Project Location: COG

 Sampling Date: 04/16/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: AH-4 SSW (H401296-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-4 ESW (H401296-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-4 WSW (H401296-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-5 NSW (H401296-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	05/06/2014	ND	416	104	400	0.00	

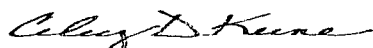
Sample ID: AH-5 SSW (H401296-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	05/06/2014	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

 Received: 04/30/2014
 Reported: 05/06/2014
 Project Name: TANKLESS 35 FEDERAL #1
 Project Number: 112MC05816
 Project Location: COG

 Sampling Date: 04/16/2014
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: AH-5 ESW (H401296-10)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-6 NSW (H401296-11)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	05/06/2014	ND	416	104	400	0.00	

Sample ID: AH-6 SSW (H401296-12)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	05/06/2014	ND	416	104	400	0.00	

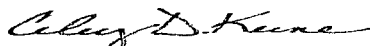
Sample ID: AH-6 WSW (H401296-13)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	05/06/2014	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

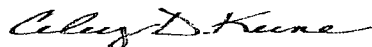
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

PAGE: _____

ANALYSIS REQUEST
(Circle or Specify Method No.)

H4D1296

CLIENT NAME:

COG

SITE MANAGER:

IKC Tavares

PROJECT NO.:

112MC058/16

PROJECT NAME:

Tankless 35 Fed # 1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF FILTERED (HCL	HNO3	ICE	NONE	BTEX 8021	TPH 8015	PAH 8270	RCRA Meta	TCLP Meta	TCLP Volat	TCLP Semi	RCI	GC/MS Vol.	GC/MS Sem	PCB's 8080	Pest. 808/6	Chloride	Gamma Sp	Alpha Beta	PLM (Asbes	Major Anio
1	4/16/14	4:30 AM				AH-2 NSW																		/				
2						AH-2 SSW																		/				
3						AH-2 WSW																		/				
4						AH-4 NSW																		/				
5						AH-4 SSW																		/				
6						AH-4 ESW																		/				
7						AH-4 WSW																		/				
8						AH-5 NSW																		/				
9						AH-5 SSW																		/				
10						AH-5 ESW																		/				

RELINQUISHED BY: (Signature)

Date: 4-30-14

Time: 9:45 AM

RECEIVED BY: (Signature)

Date: 4-30-14

Time: 9:45

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

Date: _____

Time: _____

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

Date: _____

Time: _____

RECEIVING LABORATORY:

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

Date: _____

Time: _____

SAMPLE CONDITION WHEN RECEIVED:

17°C #54

REMARKS:

SAMPLED BY: (Print & Initial)

Date: _____

Time: _____

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

HAND DELIVERED

UPS

AIRBILL #:

OTHER:

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges

Authorized:

Yes

No

Analysis Request of Chain of Custody Record

PAGE:



TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

H401296

CLIENT NAME: LOG

SITE MANAGER: Ike Tavaraz

PROJECT NO.: 112 MC05816

PROJECT NAME: TANKLESS 35 Fed #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED	HCL	HNO3	ICE	NONE	BTEX 8021	TPH 8011	PAH 8270	RCRA Metals	TCLP Metals	TCLP Volatiles	TCLP Semivolatile	RCI	GC/MS Volatiles	GC/MS Semivolatile	PCBs 8080	Pest. 808/608	Chloride	Gamma Sp.	Alpha Beta	PLM (Asbestos)	Major Anions	
11	4/16/14	4:30 PM				AH-6 NSW																			/					
12						AH-6 SSW																		/						
13						AH-6 WSW																		/						
																				</										

RELINQUISHED BY: (Signature)

Date: 4-30-14

Time: 7:45 AM

RECEIVED BY: (Signature)

Date: 4/30/14

Date: 4/30/14

Time: 8:45

SAMPLED BY: (Print & Initial)

Date: _____

Time: _____

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

Date: _____

Date: _____

Time: _____

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

HAND DELIVERED UPS

AIRBILL #: _____

OTHER: _____

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

Date: _____

Date: _____

Time: _____

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

CONTACT: _____ PHONE: _____ DATE: _____ TIME: _____

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

170 #54

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

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