SITE INFORMATION

Report Type: Work Plan

General Site Information:						
Site:	Electra North Federal Tank Battery					
Company:	COG Operating LLC					
Section, Township and Range	Unit B	Sec 10	T17S	R30E		
Lease Number:	API# 30-015-36467					
County:	Eddy County					
GPS:	32.85309° N			103.95885° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From the intersection of Hwy 82 and Goat Roper Rd in Loco Hills, travel north on Goat Roper Rd for 1.7m, turn right and travel 0.8m, turn left and travel 0.4m, turn right and travel 0.2m, turn left and travel 0.2m.					

Release Data:	Spill #1	Spill #2
Date Released:	9/26/2011	9/29/2011
Type Release:	Oil	Produced water and Oil
Source of Contamination:	Closed equalizer value	Yale tank battery shut down causing an influx of produced water to the Electra Tank Battery
Fluid Released:	60 bbls	38 bbls of PW and 2 bbls of Oil
Fluids Recovered:	50 bbls	36 bbls of PW and 1 bbl of Oil

Official Communication:			
Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300		1910 N. Big Spring
P.O. Box			
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 682-4559
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		ike.tavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	0	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

TETRA TECH

April 4, 2012

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, New Mexico 88210

Re: Work Plan for the COG Operating LLC., Electra North Federal Tank Battery, Unit B, Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess two spills from the Electra North Federal Tank Battery located in Unit B, Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.85309°, W 103.95885. The site location is shown on Figures 1 and 2.

Background

Two separate spills occurred at the Site within three days of each other. COG excavated approximately 2.0' of impacted material immediately following the first spill. The second spill, produced water and oil, released and ran within the previously excavated footprint.

Spill #1

According to the State of New Mexico C-141 Initial Report, the first leak was discovered on September 26, 2011, and released approximately sixty (60) barrels of oil due to an equalizer valve being closed, causing to tank flow. To alleviate the problem, COG personnel opened the valve and have increased inspections of equalizer valves in the future. Fifty (50) barrels of standing fluids were recovered. The spill was fully contained inside the facility firewalls affecting an area of approximately 45' x 90'.

Tetra Tech
1910 North Big Spring, Midland,TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Spill #2

According to the State of New Mexico C-141 Initial Report, the second spill was discovered September 29, 2011, and released approximately thirty-eight (38) barrels of produced water and two (2) barrels of oil. The cause of the release is due to the Yale Tank Battery pump shutting down and creating an influx of produced water to the Site and overflowing the tank. To alleviate the problem, COG has assigned a regular schedule of water haulers to the Yale Tank Battery. Thirty-six (36) barrels of produced water and one (1) barrel of oil were recovered. The spill was fully contained inside the facility firewalls and remained within the previously excavated area impacting an area approximately 45' x 90'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 10. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 300' below surface. The groundwater map is shown in Appendix B.

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.

Previous Assessment and Remediation

Previous to the two current spills, Tetra Tech submitted a Work Plan to the NMOCD and BLM for approval, dated May 25, 2011. As approved, the remediation of the site was implemented on July 28, 2011. As recommended, the impacted areas were excavated to depths of 2.0' to 3.0' below surface. Based on the assessment results, the areas of AH-1 (southwest of TB) and AH-4 (northeast of TB) were excavated to a depth of 3.0' and capped with clay material in the bottom of the excavation and

backfilled with clean soil. A copy of the submitted Closure Report is attached in Appendix C.

Soil Assessment and Analytical Results

On November 1, 2011, Tetra Tech personnel inspected and sampled the spill area. Four (4) auger holes (AH-1 through AH-4) 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 D. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, auger holes (AH-1, AH-2, and AH-4) exceeded the RRAL for TPH, Benzene and Total BTEX and the concentrations declined with depth to below the RRAL at 2.0', 3.0' and 4.0', respectively.

Chloride impacted areas were detected in the areas of AH-1, AH-3, AH-4. Chloride concentrations for AH-1 ranged from 610 mg/kg (0-1') to 5,770 mg/kg (3-3.5'). The bottom hole sample at 7-7.5' bgs showed a significant decrease to <200 mg/kg. The area of AH-3 showed a shallow impact of chloride of 2,120 mg/kg at 0-1', which declined to 278 mg/kg at 1-1.5' below surface. Auger hole (AH-4) chloride concentrations significantly increased with depth at 5,320 mg/kg (5-5.5') 6,630 mg/kg (6-6.5') and 3,780 mg/kg (7-7.5') and was not vertically defined.

In order to vertically define the area of AH-4, Tetra Tech personnel utilized an air rotary drilling rig to install one bore hole (BH-1) near AH-4. Samples were collected to a depth of 10' below surface. Referring to Table 1, no significant chloride impact was detected in the bore hole sampling and the impact appears to be limited.

Work Plan

COG proposes to remove the impacted material as highlighted (green) in Table 1 and shown on Figure 4. As shown in Table 1, the proposed excavation depths will range from 1.0' to 3.0' below surface, if accessible.

The areas of AH-1 and AH-4 will be excavated to a depth of approximately 3.0' below surface. Due to the proximity of the facility equipment, deeper excavation will not be performed at the site. In addition, the area of AH-1 has previously placed clay material at 3.0' below surface. Once excavated to the appropriate depths, the area of AH-4 will capped (6"

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to 1.0' thick) with a clay material at 3.0' below surface. Auger holes (AH-4) Auger holes (AH-2 and AH-3) will be excavated to a depth of 1.0' to 2.0' below surface.

The proposed excavation depths may not be reached due to wall cave ins and safety concerns for onsite personnel. In addition, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safely concerns. As such, Tetra Tech will excavate the soils to the maximum extent practicable. If the depths are not reached, clay material will be installed to cap the impacted area.

Once the areas are excavated to the appropriate depths, the excavation will be backfilled with clean soil. Upon completion a final report will be submitted to the NMOCD

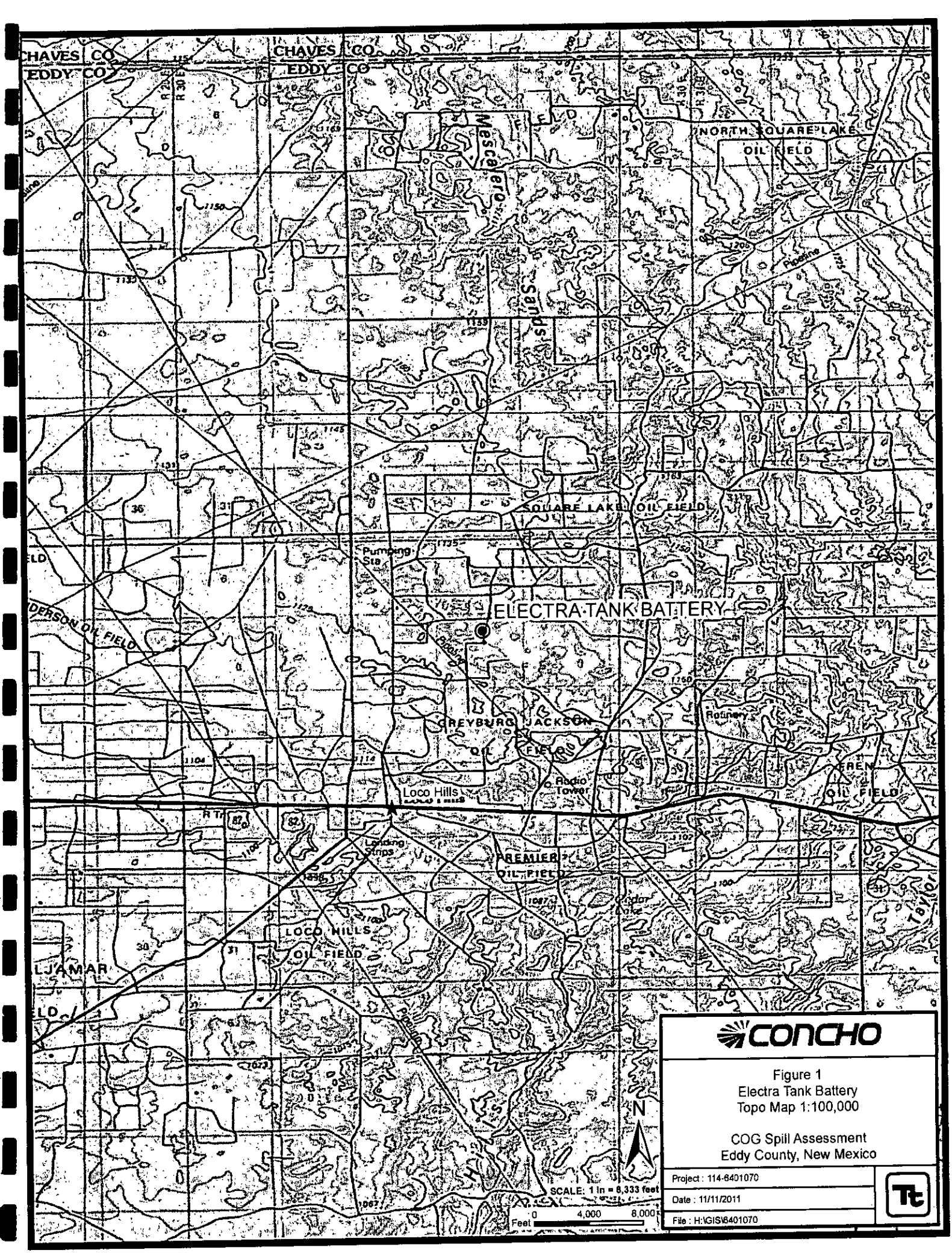
If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

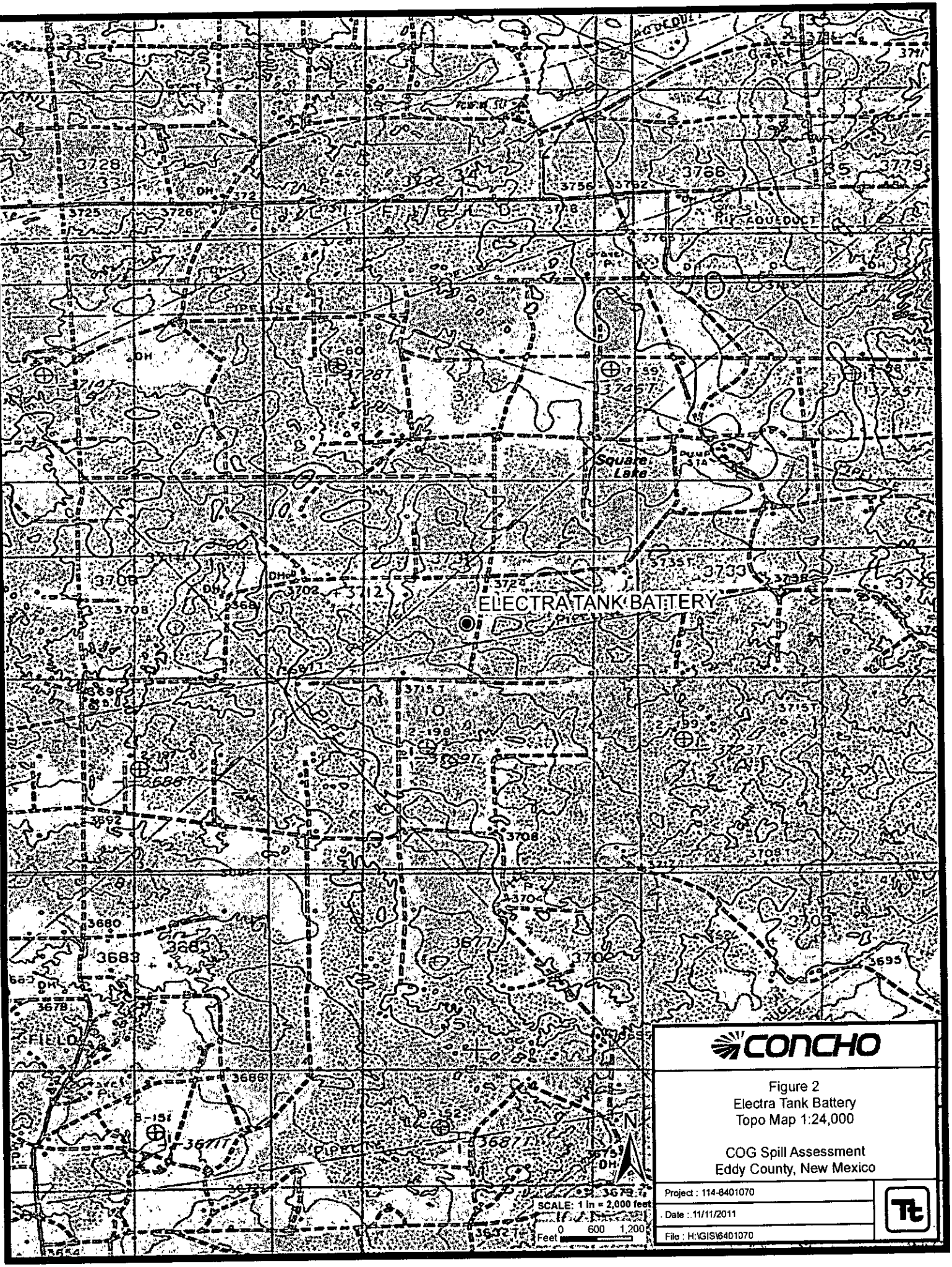
Respectfully submitted,
TETRA TECH

Ike Tavarez, PG
Project Manager

cc: Pat Ellis – COG
cc: Terry Gregston – BLM

Figures


CHAVES CO
EDDY CO
CHAVES CO
EDDY CO
NORTH SQUARE LAKE
OIL FIELD
Mescalero Sands
Pipeline
SQUARE LAKE OIL FIELD
Pumping Sta
ELECTRA TANK BATTERY
Pipeline
GREYBURG JACKSON
OIL FIELD
Rodney
Radio Tower
Loco Hills
Landing Strips
PREMIER
OIL FIELD
LOCO HILLS
OIL FIELD
Pipeline
N
SCALE: 1 In = 8,333 feet
Feet 0 4,000 8,000
CONCHO
Figure 1
Electra Tank Battery
Topo Map 1:100,000
COG Spill Assessment
Eddy County, New Mexico
Project : 114-6401070
Date : 11/11/2011
File : H:\GIS\6401070

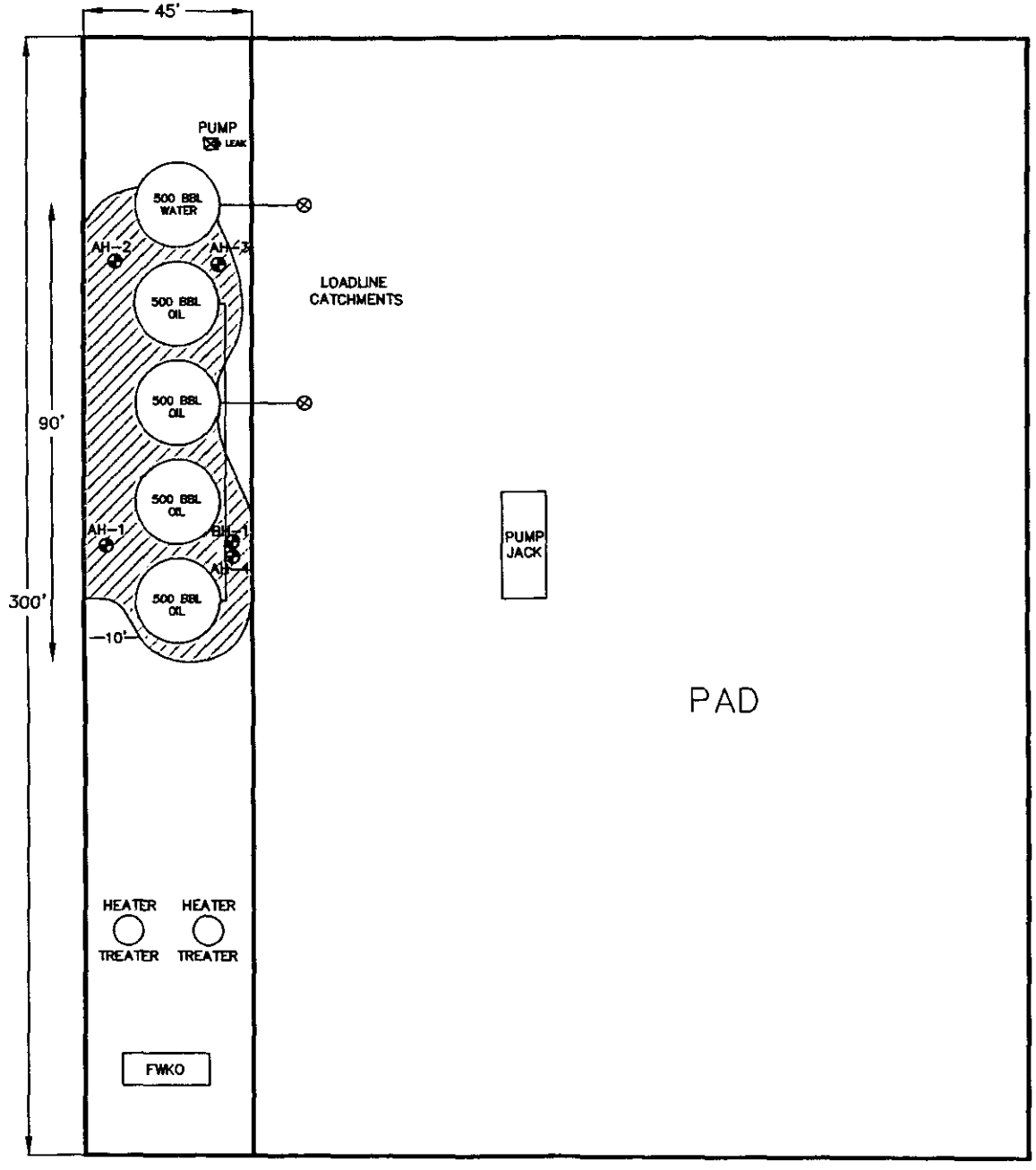


CONCHO

Figure 2
Electra Tank Battery
Topo Map 1:24,000

COG Spill Assessment
Eddy County, New Mexico

Project : 114-8401070	
Date : 11/11/2011	
File : H:\GIS\8401070	



SPILL AREA 9-26-11 & 9-29-11
AUGER HOLE LOCATIONS
BORE HOLE LOCATIONS

NOT TO SCALE

FIGURE NO. 3

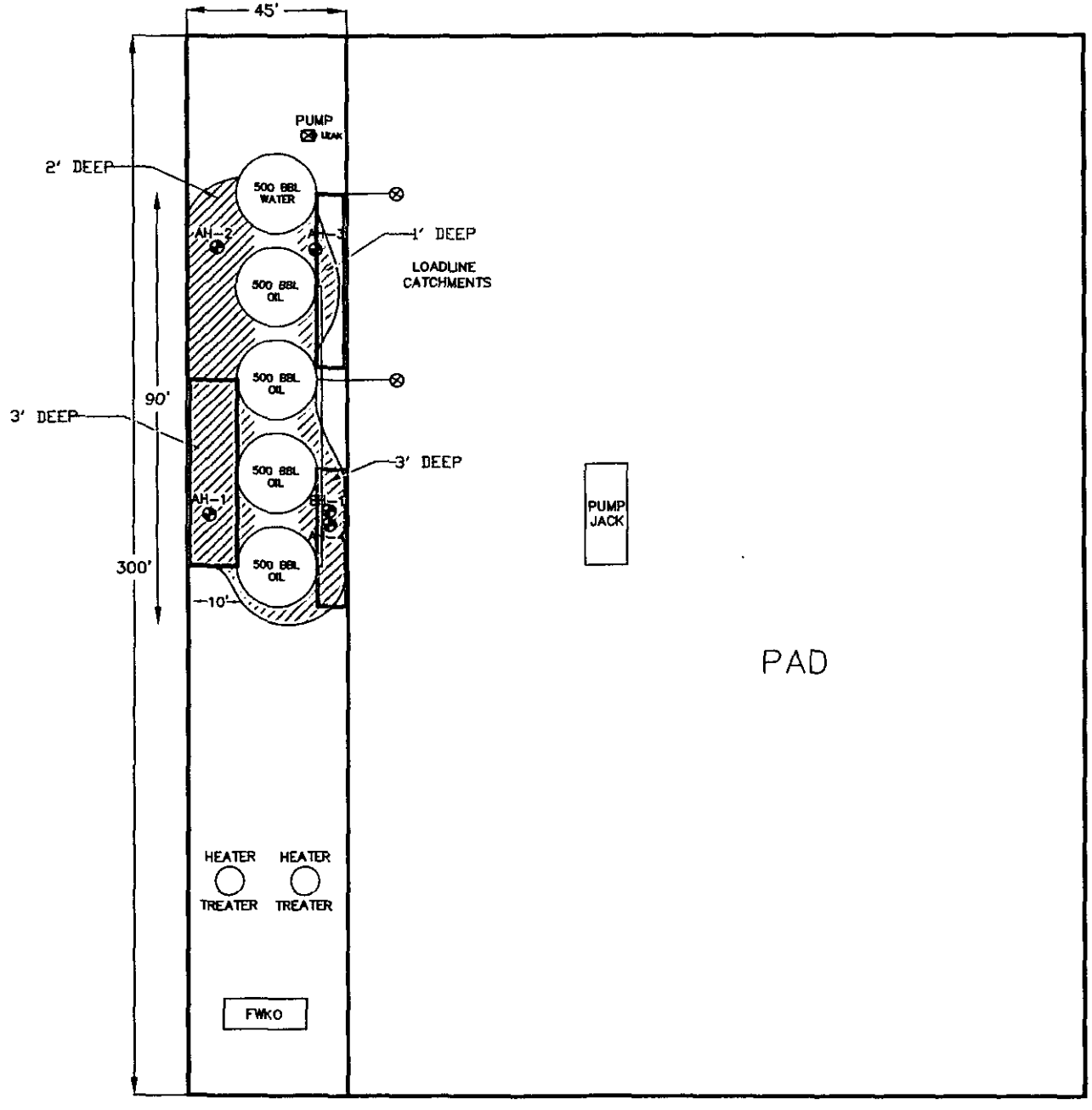
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

ELECTRA NORTH FEDERAL TB

TETRA TECH, INC.
MIDLAND, TEXAS

DATE: 1/25/2012
DWN. BY: IM
FILE: H:\COG\640016170 ELECTRA NORTH FED TB



- PROPOSED 3' CLAY INSTALLATION
- PREVIOUS INSTALLED CLAY (3')
- PROPOSED EXCAVATION AREA
- AUGER HOLE LOCATIONS
- BORE HOLE LOCATIONS

NOT TO SCALE

DATE: 1/25/2012
DWN. BY: IM
FILE: H:\COG\84001070 ELECTRA NORTH FED TB

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

ELECTRA NORTH FEDERAL TB
PROPOSED EXCAVATION AREA & DEPTHS MA

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
COG Operating LLC
Electra North Tank Battery
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-1	11/1/2011	0-1	2'	X		9,190	8,020	**17,210**	**59.6**	218	144	173	**595**	610
	"	1-1.5	2'	X		8,460	8,450	**16,910**	**44.8**	196	144	177	**562**	1,300
	"	2-2.5	2'	X		3.35	<50.0	3.35	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	2,920
	"	3-3.5	2'	X		-	-	-	-	-	-	-	-	5,770
	"	4-4.5	2'	X		-	-	-	-	-	-	-	-	5,320
	"	5-5.5	2'	X		-	-	-	-	-	-	-	-	4,180
	"	6-6.5	2'	X		-	-	-	-	-	-	-	-	3,670
	"	7-7.5	2'	X		-	-	-	-	-	-	-	-	<200
AH-2	11/1/2011	0-1	2'	X		1,840	3,870	**5,710**	5.38	29.2	18.8	29.4	82.8	500
	"	1-1.5	2'	X		1,240	4,140	**5,380**	5.68	23.7	14.2	20.4	64.0	250
	"	2-2.5	2'	X		1,320	3,770	**5,090**	3.41	34.2	22.7	37.1	97.4	<200
	"	3-3.5	2'	X		47.3	1,360	1,407	<0.100	<0.100	<0.100	<0.100	<0.100	<200
AH-3	11/1/2011	0-1	2'	X		505	814	1,319	<0.100	1.16	1.59	1.92	4.67	2,120
	"	1-1.5	2'	X		-	-	-	-	-	-	-	-	278
	"	2-2.5	2'	X		-	-	-	-	-	-	-	-	844
		3-3.5	2'	X		-	-	-	-	-	-	-	-	-

Table 1
COG Operating LLC
Electra North Tank Battery
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-4	11/1/2011	0-1	2'	X		6,720	11,400	**18,120**	**25.1**	155	109	133	**422**	571
	"	1-1.5	2'	X		3,760	6,380	**10,140**	**20.8**	90.3	75.8	103	**290**	497
	"	2-2.5	2'	X		4,120	9,100	**13,220**	**19.0**	55.5	67.4	103	**245**	670
	"	3-3.5	2'	X		3,120	8,060	**11,180**	<2.00	24.4	47.7	77.8	**150**	641
	"	4-4.5	2'	X		9.87	149	159	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	914
	"	5-5.5	2'	X		-	-	-	-	-	-	-	-	4,260
	"	6-6.5	2'	X		-	-	-	-	-	-	-	-	6,630
	"	7-7.5	2'	X		-	-	-	-	-	-	-	-	3,780
BH-1	1/25/2012	0-1	-	X		-	-	-	-	-	-	-	-	290
	"	2-3	-	X		-	-	-	-	-	-	-	-	231
	"	4-5	-	X		-	-	-	-	-	-	-	-	<200
	"	6-7	-	X		-	-	-	-	-	-	-	-	334
	"	9-10	-	X		-	-	-	-	-	-	-	-	<200

(--) Not Analyzed

Proposed Excavation Depths

Previously installed clay liner

Proposed clay installation

Photos

COG Operating LLC
Electra Federal North Tank Battery
Eddy County, New Mexico

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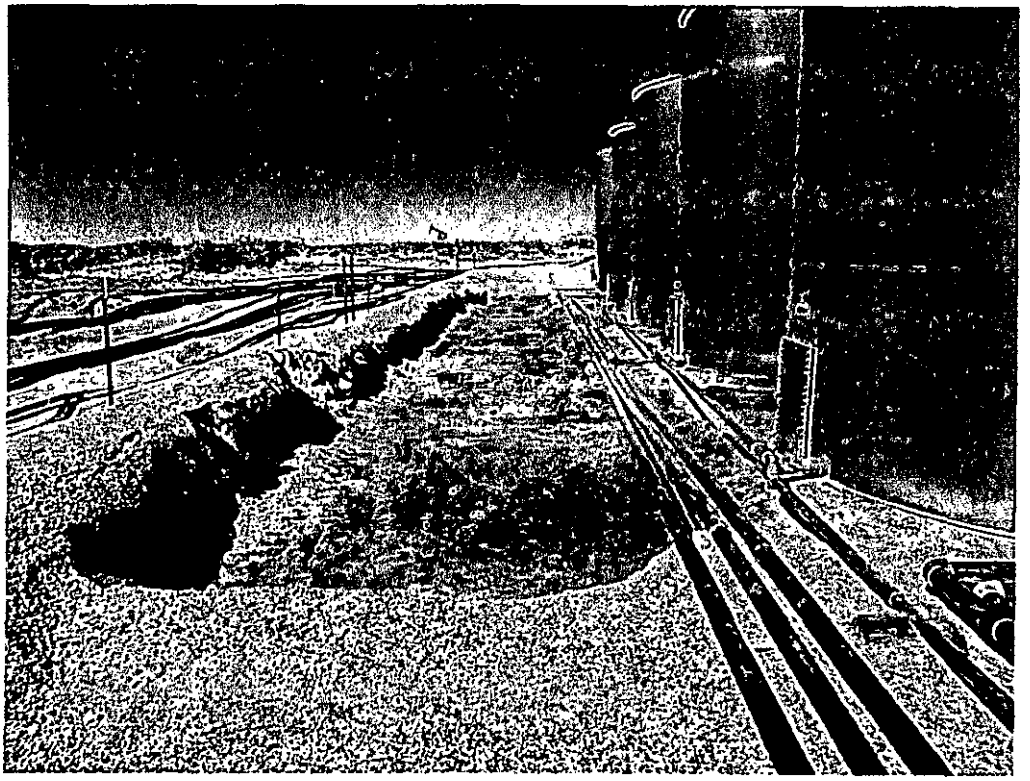
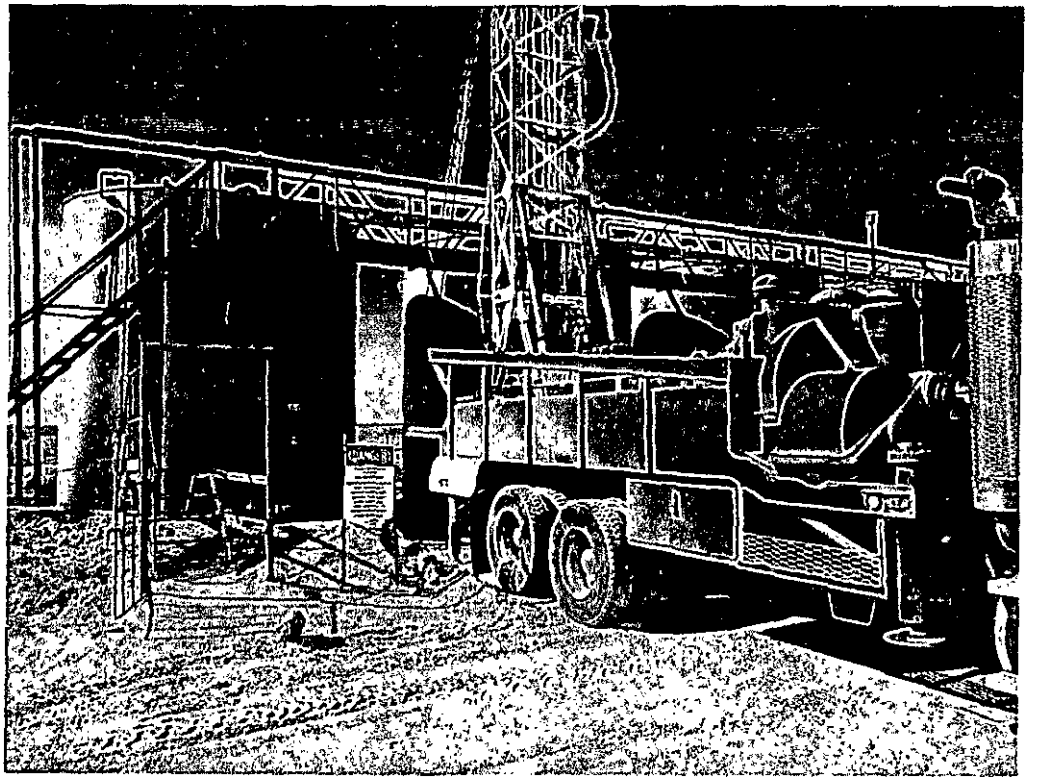
View south – Front of tank battery near AH-3 and AH-4



View north – Backside of tank battery near AH-1 and AH-2

COG Operating LLC
Electra Federal North Tank Battery
Eddy County, New Mexico

TETRA TECH



View west – Front side of tank battery, installing BH-1 near AH-4

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	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Electra Federal North Tank Battery	Facility Type	Tank Battery

Surface Owner Federal	Mineral Owner	Lease No. (API#) 30-015-36467

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	10	17S	30E					Eddy

Latitude 32.85309 **Longitude** 103.95885

NATURE OF RELEASE

Type of Release Oil	Volume of Release 60bbls	Volume Recovered 50bbls
Source of Release Oil tank	Date and Hour of Occurrence 09/26/2011	Date and Hour of Discovery 09/26/2011 7:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD Jim Amos-OCD	
By Whom? Josh Russo	Date and Hour 09/26/2011 5:52 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The equalizer valve was closed causing the oil tank to overflow. The equalizer line has been opened and there will be closer inspection of equalizer valves in the future.

Describe Area Affected and Cleanup Action Taken.*

Initially 60bbls of oil were released from the oil tank and we were able to recover 50bbls with a vacuum truck. The entire release was completely contained inside the facility walls of the tank battery. All free fluid has been recovered and the tank has been steam cleaned. Contaminated soil inside the facility has been removed and sent to disposal. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM 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.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Josh Russo	Approved by District Supervisor:	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached ☐
Date: 10/06/2011 Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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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

RECEIVED
MAY 21 2012
NMOCD ARTESIA

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	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Electra Federal North Tank Battery	Facility Type	Tank Battery

Surface Owner Federal	Mineral Owner	Lease No. (API#) 30-015-36467

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	10	17S	30E					Eddy

Latitude 32.85309 **Longitude** 103.95885

NATURE OF RELEASE

Type of Release Produced water and oil	Volume of Release 38bbls PW 2bbls Oil	Volume Recovered 36bbls PW 1bbl Oil
Source of Release Water tank	Date and Hour of Occurrence 09/29/2011	Date and Hour of Discovery 09/29/2011 10:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD	
By Whom? Josh Russo	Date and Hour 09/30/2011 10:32 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The Yale Tank Battery pump shut down causing an influx of produced water to be sent to the Electra Federal North Tank Battery. Water trucks have been assigned to a regular schedule to haul water from the Yale TB to eliminate this from occurring again in the future.

*Describe Area Affected and Cleanup Action Taken.**

Initially 40bbls of produced fluids were released out of the water tank and we were able to recover 37bbls with a vacuum truck. The spill area was completely contained inside the dike walls of the facility. This spill is in the same area as the spill from 09/26/2011. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Josh Russo	Approved by District Supervisor:
Title: HSE Coordinator	Approval Date: / Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval: / Attached ☐
Date: 10/10/2011 Phone: 432-212-2399	

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Electra North Federal Tank Battery
Eddy County, New Mexico

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19 **110**	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 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

16 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31 **290**	32	33	34	35

17 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 **80**	23	24
30	29 **210** **208'**	28	27	26	25
31	32	33	34	35 153	36

17 South 30 East

6	5	4	3	2	1
7	8	9	10 Site	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

17 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31	32	33	34 **271**	35

18 South 29 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

18 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

18 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14 **317**
19	20	21	22	23
30	29	28	27	26
31	32	33	34	35 **261**

- New Mexico State Engineers Well Reports
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data

Appendix C

SITE INFORMATION

Report Type: Work Plan

General Site Information:						
Site:	Electra North Federal Tank Battery					
Company:	COG Operating LLC					
Section, Township and Range	Unit B	Sec 10	T17S	R30E		
Lease Number:	NMNM-0467931					
County:	Eddy County					
GPS:	32.85319° N			103.95908° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From the intersection of Hwy 82 and Goat Roper Rd in Loco Hills, travel north on Goat Roper Rd for 1.7m, turn right and travel 0.8m, turn left and travel 0.4m, turn right and travel 0.2m, turn left and travel 0.2m.					

Release Data:	
Date Released:	9/1/2010
Type Release:	Produced Water
Source of Contamination:	Water Transfer Pump
Fluid Released:	55 bbls
Fluids Recovered:	50 bbls

Official Communication:			
Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300		1910 N. Big Spring
P.O. Box			
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 682-4559
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		ike.tavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	0	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

TETRA TECH

May 25, 2011

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, New Mexico 88210

Re: Work Plan for the COG Operating LLC., Electra North Federal Tank Battery, Unit B, Section 10, Township 17 South, Range 30 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 Electra North Federal Tank Battery located in Unit B, Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.85319°, W 103.95908. 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 September 1, 2010, and released approximately fifty five (55) barrels of produced fluid from the water transfer pump. To alleviate the problem, COG personnel repaired the swedge on the pump. Fifty (50) barrels of standing fluids were recovered. The spill was fully contained inside the facility firewalls affecting an area around the facility measuring approximately 45' x 140'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 10. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 300' below surface. The groundwater map is shown in Appendix B.

Tetra Tech
Tel Fax

TETRA TECH

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 September 14, 2010, Tetra Tech personnel inspected and sampled the spill area. Five (5) auger holes (AH-1 through AH-5) were installed using a stainless steel hand auger to assess the impacted soils. Select 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, none of the samples exceeded the RRAL for TPH. Auger hole (AH-4) exceeded the total BTEX, but declined below the RRAL at 2-2.5' below surface. Auger holes (AH-3) did not show a chloride impact to the subsurface soils. Auger holes (AH-2 and AH-5) were vertically defined at depths of 2-2.5' and 6-6.5', respectively. The remaining auger holes (AH-1 and AH-4) were not vertically defined.

On March 3, 2011, Tetra Tech personnel supervised the installation of one soil boring (SB-1) in the area of AH-4. Soil samples were collected to a depth of 30.0'. Due to the location of AH-1, the drilling rig was not accessible behind the tank battery to assess the chloride impact at AH-1. Referring to Table 1, SB-1 detected chloride concentrations of 13,300 mg/kg at 7.0' and declined to 208 mg/kg at 10.0' below surface. The soil boring location is shown on Figure 3.

TETRA TECH

Work Plan

COG proposes to remove impacted material as highlighted (green) in Table 1 and shown on Figure 4. To assess the impacted area at AH-1, a backhoe trench will be installed to attempt to vertically define or show a declining chloride in the area, if accessible.

Due to limited area inside the facility dike, the proposed excavation depths may not be reached due to wall cave ins and safety concerns for onsite personnel. In addition, impacted soil will be around oil and gas equipment, structures or lines and may not be feasible or practicable to be removed to appropriate depths due to safely concerns. As such, Tetra Tech will excavate the soils to the maximum extent practicable, which appears to be around 1.0' to 3.0' below surface. Once excavated, clay will be placed into the excavations (bottom) to cap the impact. Based on groundwater depth (greater 300'), the deeper chloride impact does not appear to be an environmental concern and the soils will be deferred until abandonment.

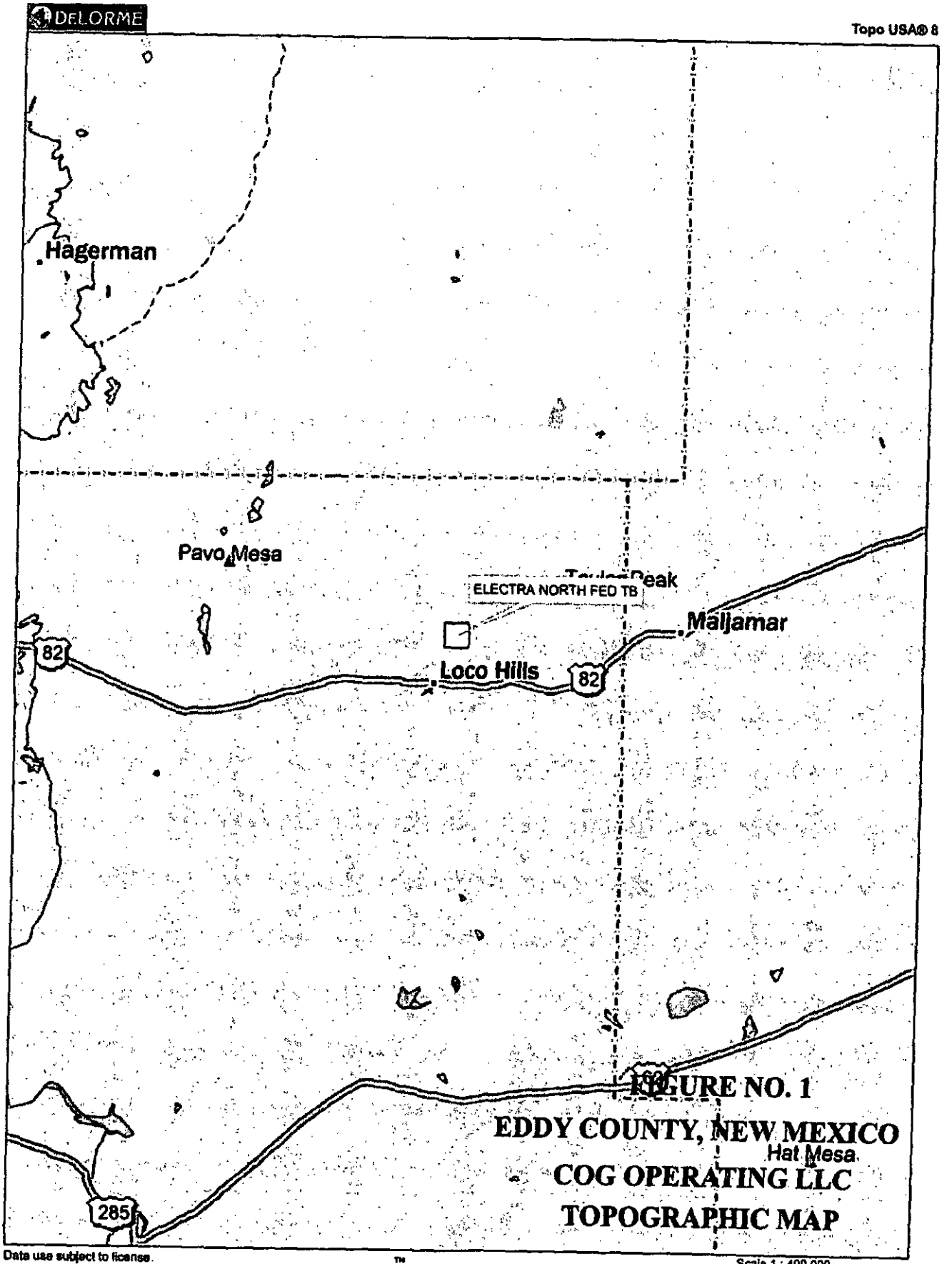
Upon completion, a final report will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez
Project Manager

cc: Pat Ellis – COG
cc: Terry Gregston – BLM

Figures


DeLORME
Topo USA® 8
Hagerman
Pavo Mesa
ELECTRA NORTH FED TB
Maljamar
Loco Hills
82
82
285
Hat Mesa
FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP
Data use subject to license.
© DeLorme. Topo USA® 8
www.delorme.com
Scale 1 : 400,000
1" = 6.31 mi
Data Zoom 8-0

DeLORME

Topo USA® 8

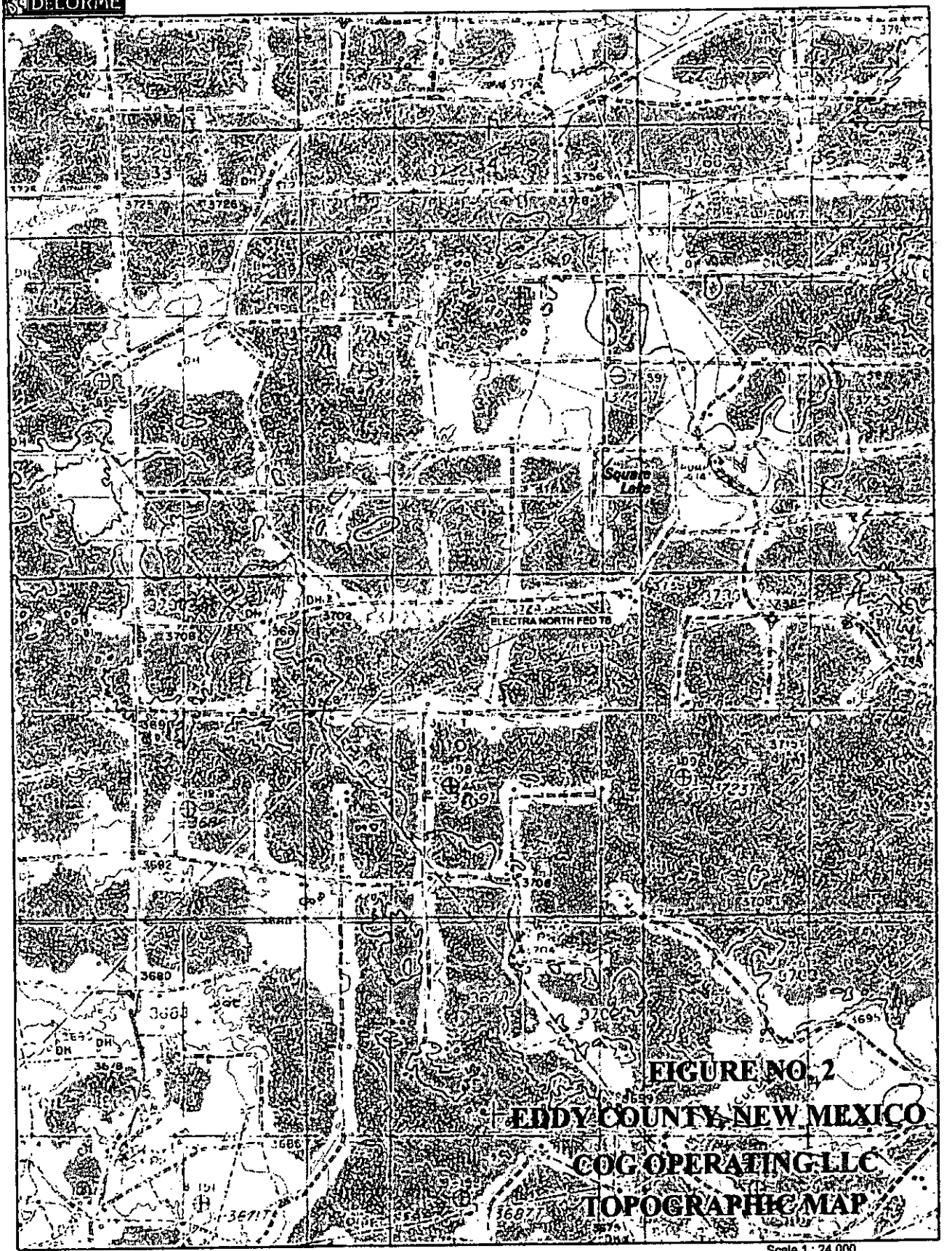


FIGURE NO. 2

EDDY COUNTY, NEW MEXICO

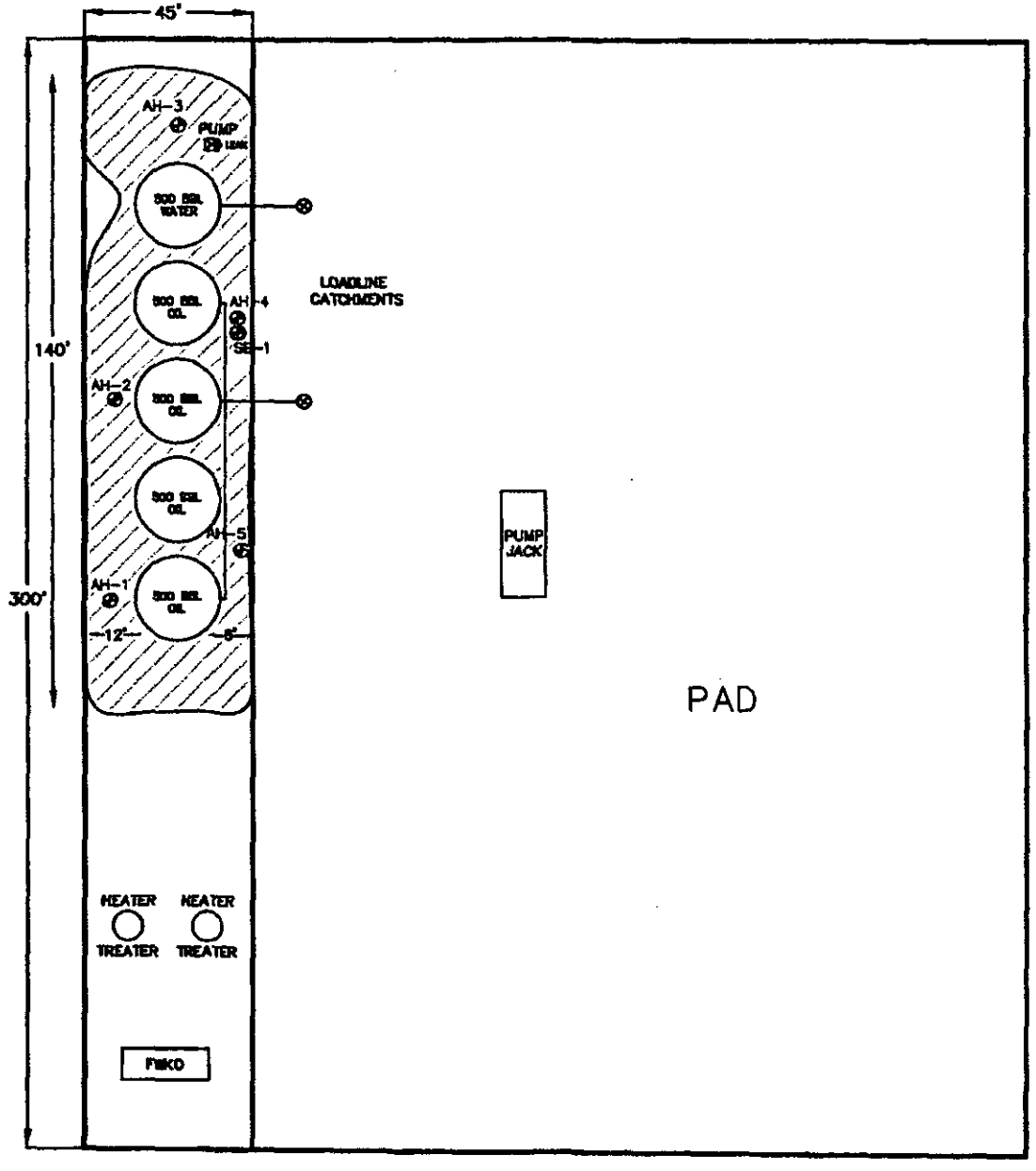
COG OPERATING LLC

TOPOGRAPHIC MAP

Scale 1 : 24,000

1" = 2,000.0 ft

Data Zoom 14-0



SPILL AREA
AUGER HOLE LOCATIONS
SOIL BORE LOCATIONS

NOT TO SCALE

DATE: 5/26/2011
DRWN. BY: IM
FILE:

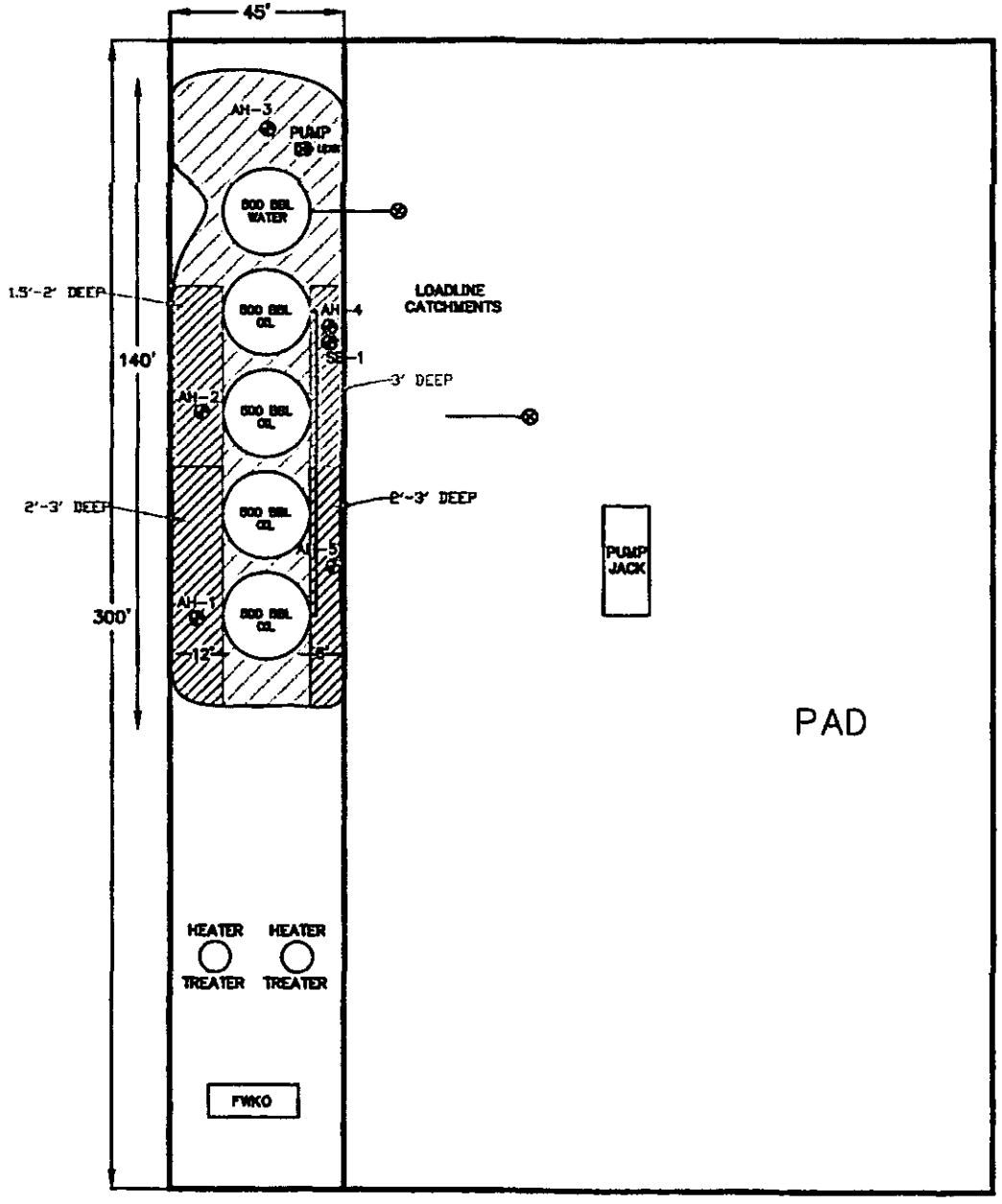
FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

ELECTRA NORTH FED TB

TETRA TECH, INC.
MIDLAND, TEXAS



SPILL AREA
AUGER HOLE LOCATIONS
SOIL BORE LOCATIONS

NOT TO SCALE

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

ELECTRA NORTH FED TB

TETRA TECH, INC.
MIDLAND, TEXAS

DATE: 5/26/2011
DWN. BY: IM
FILE:

Tables

Table 1
COG Operating LLC.
ELECTRA NORTH FEDERAL TANK BATTERY
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-1	9/15/2010	0-1'		X		<10.0	<50.0	<50.0	-	-	-	-	17,500
	"	1-1.5'		X		-	-	-	-	-	-	-	12,900
	"	2-2.5'		X		-	-	-	-	-	-	-	7,640
	"	3-3.5'		X		-	-	-	-	-	-	-	4,820
	"	4-4.5'		X		-	-	-	-	-	-	-	5,550
	"	5-5.5'		X		-	-	-	-	-	-	-	5,860
AH-2	9/15/2010	0-1'		X		<20.0	254	254	<0.200	<0.200	<0.200	<0.200	1,470
	"	1-1.5'		X		-	-	-	-	-	-	-	1,110
	"	2-2.5'		X		-	-	-	-	-	-	-	<200
	"	3-3.5'		X		-	-	-	-	-	-	-	<200
	"	4-4.5'		X		-	-	-	-	-	-	-	<200
	"	5-5.5'		X		-	-	-	-	-	-	-	<200
	"	6-6.5'		X		-	-	-	-	-	-	-	499
AH-3	9/15/2010	0-1'		X		<2.00	<50.0	<50.0	-	-	-	-	<200
	"	1-1.5'		X		-	-	-	-	-	-	-	<200
	"	2-2.5'		X		-	-	-	-	-	-	-	<200
	"	3-3.5'		X		-	-	-	-	-	-	-	<200
	"	4-4.5'		X		-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
ELECTRA NORTH FEDERAL TANK BATTERY
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-4	9/15/2010	0-1'		X		757	3,770	4,527	3.48	29.6	17.6	61.5	7,750
	"	1-1.5'		X		-	-	-	2.62	12.3	2.67	34.1	4,610
	"	2-2.5'		X		-	-	-	0.217	2.01	0.926	7.07	7,380
	"	3-3.5'		X		-	-	-	-	-	-	-	3,150
	"	4-4.5'		X		-	-	-	-	-	-	-	2,410
	"	5-5.5'		X		-	-	-	-	-	-	-	2,500
	"	6-6.5'		X		-	-	-	-	-	-	-	343
	"	7-7.5'		X		-	-	-	-	-	-	-	3,270
SB-1	3/3/2011	0-1'		X		-	-	-	-	-	-	-	<200
	"	3'		X		-	-	-	-	-	-	-	<200
	"	5'		X		-	-	-	-	-	-	-	4,860
	"	7'		X		-	-	-	-	-	-	-	13,300
	"	10'		X		-	-	-	-	-	-	-	208
	"	15'		X		-	-	-	-	-	-	-	612
	"	20'		X		-	-	-	-	-	-	-	<200
	"	25'		X		-	-	-	-	-	-	-	<200
	"	30'		X		-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
ELECTRA NORTH FEDERAL TANK BATTERY
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-5	9/15/2010	0-1'		X		<20.0	424	424	<0.200	<0.200	<0.200	<0.200	1,280
	"	1-1.5'		X		-	-	-			-		2,650
	"	2-2.5'		X		-	-	-		-	-	-	8,870
	"	3-3.5'		X		-	-	-	-	-	-	-	6,280
	"	4-4.5'		X		-	-	-	-	-	-	-	4,420
	"	5-5.5'		X		-	-	-	-	-	-	-	7,540
	"	6-6.5'		X		-	-	-	-	-	-	-	<200
	"	7-7.5'		X		-	-	-	-	-	-	-	<200
	"	8-8.5'		X		-	-	-	-	-	-	-	<200

BEB Below Excavation Bottom

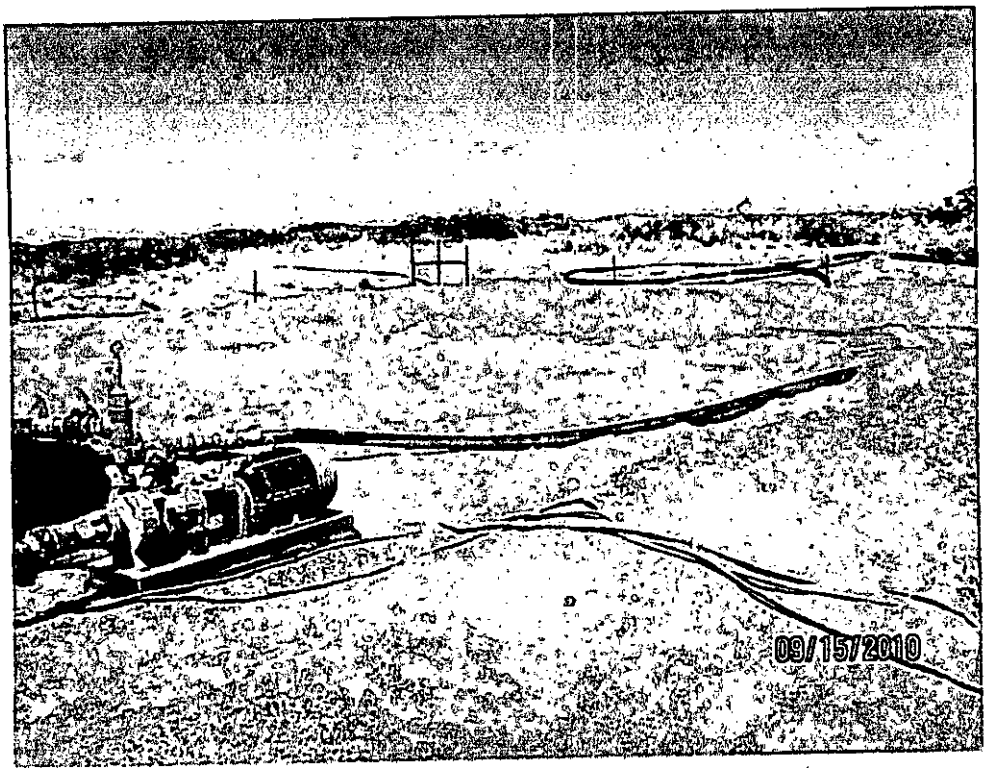
(–) Not Analyzed

Proposed Excavated Depth

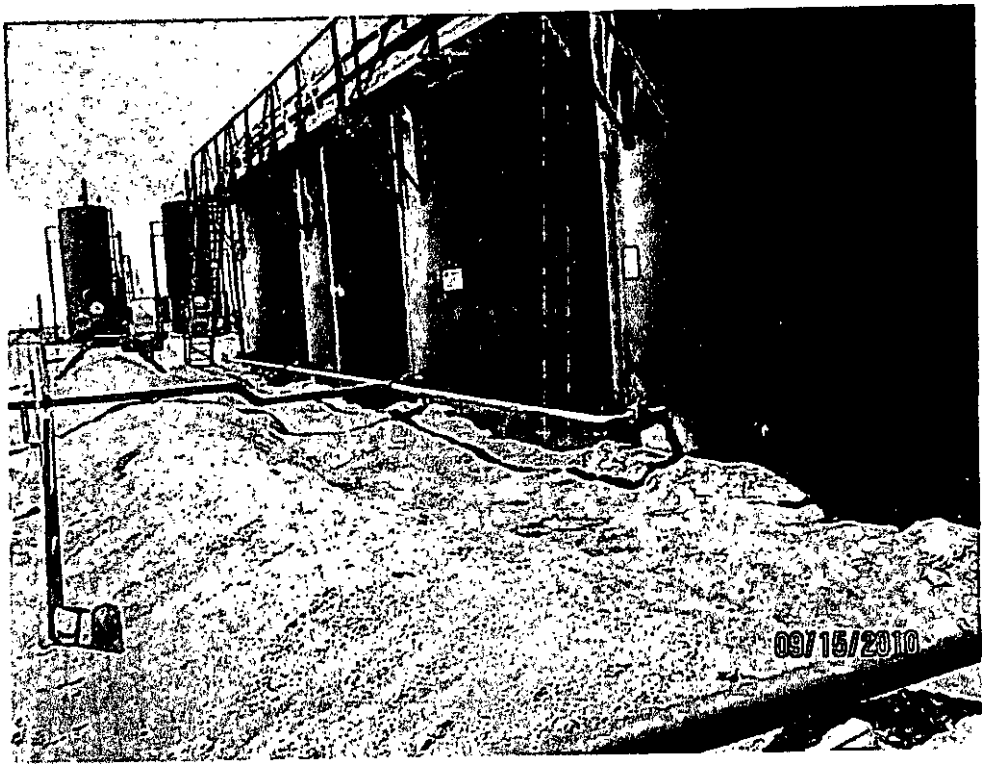
Photos

COG Operating LLC
Electra North Federal TB
Eddy County, New Mexico

TETRA TECH



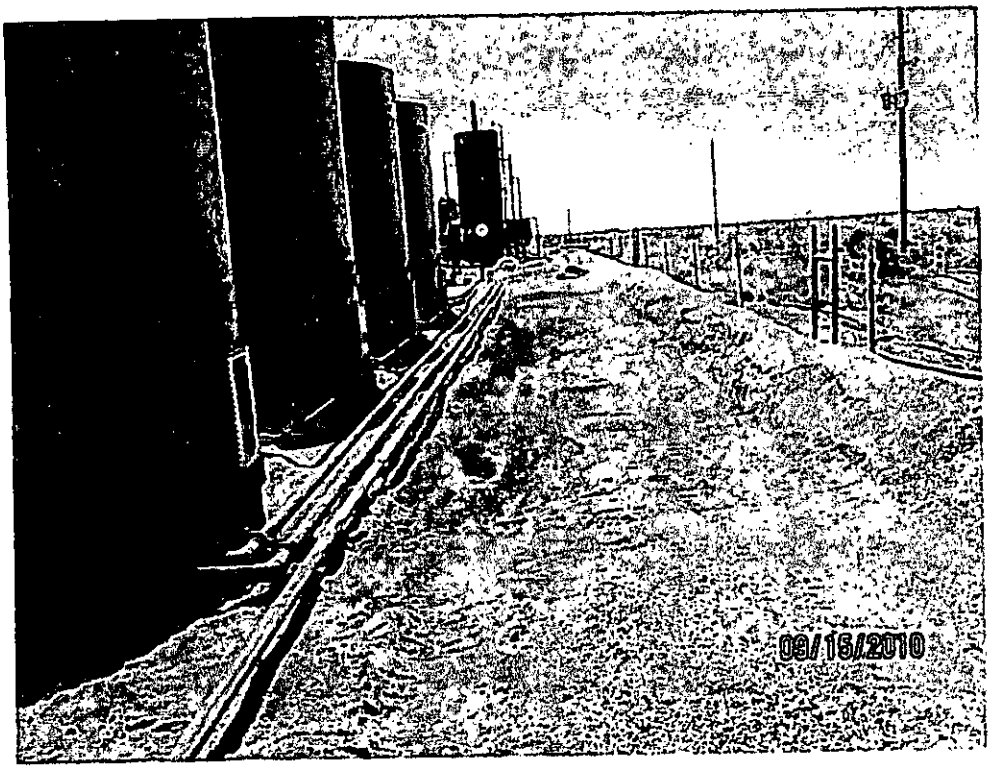
View West – AH-3



View South – AH-4 and 5

COG Operating LLC
Electra North Federal TB
Eddy County, New Mexico

TETRA TECH



View South East – AH-2 and 1

Appendix A

0677

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 Repor

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Electra North Federal Tank Battery	Facility Type	Tank Battery

Surface Owner Federal	Mineral Owner	Lease No. NMNM-0467931

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	10	17S	30E					Eddy

Latitude 32 51.201 **Longitude** 103 57.543

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 55bbls	Volume Recovered 50bbls
Source of Release Water transfer pump	Date and Hour of Occurrence 09/01/2010	Date and Hour of Discovery 09/01/2010 8:00a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher—OCD	
By Whom? Josh Russo	Date and Hour 09/01/2010 9:10 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

*If a Watercourse was Impacted, Describe Fully.**

Describe Cause of Problem and Remedial Action Taken.*

The threads on the swedge at the water transfer pump broke off due to corrosion. The old swedge has been replaced with a heavy duty plastic coated swedge.

Describe Area Affected and Cleanup Action Taken.*

Initially 55bbls of produced water was released from the water transfer pump and all fluid was contained inside the facility dike walls. We were able to recover 50bbls with a vacuum truck. The dimensions of the spill areas were a 20' x 20' area to the north of the pump and a 4' x 40' area to the south of the pump. (The closest well location to the release is the Electra Federal #31, API# 30-015-36467, Unit B, Sec10-T17S-R30E, Eddy County, NM, 1170' FNL 2310' FEL). Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Josh Russo	Approved by District Supervisor:
Title: HSE Coordinator	Approval Date: / Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval: / Attached ☐
Date: 09/07/2010 Phone: 432-212-2399	

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Electra North Federal Tank Battery
Eddy County, New Mexico

---

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19 110	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 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

16 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31 290	32	33	34	35

17 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
16	17	16	15	14	13
19	20	21	22 80	23	24
30	29 210 209'	28	27	26	25
31	32	33	34	35 153	36

17 South 30 East

6	5	4	3	2	1
7	8	9	10 Site	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

17 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31	32	33	34 271	35

18 South 29 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

18 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

18 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14 317
19	20	21	22	23
30	29	28	27	26
31	32	33	34	35 281

- *New Mexico State Engineers Well Reports*
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data

Appendix C

Summary Report

Tom Franklin
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: October 1, 2010

Work Order: 10091634

Project Location: Eddy County, NM
Project Name: COG/Electra North Federal TB
Project Number: 114-6400677

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
244938	AH-1 0-1	soil	2010-09-15	00:00	2010-09-16
244939	AH-1 1-1.5	soil	2010-09-15	00:00	2010-09-16
244940	AH-1 2-2.5	soil	2010-09-15	00:00	2010-09-16
244941	AH-1 3-3.5	soil	2010-09-15	00:00	2010-09-16
244942	AH-1 4-4.5	soil	2010-09-15	00:00	2010-09-16
244943	AH-1 5-5.5	soil	2010-09-15	00:00	2010-09-16
244944	AH-2 0-1	soil	2010-09-15	00:00	2010-09-16
244945	AH-2 1-1.5	soil	2010-09-15	00:00	2010-09-16
244946	AH-2 2-2.5	soil	2010-09-15	00:00	2010-09-16
244947	AH-2 3-3.5	soil	2010-09-15	00:00	2010-09-16
244948	AH-2 4-4.5	soil	2010-09-15	00:00	2010-09-16
244949	AH-2 5-5.5	soil	2010-09-15	00:00	2010-09-16
244950	AH-2 6-6.5	soil	2010-09-15	00:00	2010-09-16
244951	AH-3 0-1	soil	2010-09-15	00:00	2010-09-16
244952	AH-3 1-1.5	soil	2010-09-15	00:00	2010-09-16
244953	AH-3 2-2.5	soil	2010-09-15	00:00	2010-09-16
244954	AH-3 3-3.5	soil	2010-09-15	00:00	2010-09-16
244955	AH-3 4-4.5	soil	2010-09-15	00:00	2010-09-16
244956	AH-4 0-1	soil	2010-09-15	00:00	2010-09-16
244957	AH-4 1-1.5	soil	2010-09-15	00:00	2010-09-16
244958	AH-4 2-2.5	soil	2010-09-15	00:00	2010-09-16
244959	AH-4 3-3.5	soil	2010-09-15	00:00	2010-09-16
244960	AH-4 4-4.5	soil	2010-09-15	00:00	2010-09-16
244961	AH-4 5-5.5	soil	2010-09-15	00:00	2010-09-16
244962	AH-4 6-6.5	soil	2010-09-15	00:00	2010-09-16
244963	AH-4 7-7.5	soil	2010-09-15	00:00	2010-09-16
244964	AH-5 0-1	soil	2010-09-15	00:00	2010-09-16
244965	AH-5 1-1.5	soil	2010-09-15	00:00	2010-09-16
244966	AH-5 2-2.5	soil	2010-09-15	00:00	2010-09-16
244967	AH-5 3-3.5	soil	2010-09-15	00:00	2010-09-16

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
244968	AH-5 4-4.5	soil	2010-09-15	00:00	2010-09-16
244969	AH-5 5-5.5	soil	2010-09-15	00:00	2010-09-16
244970	AH-5 6-6.5	soil	2010-09-15	00:00	2010-09-16
244971	AH-5 7-7.5	soil	2010-09-15	00:00	2010-09-16
244972	AH-5 8-8.5	soil	2010-09-15	00:00	2010-09-16

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
244938 - AH-1 0-1					<50.0	<10.0
244944 - AH-2 0-1	<0.200	<0.200	<0.200	<0.200	**254**	<20.0
244951 - AH-3 0-1					<50.0	<2.00
244956 - AH-4 0-1	**3.48**	**29.6**	**17.6**	**61.5**	**3770**	**757**
244957 - AH-4 1-1.5	**2.62**	**12.3**	**2.67**	**34.1**		
244958 - AH-4 2-2.5	**0.217**	**2.01**	**0.926**	**7.07**		
244964 - AH-5 0-1	<0.200	<0.200	<0.200	<0.200	**424**	<20.0

Sample: 244938 - AH-1 0-1

Param	Flag	Result	Units	RL
Chloride		**17500**	mg/Kg	4.00

Sample: 244939 - AH-1 1-1.5

Param	Flag	Result	Units	RL
Chloride		**12900**	mg/Kg	4.00

Sample: 244940 - AH-1 2-2.5

Param	Flag	Result	Units	RL
Chloride		**7640**	mg/Kg	4.00

Sample: 244941 - AH-1 3-3.5

Param	Flag	Result	Units	RL
Chloride		**4820**	mg/Kg	4.00

Sample: 244942 - AH-1 4-4.5

Param	Flag	Result	Units	RL
Chloride		**5550**	mg/Kg	4.00

Sample: 244943 - AH-1 5-5.5

Param	Flag	Result	Units	RL
Chloride		5860	mg/Kg	4.00

Sample: 244944 - AH-2 0-1

Param	Flag	Result	Units	RL
Chloride		1470	mg/Kg	4.00

Sample: 244945 - AH-2 1-1.5

Param	Flag	Result	Units	RL
Chloride		1110	mg/Kg	4.00

Sample: 244946 - AH-2 2-2.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244947 - AH-2 3-3.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244948 - AH-2 4-4.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244949 - AH-2 5-5.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244950 - AH-2 6-6.5

Param	Flag	Result	Units	RL
Chloride		499	mg/Kg	4.00

Sample: 244951 - AH-3 0-1

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244952 - AH-3 1-1.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244953 - AH-3 2-2.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244954 - AH-3 3-3.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244955 - AH-3 4-4.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244956 - AH-4 0-1

Param	Flag	Result	Units	RL
Chloride		**7750**	mg/Kg	4.00

Sample: 244957 - AH-4 1-1.5

Param	Flag	Result	Units	RL
Chloride		**4610**	mg/Kg	4.00

Sample: 244958 - AH-4 2-2.5

Param	Flag	Result	Units	RL
Chloride		**7380**	mg/Kg	4.00

Sample: 244959 - AH-4 3-3.5

Param	Flag	Result	Units	RL
Chloride		3150	mg/Kg	4.00

Sample: 244960 - AH-4 4-4.5

Param	Flag	Result	Units	RL
Chloride		2410	mg/Kg	4.00

Sample: 244961 - AH-4 5-5.5

Param	Flag	Result	Units	RL
Chloride		2500	mg/Kg	4.00

Sample: 244962 - AH-4 6-6.5

Param	Flag	Result	Units	RL
Chloride		343	mg/Kg	4.00

Sample: 244963 - AH-4 7-7.5

Param	Flag	Result	Units	RL
Chloride		3270	mg/Kg	4.00

Sample: 244964 - AH-5 0-1

Param	Flag	Result	Units	RL
Chloride		1280	mg/Kg	4.00

Sample: 244965 - AH-5 1-1.5

Param	Flag	Result	Units	RL
Chloride		2650	mg/Kg	4.00

Sample: 244966 - AH-5 2-2.5

Param	Flag	Result	Units	RL
Chloride		8870	mg/Kg	4.00

Sample: 244967 - AH-5 3-3.5

Param	Flag	Result	Units	RL
Chloride		6280	mg/Kg	4.00

Sample: 244968 - AH-5 4-4.5

Param	Flag	Result	Units	RL
Chloride		4420	mg/Kg	4.00

Sample: 244969 - AH-5 5-5.5

Param	Flag	Result	Units	RL
Chloride		7540	mg/Kg	4.00

Sample: 244970 - AH-5 6-6.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244971 - AH-5 7-7.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 244972 - AH-5 8-8.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Summary Report

Tom Franklin
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: March 17, 2011
Work Order: 11030726

Project Location: Eddy County, NM
Project Name: COG/Electra Tank Battery
Project Number: 114-6400677

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
259786	SB-1 0-1'	soil	2011-03-03	00:00	2011-03-04
259787	SB-1 3'	soil	2011-03-03	00:00	2011-03-04
259788	SB-1 5'	soil	2011-03-03	00:00	2011-03-04
259789	SB-1 7'	soil	2011-03-03	00:00	2011-03-04
259790	SB-1 10'	soil	2011-03-03	00:00	2011-03-04
259791	SB-1 15'	soil	2011-03-03	00:00	2011-03-04
259792	SB-1 20'	soil	2011-03-03	00:00	2011-03-04
259793	SB-1 25'	soil	2011-03-03	00:00	2011-03-04
259794	SB-1 30'	soil	2011-03-03	00:00	2011-03-04

Sample: 259786 - SB-1 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 259787 - SB-1 3'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 259788 - SB-1 5'

continued ...

sample 259788 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		4860	mg/Kg	4.00

Sample: 259789 - SB-1 7'

Param	Flag	Result	Units	RL
Chloride		13300	mg/Kg	4.00

Sample: 259790 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		298	mg/Kg	4.00

Sample: 259791 - SB-1 15'

Param	Flag	Result	Units	RL
Chloride		612	mg/Kg	4.00

Sample: 259792 - SB-1 20'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 259793 - SB-1 25'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 259794 - SB-1 30'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

TRACEANALYSIS, INC.

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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: November 15, 2011

Work Order: 11110418

Project Location: Eddy Co., NM
Project Name: Electra North Tank Battery
Project Number: 114-6401070

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
281592	AH-1 0-1' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281593	AH-1 1-1.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281594	AH-1 2-2.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281595	AH-1 3-3.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281596	AH-1 4-4.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281597	AH-1 5-5.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281598	AH-1 6-6.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281599	AH-1 7-7.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281600	AH-2 0-1' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281601	AH-2 1-1.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281602	AH-2 2-2.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281603	AH-2 3-3.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281605	AH-3 0-1' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281606	AH-3 1-1.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281607	AH-3 2-2.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281608	AH-4 0-1' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281609	AH-4 1-1.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281610	AH-4 2-2.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
281611	AH-4 3-3.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281612	AH-4 4-4.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281613	AH-4 5-5.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281614	AH-4 6-6.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03
281615	AH-4 7-7.5' (2' BEB)	soil	2011-11-01	00:00	2011-11-03

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.

Michael Abel

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

Report Contents

Case Narrative

Samples for project Electra North Tank Battery were received by TraceAnalysis, Inc. on 2011-11-03 and assigned to work order 11110418. Samples for work order 11110418 were received intact at a temperature of 4.3 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	73143	2011-11-04 at 12:45	86134	2011-11-05 at 02:47
BTEX	S 8021B	73217	2011-11-08 at 09:45	86281	2011-11-09 at 13:49
BTEX	S 8021B	73286	2011-11-10 at 13:55	86315	2011-11-10 at 15:39
BTEX	S 8021B	73337	2011-11-11 at 11:35	86360	2011-11-11 at 12:15
Chloride (Titration)	SM 4500-Cl B	73222	2011-11-07 at 09:37	86239	2011-11-09 at 11:03
Chloride (Titration)	SM 4500-Cl B	73222	2011-11-07 at 09:37	86240	2011-11-09 at 11:04
Chloride (Titration)	SM 4500-Cl B	73222	2011-11-07 at 09:37	86241	2011-11-09 at 11:04
TPH DRO - NEW	S 8015 D	73148	2011-11-04 at 13:42	86138	2011-11-04 at 13:42
TPH DRO - NEW	S 8015 D	73224	2011-11-08 at 09:48	86234	2011-11-08 at 09:48
TPH DRO - NEW	S 8015 D	73262	2011-11-09 at 10:39	86283	2011-11-09 at 10:39
TPH DRO - NEW	S 8015 D	73341	2011-11-11 at 11:02	86366	2011-11-11 at 11:02
TPH DRO - NEW	S 8015 D	73404	2011-11-14 at 14:09	86448	2011-11-14 at 14:09
TPH GRO	S 8015 D	73143	2011-11-04 at 12:45	86135	2011-11-05 at 03:14
TPH GRO	S 8015 D	73217	2011-11-08 at 09:45	86282	2011-11-09 at 14:16
TPH GRO	S 8015 D	73286	2011-11-10 at 13:55	86316	2011-11-10 at 16:05
TPH GRO	S 8015 D	73337	2011-11-11 at 11:35	86361	2011-11-11 at 12:43

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 11110418 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.

Analytical Report

Sample: 281592 - AH-1 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86134	Date Analyzed:	2011-11-05	Analyzed By:	AG
Prep Batch:	73143	Sample Preparation:	2011-11-04	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	Qr	1	**59.6**	mg/Kg	50	0.0200
Toluene	Qr	Qr	1	**218**	mg/Kg	50	0.0200
Ethylbenzene	Qr	Qr	1	**144**	mg/Kg	50	0.0200
Xylene	Qr	Qr	1	**173**	mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			47.3	mg/Kg	50	50.0	95	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			73.1	mg/Kg	50	50.0	146	70.6 - 179

Sample: 281592 - AH-1 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**610**	mg/Kg	50	4.00

Sample: 281592 - AH-1 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86138	Date Analyzed:	2011-11-04	Analyzed By:	kg
Prep Batch:	73148	Sample Preparation:	2011-11-04	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**8020**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		486	mg/Kg	5	100	486	67.5 - 147.1

Sample: 281592 - AH-1 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**9190**	mg/Kg	200	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			194	mg/Kg	200	200	97	30 - 134.6
4-Bromofluorobenzene (4-BFB)			244	mg/Kg	200	200	122	22.4 - 149

Sample: 281593 - AH-1 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86281	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**44.8**	mg/Kg	100	0.0200
Toluene		1	**196**	mg/Kg	100	0.0200
Ethylbenzene		1	**144**	mg/Kg	100	0.0200
Xylene		1	**177**	mg/Kg	100	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			97.4	mg/Kg	100	100	97	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			126	mg/Kg	100	100	126	70.6 - 179

Sample: 281593 - AH-1 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1300**	mg/Kg	50	4.00

Sample: 281593 - AH-1 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86234	Date Analyzed:	2011-11-08	Analyzed By:	kg
Prep Batch:	73224	Sample Preparation:	2011-11-08	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO			**8450**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		504	mg/Kg	5	100	504	67.5 - 147.1

Sample: 281593 - AH-1 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO			**8460**	mg/Kg	100	2.00

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr		153	mg/Kg	100	100	153	30 - 134.6
4-Bromofluorobenzene (4-BFB)				145	mg/Kg	100	100	145	22.4 - 149

Sample: 281594 - AH-1 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86281	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70.6 - 179

Sample: 281594 - AH-1 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2920**	mg/Kg	100	4.00

Sample: 281594 - AH-1 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86283	Date Analyzed:	2011-11-09	Analyzed By:	kg
Prep Batch:	73262	Sample Preparation:	2011-11-09	Prepared By:	kg

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			99.5	mg/Kg	1	100	100	67.5 - 147.1

Sample: 281594 - AH-1 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO			**3.35**	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.85	mg/Kg	1	2.00	92	22.4 - 149

Sample: 281595 - AH-1 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5770**	mg/Kg	100	4.00

Sample: 281596 - AH-1 4-4.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5320**	mg/Kg	100	4.00

Sample: 281597 - AH-1 5-5.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4180**	mg/Kg	100	4.00

Sample: 281598 - AH-1 6-6.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3670**	mg/Kg	100	4.00

Sample: 281599 - AH-1 7-7.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U	U	<200	mg/Kg	50	4.00

Sample: 281600 - AH-2 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86134	Date Analyzed:	2011-11-05	Analyzed By:	AG
Prep Batch:	73143	Sample Preparation:	2011-11-04	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	Qr	1	**5.38**	mg/Kg	50	0.0200
Toluene	Qr	Qr	1	**29.2**	mg/Kg	50	0.0200
Ethylbenzene	Qr	Qr	1	**18.8**	mg/Kg	50	0.0200
Xylene	Qr	Qr	1	**29.4**	mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.3	mg/Kg	50	50.0	97	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			53.3	mg/Kg	50	50.0	107	70.6 - 179

Sample: 281600 - AH-2 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**500**	mg/Kg	50	4.00

Sample: 281600 - AH-2 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86138	Date Analyzed:	2011-11-04	Analyzed By:	kg
Prep Batch:	73148	Sample Preparation:	2011-11-04	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**3870**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		324	mg/Kg	5	100	324	67.5 - 147.1

Sample: 281600 - AH-2 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86135	Date Analyzed:	2011-11-05	Analyzed By:	AG
Prep Batch:	73143	Sample Preparation:	2011-11-04	Prepared By:	AG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
GRO		1	**1840**		mg/Kg	50	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.1	mg/Kg	50	50.0	96	30 - 134.6
4-Bromofluorobenzene (4-BFB)			59.2	mg/Kg	50	50.0	118	22.4 - 149

Sample: 281601 - AH-2 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86281	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene		1	**5.68**		mg/Kg	50	0.0200
Toluene		1	**23.7**		mg/Kg	50	0.0200
Ethylbenzene		1	**14.2**		mg/Kg	50	0.0200
Xylene		1	**20.4**		mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			49.2	mg/Kg	50	50.0	98	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			53.7	mg/Kg	50	50.0	107	70.6 - 179

Sample: 281601 - AH-2 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**250**		mg/Kg	50	4.00

Sample: 281601 - AH-2 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86234	Date Analyzed:	2011-11-08	Analyzed By:	kg
Prep Batch:	73224	Sample Preparation:	2011-11-08	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**4140**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		387	mg/Kg	5	100	387	67.5 - 147.1

Sample: 281601 - AH-2 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**1240**	mg/Kg	50	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.5	mg/Kg	50	50.0	97	30 - 134.6
4-Bromofluorobenzene (4-BFB)			52.3	mg/Kg	50	50.0	105	22.4 - 149

Sample: 281602 - AH-2 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86315	Date Analyzed:	2011-11-10	Analyzed By:	AG
Prep Batch:	73286	Sample Preparation:	2011-11-10	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	Qr	1	**3.41**	mg/Kg	20	0.0200
Toluene	Qr	Qr	1	**34.2**	mg/Kg	20	0.0200
Ethylbenzene	Qr	Qr	1	**22.7**	mg/Kg	20	0.0200

continued ...

sample 281602 continued ...

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Xylene	Qr	Qr	1	**37.1**	mg/Kg	20	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			19.7	mg/Kg	20	20.0	98	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			25.8	mg/Kg	20	20.0	129	70.6 - 179

Sample: 281602 - AH-2 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U	U		<200	mg/Kg	50	4.00

Sample: 281602 - AH-2 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86366	Date Analyzed:	2011-11-11	Analyzed By:	kg
Prep Batch:	73341	Sample Preparation:	2011-11-11	Prepared By:	kg

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
DRO			1	**3770**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		339	mg/Kg	5	100	339	67.5 - 147.1

Sample: 281602 - AH-2 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86316	Date Analyzed:	2011-11-10	Analyzed By:	AG
Prep Batch:	73286	Sample Preparation:	2011-11-10	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**1320**	mg/Kg	20	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			19.5	mg/Kg	20	20.0	98	30 - 134.6
4-Bromofluorobenzene (4-BFB)			29.5	mg/Kg	20	20.0	148	22.4 - 149

Sample: 281603 - AH-2 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86360	Date Analyzed:	2011-11-11	Analyzed By:	AG
Prep Batch:	73337	Sample Preparation:	2011-11-11	Prepared By:	AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.85	mg/Kg	5	5.00	97	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			5.07	mg/Kg	5	5.00	101	70.6 - 179

Sample: 281603 - AH-2 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U	U		<200	mg/Kg	50	4.00

Sample: 281603 - AH-2 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86448	Date Analyzed:	2011-11-14	Analyzed By:	kg
Prep Batch:	73404	Sample Preparation:	2011-11-14	Prepared By:	kg

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	Qs	1	**1360**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		220	mg/Kg	1	100	220	67.5 - 147.1

Sample: 281603 - AH-2 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86361	Date Analyzed:	2011-11-11	Analyzed By:	AG
Prep Batch:	73337	Sample Preparation:	2011-11-11	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs	Qs	1	**47.3**	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.79	mg/Kg	5	5.00	96	30 - 134.6
4-Bromofluorobenzene (4-BFB)			4.74	mg/Kg	5	5.00	95	22.4 - 149

Sample: 281605 - AH-3 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86281	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.100	mg/Kg	5	0.0200
Toluene			1	**1.16**	mg/Kg	5	0.0200
Ethylbenzene			1	**1.59**	mg/Kg	5	0.0200

continued ...

sample 281605 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene		1	**1.92**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5.12	mg/Kg	5	5.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			5.56	mg/Kg	5	5.00	111	70.6 - 179

Sample: 281605 - AH-3 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2120**	mg/Kg	100	4.00

Sample: 281605 - AH-3 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86138	Date Analyzed:	2011-11-04	Analyzed By:	kg
Prep Batch:	73148	Sample Preparation:	2011-11-04	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**814**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			130	mg/Kg	1	100	130	67.5 - 147.1

Sample: 281605 - AH-3 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86135	Date Analyzed:	2011-11-05	Analyzed By:	AG
Prep Batch:	73143	Sample Preparation:	2011-11-04	Prepared By:	AG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
GRO			505		mg/Kg	50	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.8	mg/Kg	50	50.0	98	30 - 134.6
4-Bromofluorobenzene (4-BFB)			47.8	mg/Kg	50	50.0	96	22.4 - 149

Sample: 281606 - AH-3 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			278		mg/Kg	50	4.00

Sample: 281607 - AH-3 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			844		mg/Kg	100	4.00

Sample: 281608 - AH-4 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86134	Date Analyzed:	2011-11-05	Analyzed By:	AG
Prep Batch:	73143	Sample Preparation:	2011-11-04	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	Qr	1	**25.1**	mg/Kg	50	0.0200
Toluene	Qr	Qr	1	**155**	mg/Kg	50	0.0200
Ethylbenzene	Qr	Qr	1	**109**	mg/Kg	50	0.0200
Xylene	Qr	Qr	1	**133**	mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.9	mg/Kg	50	50.0	98	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			69.3	mg/Kg	50	50.0	139	70.6 - 179

Sample: 281608 - AH-4 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**571**	mg/Kg	50	4.00

Sample: 281608 - AH-4 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86138	Date Analyzed:	2011-11-04	Analyzed By:	kg
Prep Batch:	73148	Sample Preparation:	2011-11-04	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**11400**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		662	mg/Kg	5	100	662	67.5 - 147.1

Sample: 281608 - AH-4 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**6720**	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	145	mg/Kg	100	100	145	30 - 134.6
4-Bromofluorobenzene (4-BFB)			141	mg/Kg	100	100	141	22.4 - 149

Sample: 281609 - AH-4 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86281	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**20.8**	mg/Kg	50	0.0200
Toluene		1	**90.3**	mg/Kg	50	0.0200
Ethylbenzene		1	**75.8**	mg/Kg	50	0.0200
Xylene		1	**103**	mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.5	mg/Kg	50	50.0	97	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			66.2	mg/Kg	50	50.0	132	70.6 - 179

Sample: 281609 - AH-4 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**497**	mg/Kg	50	4.00

Sample: 281609 - AH-4 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86234	Date Analyzed:	2011-11-08	Analyzed By:	kg
Prep Batch:	73224	Sample Preparation:	2011-11-08	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**6380**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		426	mg/Kg	5	100	426	67.5 - 147.1

Sample: 281609 - AH-4 1-1.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**3760**	mg/Kg	50	2.00

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr		92.5	mg/Kg	50	50.0	185	30 - 134.6
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr		75.9	mg/Kg	50	50.0	152	22.4 - 149

Sample: 281610 - AH-4 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86281	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**19.0**	mg/Kg	100	0.0200
Toluene		1	**55.5**	mg/Kg	100	0.0200
Ethylbenzene		1	**67.4**	mg/Kg	100	0.0200

continued ...

sample 281610 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene		,	**103**	mg/Kg	100	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			98.0	mg/Kg	100	100	98	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			116	mg/Kg	100	100	116	70.6 - 179

Sample: 281610 - AH-4 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**670**	mg/Kg	50	4.00

Sample: 281610 - AH-4 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86283	Date Analyzed:	2011-11-09	Analyzed By:	kg
Prep Batch:	73262	Sample Preparation:	2011-11-09	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**9100**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		519	mg/Kg	5	100	519	67.5 - 147.1

Sample: 281610 - AH-4 2-2.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86282	Date Analyzed:	2011-11-09	Analyzed By:	AG
Prep Batch:	73217	Sample Preparation:	2011-11-09	Prepared By:	AG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
GRO		1	**4120**		mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			96.6	mg/Kg	100	100	97	30 - 134.6
4-Bromofluorobenzene (4-BFB)			127	mg/Kg	100	100	127	22.4 - 149

Sample: 281611 - AH-4 3-3.5' (2' BEB)

Laboratory:	*Midland*				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86315	Date Analyzed:	2011-11-10	Analyzed By:	AG
Prep Batch:	73286	Sample Preparation:	2011-11-10	Prepared By:	AG

Parameter		Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	Qr	Qr	1	<2.00		mg/Kg	100	0.0200
Toluene	Qr	Qr	1	**24.4**		mg/Kg	100	0.0200
Ethylbenzene	Qr	Qr	1	**47.7**		mg/Kg	100	0.0200
Xylene	Qr	Qr	1	**77.8**		mg/Kg	100	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			97.8	mg/Kg	100	100	98	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			112	mg/Kg	100	100	112	70.6 - 179

Sample: 281611 - AH-4 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**641**		mg/Kg	50	4.00

Sample: 281611 - AH-4 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86366	Date Analyzed:	2011-11-11	Analyzed By:	kg
Prep Batch:	73341	Sample Preparation:	2011-11-11	Prepared By:	kg

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		1	**8060**	mg/Kg	5	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane [Qsr]	Qsr		496	mg/Kg	5	100	496	67.5 - 147.1

Sample: 281611 - AH-4 3-3.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86316	Date Analyzed:	2011-11-10	Analyzed By:	AG
Prep Batch:	73286	Sample Preparation:	2011-11-10	Prepared By:	AG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**3120**	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			95.8	mg/Kg	100	100	96	30 - 134.6
4-Bromofluorobenzene (4-BFB)			112	mg/Kg	100	100	112	22.4 - 149

Sample: 281612 - AH-4 4-4.5' (2' BEB)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	86315	Date Analyzed:	2011-11-10	Analyzed By:	AG
Prep Batch:	73286	Sample Preparation:	2011-11-10	Prepared By:	AG

Parameter		Flag	Cert	Result	RL Units	Dilution	RL
Benzene	[Qr,U]	Qr,U	1	<0.0200	mg/Kg	1	0.0200
Toluene	[Qr,U]	Qr,U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	[Qr,U]	Qr,U	1	<0.0200	mg/Kg	1	0.0200

continued ...

sample 281612 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	Qr,U	Qr,U	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.09	mg/Kg	1	2.00	104	70.6 - 179

Sample: 281612 - AH-4 4-4.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**914**	mg/Kg	50	4.00

Sample: 281612 - AH-4 4-4.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	86366	Date Analyzed:	2011-11-11	Analyzed By:	kg
Prep Batch:	73341	Sample Preparation:	2011-11-11	Prepared By:	kg

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO			**149**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			94.8	mg/Kg	1	100	95	67.5 - 147.1

Sample: 281612 - AH-4 4-4.5' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	86316	Date Analyzed:	2011-11-10	Analyzed By:	AG
Prep Batch:	73286	Sample Preparation:	2011-11-10	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**9.87**	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	30 - 134.6
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	102	22.4 - 149

Sample: 281613 - AH-4 5-5.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86241	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4260**	mg/Kg	100	4.00

Sample: 281614 - AH-4 6-6.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86241	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**6630**	mg/Kg	100	4.00

Sample: 281615 - AH-4 7-7.5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86241	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	Sample Preparation:	2011-11-07	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3780**	mg/Kg	100	4.00

Method Blanks

Method Blank (1) QC Batch: 86134

QC Batch: 86134 | Date Analyzed: 2011-11-05 | Analyzed By: AG
Prep Batch: 73143 | QC Preparation: 2011-11-04 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.0118	mg/Kg	0.02
Toluene		1	<0.00600	mg/Kg	0.02
Ethylbenzene		1	<0.00850	mg/Kg	0.02
Xylene		1	<0.00613	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.67	mg/Kg	1	2.00	84	48.4 - 123.1

Method Blank (1) QC Batch: 86135

QC Batch: 86135 | Date Analyzed: 2011-11-05 | Analyzed By: AG
Prep Batch: 73143 | QC Preparation: 2011-11-04 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	0.915	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	52.4 - 130

Method Blank (1) QC Batch: 86138

QC Batch: 86138 | Date Analyzed: 2011-11-04 | Analyzed By: kg
Prep Batch: 73148 | QC Preparation: 2011-11-04 | Prepared By: kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			114	mg/Kg	1	100	114	52.7 - 133.8

Method Blank (1) QC Batch: 86234

QC Batch:	86234	Date Analyzed:	2011-11-08	Analyzed By:	kg
Prep Batch:	73224	QC Preparation:	2011-11-08	Prepared By:	kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			99.3	mg/Kg	1	100	99	52.7 - 133.8

Method Blank (1) QC Batch: 86239

QC Batch:	86239	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	QC Preparation:	2011-11-07	Prepared By:	AR

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

Method Blank (1) QC Batch: 86240

QC Batch:	86240	Date Analyzed:	2011-11-09	Analyzed By:	AR
Prep Batch:	73222	QC Preparation:	2011-11-07	Prepared By:	AR

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

Method Blank (1) QC Batch: 86241

QC Batch: 86241 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

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

Method Blank (1) QC Batch: 86281

QC Batch: 86281 | Date Analyzed: 2011-11-09 | Analyzed By: AG
Prep Batch: 73217 | QC Preparation: 2011-11-08 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.0118	mg/Kg	0.02
Toluene		1	<0.00600	mg/Kg	0.02
Ethylbenzene		1	<0.00850	mg/Kg	0.02
Xylene		1	<0.00613	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	48.4 - 123.1

Method Blank (1) QC Batch: 86282

QC Batch: 86282 | Date Analyzed: 2011-11-09 | Analyzed By: AG
Prep Batch: 73217 | QC Preparation: 2011-11-08 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.00	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	52.4 - 130

Method Blank (1) QC Batch: 86283

QC Batch: 86283 | Date Analyzed: 2011-11-09 | Analyzed By: kg
Prep Batch: 73262 | QC Preparation: 2011-11-09 | Prepared By: kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			90.4	mg/Kg	1	100	90	52.7 - 133.8

Method Blank (1) QC Batch: 86315

QC Batch: 86315 | Date Analyzed: 2011-11-10 | Analyzed By: AG
Prep Batch: 73286 | QC Preparation: 2011-11-10 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.0118	mg/Kg	0.02
Toluene		1	<0.00600	mg/Kg	0.02
Ethylbenzene		1	<0.00850	mg/Kg	0.02
Xylene		1	<0.00613	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	48.4 - 123.1

Method Blank (1) QC Batch: 86316

QC Batch: 86316 | Date Analyzed: 2011-11-10 | Analyzed By: AG
Prep Batch: 73286 | QC Preparation: 2011-11-10 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.26	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	67.6 - 150

continued ...

method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	52.4 - 130

Method Blank (1) QC Batch: 86360

QC Batch: 86360 | Date Analyzed: 2011-11-11 | Analyzed By: AG
Prep Batch: 73337 | QC Preparation: 2011-11-11 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.0118	mg/Kg	0.02
Toluene		1	<0.00600	mg/Kg	0.02
Ethylbenzene		1	<0.00850	mg/Kg	0.02
Xylene		1	<0.00613	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	48.4 - 123.1

Method Blank (1) QC Batch: 86361

QC Batch: 86361 | Date Analyzed: 2011-11-11 | Analyzed By: AG
Prep Batch: 73337 | QC Preparation: 2011-11-11 | Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.11	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	52.4 - 130

Method Blank (1) QC Batch: 86366

QC Batch: 86366 | Date Analyzed: 2011-11-11 | Analyzed By: kg
Prep Batch: 73341 | QC Preparation: 2011-11-11 | Prepared By: kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			91.1	mg/Kg	1	100	91	52.7 - 133.8

Method Blank (1) QC Batch: 86448

QC Batch: 86448 | Date Analyzed: 2011-11-14 | Analyzed By: kg
Prep Batch: 73404 | QC Preparation: 2011-11-14 | Prepared By: kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			93.2	mg/Kg	1	100	93	52.7 - 133.8

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86134 | Date Analyzed: 2011-11-05 | Analyzed By: AG
Prep Batch: 73143 | QC Preparation: 2011-11-04 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.03	mg/Kg	1	2.00	<0.0118	102	77.4 - 121.7
Toluene		1	1.98	mg/Kg	1	2.00	<0.00600	99	88.6 - 121.6
Ethylbenzene		1	1.93	mg/Kg	1	2.00	<0.00850	96	74.3 - 117.9
Xylene		1	5.83	mg/Kg	1	6.00	<0.00613	97	73.4 - 118.8

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	2.01	mg/Kg	1	2.00	<0.0118	100	77.4 - 121.7	1	20
Toluene		1	1.97	mg/Kg	1	2.00	<0.00600	98	88.6 - 121.6	0	20
Ethylbenzene		1	1.89	mg/Kg	1	2.00	<0.00850	94	74.3 - 117.9	2	20
Xylene		1	5.74	mg/Kg	1	6.00	<0.00613	96	73.4 - 118.8	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	1.90	mg/Kg	1	2.00	96	95	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.93	1.94	mg/Kg	1	2.00	96	97	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 86135 | Date Analyzed: 2011-11-05 | Analyzed By: AG
Prep Batch: 73143 | QC Preparation: 2011-11-04 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.8	mg/Kg	1	20.0	<0.753	89	60.9 - 105.4

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

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.2	mg/Kg	1	20.0	<0.753	91	60.9 - 105.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.97	1.96	mg/Kg	1	2.00	98	98	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.78	1.79	mg/Kg	1	2.00	89	90	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 86138 | Date Analyzed: 2011-11-04 | Analyzed By: kg
Prep Batch: 73148 | QC Preparation: 2011-11-04 | Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	282	mg/Kg	1	250	<14.5	113	64.5 - 146.9

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
DRO		1	290	mg/Kg	1	250	<14.5	116	64.5 - 146.9	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	131	135	mg/Kg	1	100	131	135	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: 86234 | Date Analyzed: 2011-11-08 | Analyzed By: kg
Prep Batch: 73224 | QC Preparation: 2011-11-08 | Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	248	mg/Kg	1	250	<14.5	99	64.5 - 146.9

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
DRO		1	259	mg/Kg	1	250	<14.5	104	64.5 - 146.9	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	112	115	mg/Kg	1	100	112	115	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: 86239 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.7	mg/Kg	1	100	<3.85	97	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			103	mg/Kg	1	100	<3.85	103	85 - 115	6	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: 86240 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			97.2	mg/Kg	1	100	<3.85	97	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			102	mg/Kg	1	100	<3.85	102	85 - 115	5	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: 86241 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.9	mg/Kg	1	100	<3.85	97	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			103	mg/Kg	1	100	<3.85	103	85 - 115	6	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: 86281 | Date Analyzed: 2011-11-09 | Analyzed By: AG
Prep Batch: 73217 | QC Preparation: 2011-11-08 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.98	mg/Kg	1	2.00	<0.0118	99	77.4 - 121.7
Toluene		1	1.97	mg/Kg	1	2.00	<0.00600	98	88.6 - 121.6
Ethylbenzene		1	1.94	mg/Kg	1	2.00	<0.00850	97	74.3 - 117.9
Xylene		1	5.85	mg/Kg	1	6.00	<0.00613	98	73.4 - 118.8

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	1.99	mg/Kg	1	2.00	<0.0118	100	77.4 - 121.7	0	20
Toluene		1	1.95	mg/Kg	1	2.00	<0.00600	98	88.6 - 121.6	1	20
Ethylbenzene		1	1.89	mg/Kg	1	2.00	<0.00850	94	74.3 - 117.9	3	20
Xylene		1	5.74	mg/Kg	1	6.00	<0.00613	96	73.4 - 118.8	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.95	mg/Kg	1	2.00	96	98	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.97	2.01	mg/Kg	1	2.00	98	100	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 86282 | Date Analyzed: 2011-11-09 | Analyzed By: AG
Prep Batch: 73217 | QC Preparation: 2011-11-08 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.4	mg/Kg	1	20.0	<0.753	97	60.9 - 105.4

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	18.8	mg/Kg	1	20.0	<0.753	94	60.9 - 105.4	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.96	1.96	mg/Kg	1	2.00	98	98	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.78	1.81	mg/Kg	1	2.00	89	90	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 86283 | Date Analyzed: 2011-11-09 | Analyzed By: kg
Prep Batch: 73262 | QC Preparation: 2011-11-09 | Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	243	mg/Kg	1	250	<14.5	97	64.5 - 146.9

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
DRO		1	247	mg/Kg	1	250	<14.5	99	64.5 - 146.9	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	93.0	92.9	mg/Kg	1	100	93	93	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: 86315 | Date Analyzed: 2011-11-10 | Analyzed By: AG
Prep Batch: 73286 | QC Preparation: 2011-11-10 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.91	mg/Kg	1	2.00	<0.0118	96	77.4 - 121.7
Toluene		1	1.92	mg/Kg	1	2.00	<0.00600	96	88.6 - 121.6
Ethylbenzene		1	1.92	mg/Kg	1	2.00	<0.00850	96	74.3 - 117.9
Xylene		1	5.85	mg/Kg	1	6.00	<0.00613	98	73.4 - 118.8

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	2.02	mg/Kg	1	2.00	<0.0118	101	77.4 - 121.7	6	20
Toluene		1	2.03	mg/Kg	1	2.00	<0.00600	102	88.6 - 121.6	6	20
Ethylbenzene		1	1.99	mg/Kg	1	2.00	<0.00850	100	74.3 - 117.9	4	20
Xylene		1	6.06	mg/Kg	1	6.00	<0.00613	101	73.4 - 118.8	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.88	1.94	mg/Kg	1	2.00	94	97	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	2.02	2.10	mg/Kg	1	2.00	101	105	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 86316 | Date Analyzed: 2011-11-10 | Analyzed By: AG
Prep Batch: 73286 | QC Preparation: 2011-11-10 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.3	mg/Kg	1	20.0	<0.753	96	60.9 - 105.4

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	19.6	mg/Kg	1	20.0	<0.753	98	60.9 - 105.4	2	20

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

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.98	mg/Kg	1	2.00	96	99	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.91	1.92	mg/Kg	1	2.00	96	96	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 86360 | Date Analyzed: 2011-11-11 | Analyzed By: AG
Prep Batch: 73337 | QC Preparation: 2011-11-11 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.08	mg/Kg	1	2.00	<0.0118	104	77.4 - 121.7
Toluene		1	1.98	mg/Kg	1	2.00	<0.00600	99	88.6 - 121.6
Ethylbenzene		1	1.90	mg/Kg	1	2.00	<0.00850	95	74.3 - 117.9
Xylene		1	5.78	mg/Kg	1	6.00	<0.00613	96	73.4 - 118.8

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	2.10	mg/Kg	1	2.00	<0.0118	105	77.4 - 121.7	1	20
Toluene		1	2.04	mg/Kg	1	2.00	<0.00600	102	88.6 - 121.6	3	20
Ethylbenzene		1	1.95	mg/Kg	1	2.00	<0.00850	98	74.3 - 117.9	3	20
Xylene		1	5.93	mg/Kg	1	6.00	<0.00613	99	73.4 - 118.8	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.89	1.92	mg/Kg	1	2.00	94	96	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.98	2.01	mg/Kg	1	2.00	99	100	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 86361 | Date Analyzed: 2011-11-11 | Analyzed By: AG
Prep Batch: 73337 | QC Preparation: 2011-11-11 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		,	18.7	mg/Kg	1	20.0	<0.753	94	60.9 - 105.4

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		,	19.5	mg/Kg	1	20.0	<0.753	98	60.9 - 105.4	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.96	1.94	mg/Kg	1	2.00	98	97	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.88	1.87	mg/Kg	1	2.00	94	94	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 86366 | Date Analyzed: 2011-11-11 | Analyzed By: kg
Prep Batch: 73341 | QC Preparation: 2011-11-11 | Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		,	255	mg/Kg	1	250	<14.5	102	64.5 - 146.9

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
DRO		,	265	mg/Kg	1	250	<14.5	106	64.5 - 146.9	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	96.4	98.1	mg/Kg	1	100	96	98	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: 86448 | Date Analyzed: 2011-11-14 | Analyzed By: kg
Prep Batch: 73404 | QC Preparation: 2011-11-14 | Prepared By: kg

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control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	259	mg/Kg	1	250	<14.5	104	64.5 - 146.9

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
DRO		1	231	mg/Kg	1	250	<14.5	92	64.5 - 146.9	11	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	97.8	88.5	mg/Kg	1	100	98	88	65.3 - 135.8

Matrix Spike (MS-1) Spiked Sample: 281552

QC Batch: 86134 | Date Analyzed: 2011-11-05 | Analyzed By: AG
Prep Batch: 73143 | QC Preparation: 2011-11-04 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.24	mg/Kg	1	2.00	<0.0118	112	69.4 - 123.6
Toluene		1	2.23	mg/Kg	1	2.00	<0.00600	112	75.4 - 134.3
Ethylbenzene		1	2.32	mg/Kg	1	2.00	<0.00850	116	58.8 - 133.7
Xylene		1	6.98	mg/Kg	1	6.00	<0.00613	116	57 - 134.2

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	Qr	Qr	1	1.72	mg/Kg	1	2.00	<0.0118	86	69.4 - 123.6	26	20
Toluene	Qr	Qr	1	1.70	mg/Kg	1	2.00	<0.00600	85	75.4 - 134.3	27	20
Ethylbenzene	Qr	Qr	1	1.76	mg/Kg	1	2.00	<0.00850	88	58.8 - 133.7	27	20
Xylene	Qr	Qr	1	5.30	mg/Kg	1	6.00	<0.00613	88	57 - 134.2	27	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	1.94	mg/Kg	1	2	97	97	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.07	2.04	mg/Kg	1	2	104	102	71 - 167

Matrix Spike (MS-1) Spiked Sample: 281555

QC Batch: 86135 | Date Analyzed: 2011-11-05 | Analyzed By: AG
Prep Batch: 73143 | QC Preparation: 2011-11-04 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.9	mg/Kg	1	20.0	3.68	81	61.8 - 114

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	22.0	mg/Kg	1	20.0	3.68	92	61.8 - 114	10	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)	1.95	1.95	mg/Kg	1	2	98	98	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.01	2.02	mg/Kg	1	2	100	101	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 281552

QC Batch: 86138 | Date Analyzed: 2011-11-04 | Analyzed By: kg
Prep Batch: 73148 | QC Preparation: 2011-11-04 | Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	293	mg/Kg	1	250	23.1	108	38.8 - 153.3

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	302	mg/Kg	1	250	23.1	112	38.8 - 153.3	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	125	122	mg/Kg	1	100	125	122	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 281579

QC Batch: 86234 | Date Analyzed: 2011-11-08 | Analyzed By: kg
Prep Batch: 73224 | QC Preparation: 2011-11-08 | Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		,	222	mg/Kg	1	250	<14.5	89	38.8 - 153.3

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		,	239	mg/Kg	1	250	<14.5	96	38.8 - 153.3	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	97.3	105	mg/Kg	1	100	97	105	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 281601

QC Batch: 86239 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10400	mg/Kg	100	10000	<385	102	79.4 - 120.6

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			10800	mg/Kg	100	10000	<385	106	79.4 - 120.6	4	20

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

Matrix Spike (MS-1) Spiked Sample: 281612

QC Batch: 86240 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10400	mg/Kg	100	10000	914	95	79.4 - 120.6

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			10900	mg/Kg	100	10000	914	100	79.4 - 120.6	5	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: 281615

QC Batch: 86241 | Date Analyzed: 2011-11-09 | Analyzed By: AR
Prep Batch: 73222 | QC Preparation: 2011-11-07 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			12900	mg/Kg	100	10000	3780	91	79.4 - 120.6

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			13400	mg/Kg	100	10000	3780	96	79.4 - 120.6	4	20

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

Matrix Spike (MS-1) Spiked Sample: 281797

QC Batch: 86281 | Date Analyzed: 2011-11-09 | Analyzed By: AG
Prep Batch: 73217 | QC Preparation: 2011-11-08 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene			2.00	mg/Kg	1	2.00	<0.0118	100	69.4 - 123.6
Toluene			2.05	mg/Kg	1	2.00	<0.00600	102	75.4 - 134.3
Ethylbenzene			2.07	mg/Kg	1	2.00	<0.00850	104	58.8 - 133.7
Xylene			6.22	mg/Kg	1	6.00	<0.00613	104	57 - 134.2

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

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene			2.27	mg/Kg	1	2.00	<0.0118	114	69.4 - 123.6	13	20
Toluene			2.33	mg/Kg	1	2.00	<0.00600	116	75.4 - 134.3	13	20
Ethylbenzene			2.37	mg/Kg	1	2.00	<0.00850	118	58.8 - 133.7	14	20
Xylene			7.14	mg/Kg	1	6.00	<0.00613	119	57 - 134.2	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.02	1.98	mg/Kg	1	2	101	99	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.08	2.07	mg/Kg	1	2	104	104	71 - 167

Matrix Spike (MS-1) Spiked Sample: 281579

QC Batch: 86282 | Date Analyzed: 2011-11-09 | Analyzed By: AG
Prep Batch: 73217 | QC Preparation: 2011-11-08 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO			17.6	mg/Kg	1	20.0	2.72	74	61.8 - 114

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			21.0	mg/Kg	1	20.0	2.72	91	61.8 - 114	18	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)	1.95	1.94	mg/Kg	1	2	98	97	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	1.95	1.98	mg/Kg	1	2	98	99	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 281940

QC Batch: 86283 | Date Analyzed: 2011-11-09 | Analyzed By: kg
Prep Batch: 73262 | QC Preparation: 2011-11-09 | Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	229	mg/Kg	1	250	<14.5	92	38.8 - 153.3

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	235	mg/Kg	1	250	<14.5	94	38.8 - 153.3	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	87.9	88.8	mg/Kg	1	100	88	89	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 282020

QC Batch: 86315 | Date Analyzed: 2011-11-10 | Analyzed By: AG
Prep Batch: 73286 | QC Preparation: 2011-11-10 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.40	mg/Kg	1	2.00	<0.0118	120	69.4 - 123.6
Toluene		1	2.50	mg/Kg	1	2.00	<0.00600	125	75.4 - 134.3
Ethylbenzene		1	2.57	mg/Kg	1	2.00	<0.00850	128	58.8 - 133.7
Xylene		1	7.77	mg/Kg	1	6.00	<0.00613	130	57 - 134.2

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	Qr	Qr	1	1.85	mg/Kg	1	2.00	<0.0118	92	69.4 - 123.6	26	20
Toluene	Qr	Qr	1	1.95	mg/Kg	1	2.00	<0.00600	98	75.4 - 134.3	25	20
Ethylbenzene	Qr	Qr	1	2.01	mg/Kg	1	2.00	<0.00850	100	58.8 - 133.7	24	20
Xylene	Qr	Qr	1	6.10	mg/Kg	1	6.00	<0.00613	102	57 - 134.2	24	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)	1.91	1.96	mg/Kg	1	2	96	98	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.17	2.19	mg/Kg	1	2	108	110	71 - 167

Matrix Spike (MS-1) *Spiked Sample: 282016*

QC Batch: 86316 | Date Analyzed: 2011-11-10 | Analyzed By: AG
Prep Batch: 73286 | QC Preparation: 2011-11-10 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	20.2	mg/Kg	1	20.0	4.02	81	61.8 - 114

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	21.9	mg/Kg	1	20.0	4.02	110	61.8 - 114	8	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)	1.91	1.96	mg/Kg	1	2	96	98	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.06	2.09	mg/Kg	1	2	103	104	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 282104

QC Batch: 86360 | Date Analyzed: 2011-11-11 | Analyzed By: AG
Prep Batch: 73337 | QC Preparation: 2011-11-11 | Prepared By: AG

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	3.02	mg/Kg	1	2.00	<0.0118	151	69.4 - 123.6
Toluene	Qs	Qs	1	2.97	mg/Kg	1	2.00	<0.00600	148	75.4 - 134.3
Ethylbenzene	Qs	Qs	1	2.92	mg/Kg	1	2.00	<0.00850	146	58.8 - 133.7
Xylene	Qs	Qs	1	8.88	mg/Kg	1	6.00	<0.00613	148	57 - 134.2

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	Qs	Qs	1	2.94	mg/Kg	1	2.00	<0.0118	147	69.4 - 123.6	3	20
Toluene	Qs	Qs	1	2.91	mg/Kg	1	2.00	<0.00600	146	75.4 - 134.3	2	20
Ethylbenzene	Qs	Qs	1	2.98	mg/Kg	1	2.00	<0.00850	149	58.8 - 133.7	2	20
Xylene	Qs	Qs	1	8.98	mg/Kg	1	6.00	<0.00613	150	57 - 134.2	1	20

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

continued ...

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)	1.93	1.93	mg/Kg	1	2	96	96	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.11	2.15	mg/Kg	1	2	106	108	71 - 167

Matrix Spike (MS-1) Spiked Sample: 282104

QC Batch: 86361 | Date Analyzed: 2011-11-11 | Analyzed By: AG
Prep Batch: 73337 | QC Preparation: 2011-11-11 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	24.8	mg/Kg	1	20.0	3.14	108	61.8 - 114

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	Qs	1	25.9	mg/Kg	1	20.0	3.14	114	61.8 - 114	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	1.93	mg/Kg	1	2	97	96	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.04	2.03	mg/Kg	1	2	102	102	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 282104

QC Batch: 86366 | Date Analyzed: 2011-11-11 | Analyzed By: kg
Prep Batch: 73341 | QC Preparation: 2011-11-11 | Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	222	mg/Kg	1	250	46.7	70	38.8 - 153.3

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

continued ...

matrix spikes continued . . .

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	*MSD Result*	Units	Dil.	*Spike Amount*	*Matrix Result*	Rec.	*Rec. Limit*	RPD	RPD Limit
DRO		1	204	mg/Kg	1	250	46.7	63	38.8 - 153.3	8	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	87.9	75.4	mg/Kg	1	100	88	75	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 282214

QC Batch: 86448 | Date Analyzed: 2011-11-14 | Analyzed By: kg
Prep Batch: 73404 | QC Preparation: 2011-11-14 | Prepared By: kg

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	Qs	Qs	1	9750	mg/Kg	5	250	9750	0	38.8 - 153.3

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	Qs	Qs	1	8780	mg/Kg	5	250	9750	0	38.8 - 153.3	10	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	Qsr	Qsr	598	533	mg/Kg	5	100	598	533	54.6 - 149.8

Calibration Standards

Standard (CCV-2)

QC Batch: 86134 | Date Analyzed: 2011-11-05 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0921	92	80 - 120	2011-11-05
Toluene		1	mg/Kg	0.100	0.0888	89	80 - 120	2011-11-05
Ethylbenzene		1	mg/Kg	0.100	0.0859	86	80 - 120	2011-11-05
Xylene		1	mg/Kg	0.300	0.260	87	80 - 120	2011-11-05

Standard (CCV-3)

QC Batch: 86134 | Date Analyzed: 2011-11-05 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0986	99	80 - 120	2011-11-05
Toluene		1	mg/Kg	0.100	0.0980	98	80 - 120	2011-11-05
Ethylbenzene		1	mg/Kg	0.100	0.0935	94	80 - 120	2011-11-05
Xylene		1	mg/Kg	0.300	0.280	93	80 - 120	2011-11-05

Standard (CCV-2)

QC Batch: 86135 | Date Analyzed: 2011-11-05 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2011-11-05

Standard (CCV-3)

QC Batch: 86135 | Date Analyzed: 2011-11-05 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2011-11-05

Standard (CCV-2)

QC Batch: 86138 Date Analyzed: 2011-11-04 Analyzed By: kg

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	2011-11-04

Standard (CCV-3)

QC Batch: 86138 Date Analyzed: 2011-11-04 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	231	92	80 - 120	2011-11-04

Standard (CCV-2)

QC Batch: 86234 Date Analyzed: 2011-11-08 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	253	101	80 - 120	2011-11-08

Standard (CCV-3)

QC Batch: 86234 Date Analyzed: 2011-11-08 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO			mg/Kg	250	242	97	80 - 120	2011-11-08

Standard (ICV-1)

QC Batch: 86239 Date Analyzed: 2011-11-09 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.7	99	85 - 115	2011-11-09

Standard (CCV-1)

QC Batch: 86239 Date Analyzed: 2011-11-09 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	2011-11-09

Standard (ICV-1)

QC Batch: 86240 Date Analyzed: 2011-11-09 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2011-11-09

Standard (CCV-1)

QC Batch: 86240 Date Analyzed: 2011-11-09 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	2011-11-09

Standard (ICV-1)

QC Batch: 86241 | Date Analyzed: 2011-11-09 | Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2011-11-09

Standard (CCV-1)

QC Batch: 86241 | Date Analyzed: 2011-11-09 | 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	98.2	98	85 - 115	2011-11-09

Standard (CCV-1)

QC Batch: 86281 | Date Analyzed: 2011-11-09 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.101	101	80 - 120	2011-11-09
Toluene		1	mg/Kg	0.100	0.0980	98	80 - 120	2011-11-09
Ethylbenzene		1	mg/Kg	0.100	0.0961	96	80 - 120	2011-11-09
Xylene		1	mg/Kg	0.300	0.292	97	80 - 120	2011-11-09

Standard (CCV-2)

QC Batch: 86281 | Date Analyzed: 2011-11-09 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.100	100	80 - 120	2011-11-09
Toluene		1	mg/Kg	0.100	0.0981	98	80 - 120	2011-11-09
Ethylbenzene		1	mg/Kg	0.100	0.0965	96	80 - 120	2011-11-09
Xylene		1	mg/Kg	0.300	0.290	97	80 - 120	2011-11-09

Standard (CCV-3)

QC Batch: 86281 Date Analyzed: 2011-11-09 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0962	96	80 - 120	2011-11-09
Toluene		1	mg/Kg	0.100	0.0955	96	80 - 120	2011-11-09
Ethylbenzene		1	mg/Kg	0.100	0.0960	96	80 - 120	2011-11-09
Xylene		1	mg/Kg	0.300	0.287	96	80 - 120	2011-11-09

Standard (CCV-1)

QC Batch: 86282 Date Analyzed: 2011-11-09 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2011-11-09

Standard (CCV-2)

QC Batch: 86282 Date Analyzed: 2011-11-09 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2011-11-09

Standard (CCV-3)

QC Batch: 86282 | Date Analyzed: 2011-11-09 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.19	119	80 - 120	2011-11-09

Standard (CCV-1)

QC Batch: 86283 | Date Analyzed: 2011-11-09 | Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	255	102	80 - 120	2011-11-09

Standard (CCV-2)

QC Batch: 86283 | Date Analyzed: 2011-11-09 | Analyzed By: kg

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	2011-11-09

Standard (CCV-3)

QC Batch: 86283 | Date Analyzed: 2011-11-09 | Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	246	98	80 - 120	2011-11-09

Standard (CCV-1)

QC Batch: 86315 | Date Analyzed: 2011-11-10 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0966	97	80 - 120	2011-11-10
Toluene		1	mg/Kg	0.100	0.0988	99	80 - 120	2011-11-10
Ethylbenzene		1	mg/Kg	0.100	0.0986	99	80 - 120	2011-11-10
Xylene		1	mg/Kg	0.300	0.299	100	80 - 120	2011-11-10

Standard (CCV-2)

QC Batch: 86315 Date Analyzed: 2011-11-10 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0940	94	80 - 120	2011-11-10
Toluene		1	mg/Kg	0.100	0.0944	94	80 - 120	2011-11-10
Ethylbenzene		1	mg/Kg	0.100	0.0924	92	80 - 120	2011-11-10
Xylene		1	mg/Kg	0.300	0.284	95	80 - 120	2011-11-10

Standard (CCV-3)

QC Batch: 86315 Date Analyzed: 2011-11-10 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0960	96	80 - 120	2011-11-10
Toluene		1	mg/Kg	0.100	0.0958	96	80 - 120	2011-11-10
Ethylbenzene		1	mg/Kg	0.100	0.0945	94	80 - 120	2011-11-10
Xylene		1	mg/Kg	0.300	0.286	95	80 - 120	2011-11-10

Standard (CCV-1)

QC Batch: 86316 Date Analyzed: 2011-11-10 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2011-11-10

Standard (CCV-2)

QC Batch: 86316 | Date Analyzed: 2011-11-10 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2011-11-10

Standard (CCV-3)

QC Batch: 86316 | Date Analyzed: 2011-11-10 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2011-11-10

Standard (CCV-1)

QC Batch: 86360 | Date Analyzed: 2011-11-11 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.105	105	80 - 120	2011-11-11
Toluene		1	mg/Kg	0.100	0.0988	99	80 - 120	2011-11-11
Ethylbenzene		1	mg/Kg	0.100	0.0958	96	80 - 120	2011-11-11
Xylene		1	mg/Kg	0.300	0.292	97	80 - 120	2011-11-11

Standard (CCV-2)

QC Batch: 86360 | Date Analyzed: 2011-11-11 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.102	102	80 - 120	2011-11-11
Toluene		1	mg/Kg	0.100	0.0983	98	80 - 120	2011-11-11
Ethylbenzene		1	mg/Kg	0.100	0.0936	94	80 - 120	2011-11-11
Xylene		1	mg/Kg	0.300	0.284	95	80 - 120	2011-11-11

Standard (CCV-1)

QC Batch: 86361 | Date Analyzed: 2011-11-11 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.16	116	80 - 120	2011-11-11

Standard (CCV-2)

QC Batch: 86361 | Date Analyzed: 2011-11-11 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.16	116	80 - 120	2011-11-11

Standard (CCV-1)

QC Batch: 86366 | Date Analyzed: 2011-11-11 | Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	252	101	80 - 120	2011-11-11

Standard (CCV-2)

QC Batch: 86366 | Date Analyzed: 2011-11-11 | Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	257	103	80 - 120	2011-11-11

Standard (CCV-3)

QC Batch: 86366 | Date Analyzed: 2011-11-11 | Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		,	mg/Kg	250	250	100	80 - 120	2011-11-11

Standard (CCV-1)

QC Batch: 86448 Date Analyzed: 2011-11-14 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		,	mg/Kg	250	258	103	80 - 120	2011-11-14

Standard (CCV-2)

QC Batch: 86448 Date Analyzed: 2011-11-14 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		,	mg/Kg	250	256	102	80 - 120	2011-11-14

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

WO # 11110418

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401070

PROJECT NAME: Electra North Tank Battery
Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2011	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 Vr Pd 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. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
281592	11/1		S		X	AH-1 0-1' (2' BEB)	1				X		X	X											X				
593						1-1.5' (2' BEB)	1				X														X				
594						2-2.5' (2' BEB)	1				X														X				
595						3-3.5' (2' BEB)	1				X														X				
596						4-4.5' (2' BEB)	1				X														X				
597						5-5.5' (2' BEB)	1				X														X				
598						6-6.5' (2' BEB)	1				X														X				
599						7-7.5' (2' BEB)	1				X														X				
600						AH-2 0-1' (2' BEB)	1				X		X	X											X				
601						1-1.5' (2' BEB)	1				X														X				

RELINQUISHED BY: (Signature) — Date: 11/3/11 Time: 1650
RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Initial) Kim — Date: Time:

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

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 11.3.11 TIME: 16:50

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4.3°C intact

REMARKS: Run deeper depths if TPH exceed 5,000 mg/kg.

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

Run deeper depths if benzene exceed 10 mg/kg or Total BTEX exceed 50 mg/kg.

WO# 1111 0418

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 114-6401070
PROJECT NAME: Electra North Tank Battery
Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

PRESERVATIVE METHOD

LAB I.D. NUMBER	DATE 2011	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	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. 8240/8260/624	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
281602	11/1		S		X	AH-2 2-2.5' (2'BEB)	1				X														X				
603						3-3.5' (2' BEB)	1				X														X				
604						4-4.5' (2' BEB)	1				X														Hold				
605						AH-3 0-1' (2' BEB)	1				X		X	X											X				
606						1-1.5' (2' BEB)	1				X														X				
607						2-2.5' (2' BEB)	1				X														X				
608						AH-4 0-1' (2' BEB)	1				X		X	X											X				
609						1-1.5' (2' BEB)	1				X														X				
610						2-2.5' (2' BEB)	1				X														X				
611						3-3.5' (2' BEB)	1				X														X				

RELINQUISHED BY: (Signature) [signature] Date: 11-3-2011 Time: 1650
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Initial) Kim Date: 11/1/11 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: Ike Tavarez
Results by:

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature]
DATE: 11-3-11 TIME: 16:50
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4.3°C intact

REMARKS: Run deeper sample if TPH exceeds 5,000 mg/kg. Run deeper sample if Benzene exceeds 10 mg/kg or Total BTEX exceeds 50 mg/kg.

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

W.O. # 1110418

Analysis Request of Chain of Custody Record

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 Tavarez

PROJECT NO.: 114-6410 1070

PROJECT NAME: Electra North Tank Battery
Eddy Co, NM

LAB I.D. NUMBER	DATE 2011	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 Vr Pd 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
281612	11/1		S		X	AH-4 4-4.5' (2' BEB)	1				X														X				
613						5-5.5' (2' BEB)	1				X														X				
614						6-6.5' (2' BEB)	1				X														X				
615						7-7.5' (2' BEB)	1				X														X				

RELINQUISHED BY: (Signature) Date: 11-3-11 Time: 1650
RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) Kim Date: 11/1/11 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 11-3-11 TIME: 16:50

SAMPLE CONDITION WHEN RECEIVED: 4.3°C intact

REMARKS:

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

TRACEANALYSIS, INC.

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 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: February 2, 2012

Work Order: 12013004

Project Location: Eddy Co., NM
Project Name: Electra North Tank Battery
Project Number: 114-6401070

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
287740	BH-1 0-1'	soil	2012-01-25	00:00	2012-01-27
287741	BH-1 2-3'	soil	2012-01-25	00:00	2012-01-27
287742	BH-1 4-5'	soil	2012-01-25	00:00	2012-01-27
287743	BH-1 6-7'	soil	2012-01-25	00:00	2012-01-27
287744	BH-1 9-10'	soil	2012-01-25	00:00	2012-01-27

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.

Michael Abel

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

Report Contents

Case Narrative

Samples for project Electra North Tank Battery were received by TraceAnalysis, Inc. on 2012-01-27 and assigned to work order 12013004. Samples for work order 12013004 were received intact at a temperature of 1.1 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	74901	2012-02-01 at 11:48	88249	2012-02-01 at 11:24

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 12013004 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.

Analytical Report

Sample: 287740 - BH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	88249	Date Analyzed:	2012-02-01	Analyzed By:	AR
Prep Batch:	74901	Sample Preparation:	2012-02-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**290**	mg/Kg	50	4.00

Sample: 287741 - BH-1 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	88249	Date Analyzed:	2012-02-01	Analyzed By:	AR
Prep Batch:	74901	Sample Preparation:	2012-02-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**231**	mg/Kg	50	4.00

Sample: 287742 - BH-1 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	88249	Date Analyzed:	2012-02-01	Analyzed By:	AR
Prep Batch:	74901	Sample Preparation:	2012-02-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<200	mg/Kg	50	4.00

Sample: 287743 - BH-1 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	88249	Date Analyzed:	2012-02-01	Analyzed By:	AR
Prep Batch:	74901	Sample Preparation:	2012-02-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**334**	mg/Kg	50	4.00

Sample: 287744 - BH-1 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	88249	Date Analyzed:	2012-02-01	Analyzed By:	AR
Prep Batch:	74901	Sample Preparation:	2012-02-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<200	mg/Kg	50	4.00

Method Blanks

Method Blank (1) QC Batch: 88249

QC Batch:	88249	Date Analyzed:	2012-02-01	Analyzed By:	AR
Prep Batch:	74901	QC Preparation:	2012-02-01	Prepared By:	AR

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

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 88249 | Date Analyzed: 2012-02-01 | Analyzed By: AR
Prep Batch: 74901 | QC Preparation: 2012-02-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.7	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			104	mg/Kg	1	100	<3.85	104	85 - 115	8	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: 287744

QC Batch: 88249 | Date Analyzed: 2012-02-01 | Analyzed By: AR
Prep Batch: 74901 | QC Preparation: 2012-02-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10000	mg/Kg	100	10000	<385	100	79.4 - 120.6

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			10400	mg/Kg	100	10000	<385	104	79.4 - 120.6	4	20

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

Calibration Standards

Standard (ICV-1)

QC Batch: 88249 Date Analyzed: 2012-02-01 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-02-01

Standard (CCV-1)

QC Batch: 88249 Date Analyzed: 2012-02-01 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	2012-02-01

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

#12013009

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

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 Tavarez

PROJECT NO.: 114-640 1070

PROJECT NAME: Electra Tank Battery
Eddy Co, NM

LAB I.D. NUMBER	DATE 2012	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 Vr Pd 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
287740	4/25		S		X	BH-1 0-1'	1				X													X				
741	"		"		"	2-3'	1				X													X				
742						4-5'	1				X													X				
743						6-7'	1				X													X				
744						9-10'	1				X													X				
745						14-15'	1				X																	
746						19-20'	1				X																	

RELINQUISHED BY: (Signature) Date: 4/27/12 Time: 1615
RECEIVED BY: (Signature) Date: 4/27/12 Time: 1615

SAMPLED BY: (Print & Initial) Kim Date: 4/27/12 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: Ike Tavarez

Results by:

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.1° Intact

REMARKS:

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