

SITE INFORMATION

Report Type: Closure Report

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 valve	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 Tavaréz
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.tavaréz@tetrattech.com

Ranking Criteria

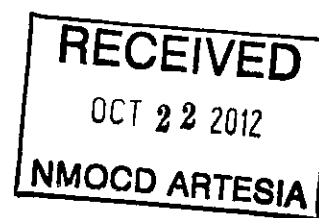
Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	0
Wellhead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10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

Acceptable Soil RRAL (mg/kg)		
Benzene	Total BTEX	TPH
10	50	5,000

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 OCT 22 2012
NMOCD ARTESIA



TETRA TECH



September 18, 2012

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

Re: Closure Report 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'. The initial C-141 form is enclosed in Appendix A.



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.

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 C. 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.

Site Remediation Activities

On April 2012, Tetra Tech personnel supervised the excavation of the site. The proposed excavation depths proposed in work plan were met as stated in the approved work plan. Additionally, at the request of the BLM, confirmation samples (CS-1 through CS-4) were collected and field screened for laboratory analysis. The results of the analysis are shown on Table 1.



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Referring to Table 1, the confirmation samples showed chloride concentrations ranging from <200 mg/kg to 921 mg/kg. In the area of AH-4, a clay cap was installed in the excavation bottom. Once completed, the BLM inspected the excavation and approved backfilling activities. Approximately 120 yards³ were removed and transported to R360 for proper disposal. The site was backfilled to surface grade with clean material.

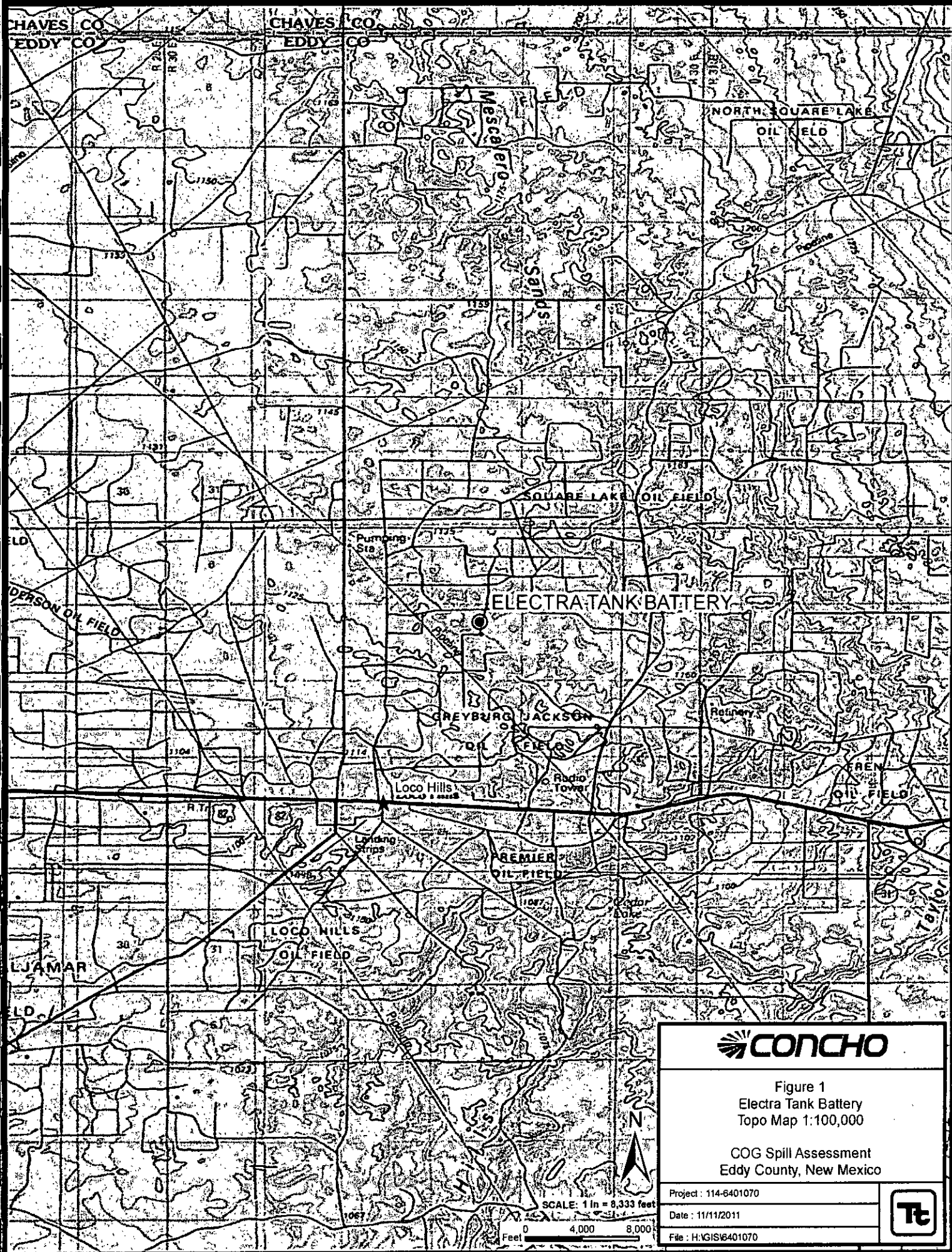
Based on the remediation activities performed at the site, COG request closure of the spill issues. The final C-141 forms (1st and 2nd spill) are included in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities performed at the site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavaréz
Senior Project Manager

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

Figures



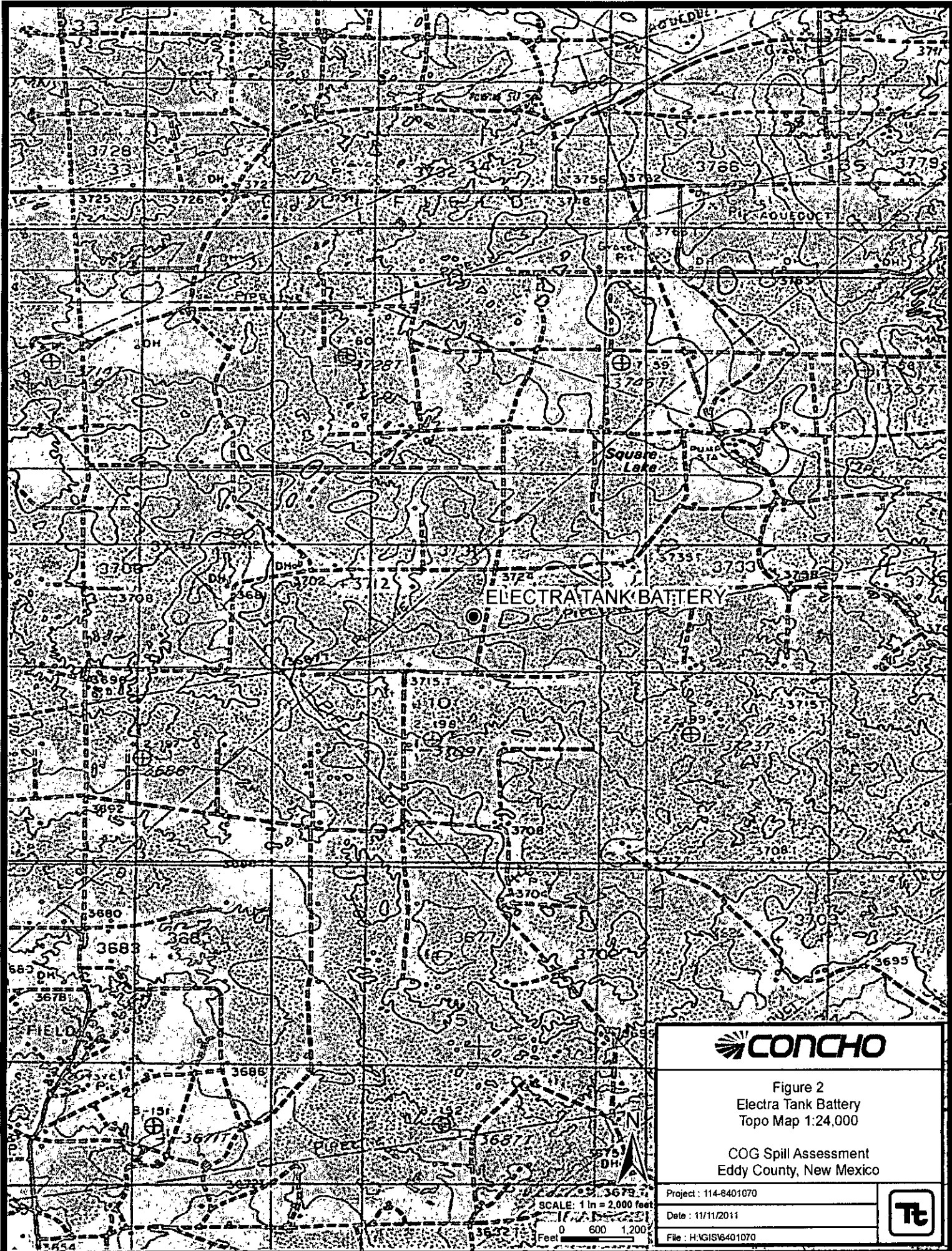


Figure 2
Electra Tank Battery
Topo Map 1:24,000

COG Spill Assessment
Eddy County, New Mexico

Project : 114-8401070

Date : 11/11/2011

File : H:\GIS\6401070



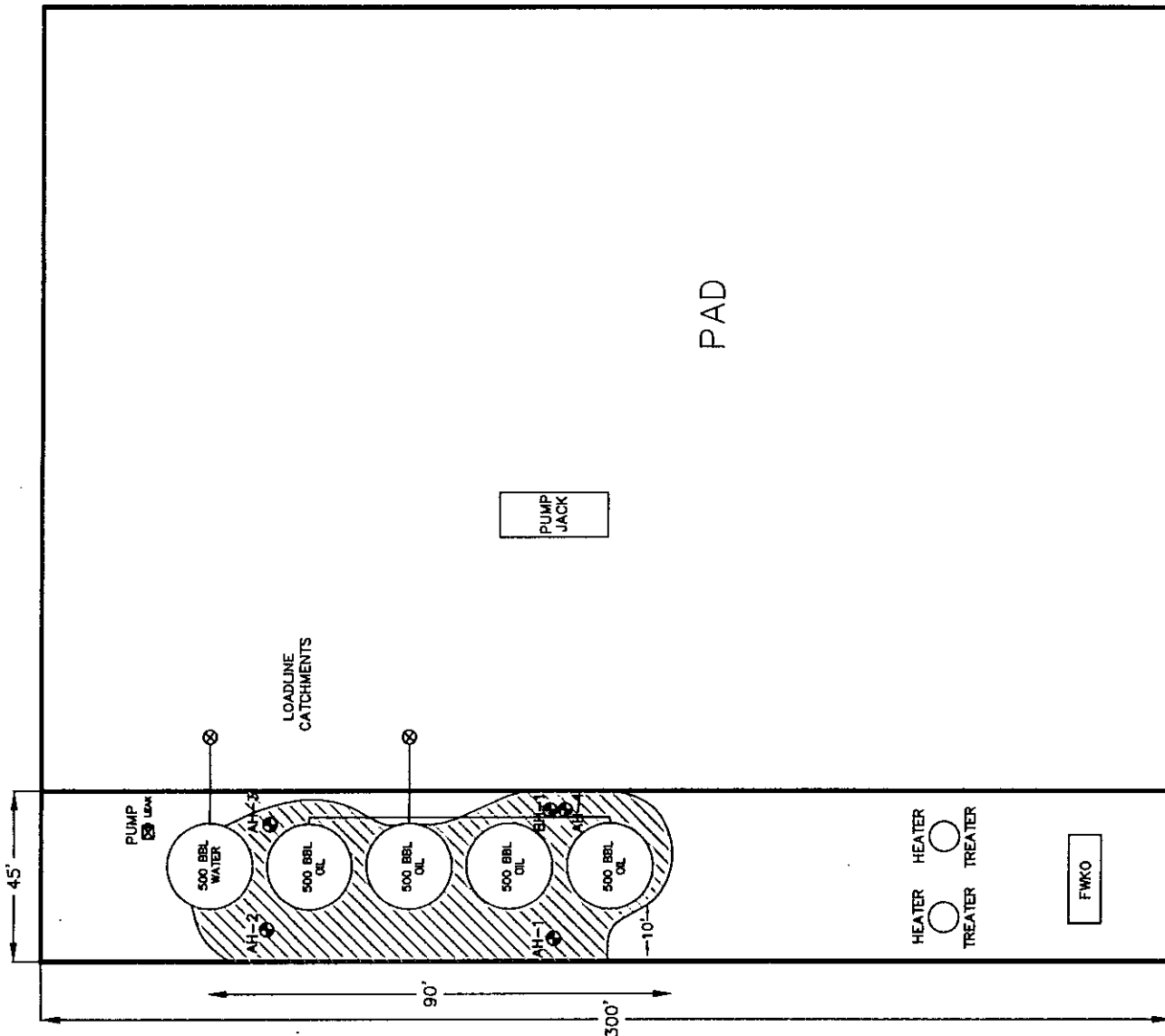


FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

ELECTRA NORTH FEDERAL TB

TETRA TECH, INC.
MIDLAND, TEXAS

DATE: 1/25/2012

DRAWN BY: JM

FILE: H:\COG\44001070
ELECTRA NORTH FED TB

NOT TO SCALE

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



FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

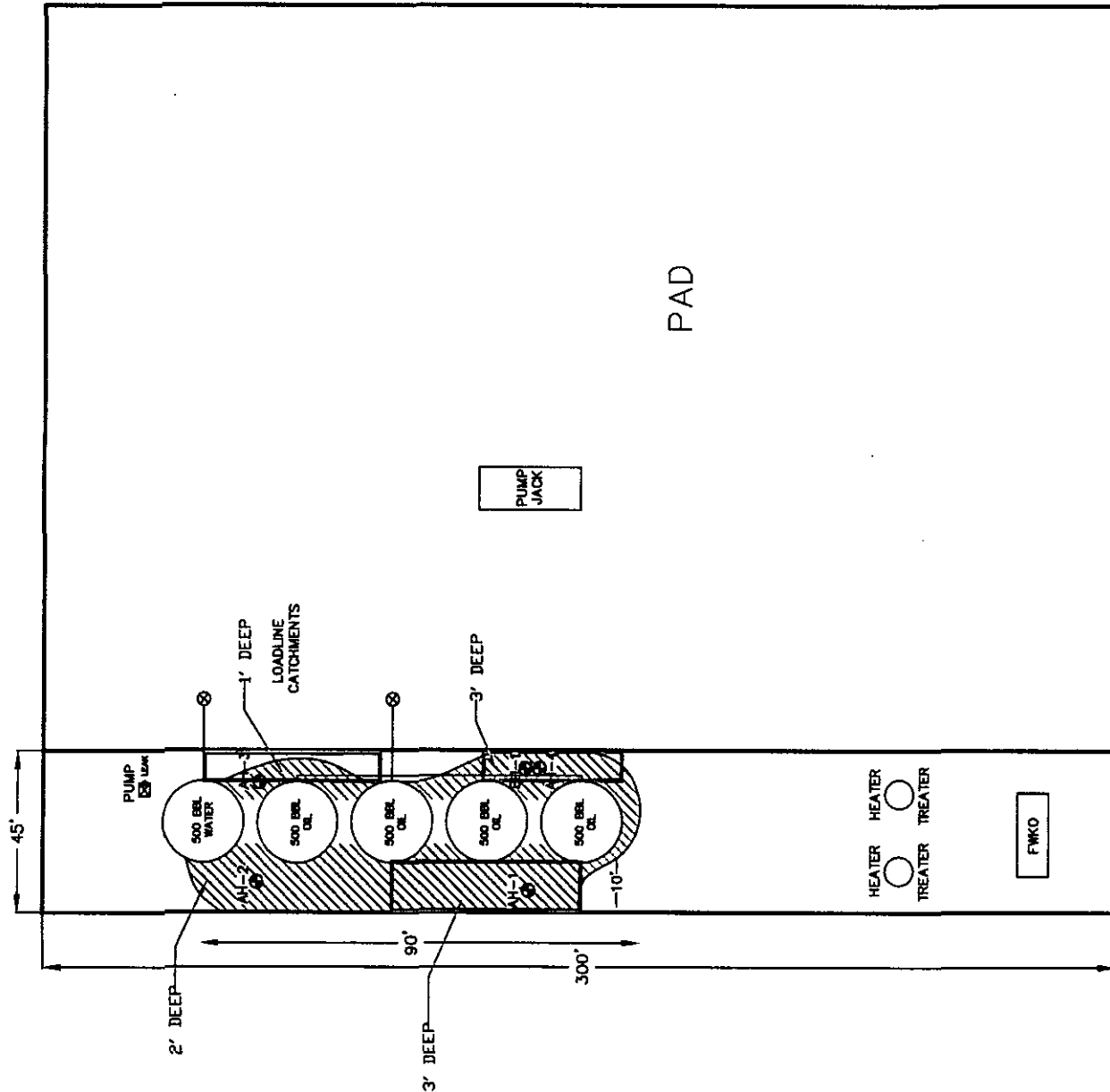
COG OPERATING LLC

ELECTRA NORTH FEDERAL TB
EXCAVATION AREA & DEPTHS MAP

TETRA TECH, INC.
MIDLAND, TEXAS

DATE: 5/17/2012
DRAWN BY: JM
FILE: EDDY COUNTY
PROJECT: NORTH RD TB

NOT TO SCALE



- ☐ 3' CLAY INSTALLATION
- ☐ PREVIOUS INSTALLED CLAY (3')
- ☒ EXCAVATED AREA
- ☒ AUGER HOLE LOCATIONS
- ☒ BORE HOLE LOCATIONS

Tables

Table 1

[illegible]

Table 1

[illegible]

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)	Ethylbenzene (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			X	3,760	6,380	10,140	20.8	90.3	75.8	103	290	497
	"	2-2.5			X	4,120	9,100	13,220	19.0	55.5	67.4	103	245	670
	"	3-3.5			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
BH-1	"	7-7.5	2'	X		-	-	-	-	-	-	-	-	3,780
	1/25/2012	0-1	-	X		-	-	-	-	-	-	-	-	290
	"	2-3	-	X		-	-	-	-	-	-	-	-	231
	"	4-5	-	X		-	-	-	-	-	-	-	-	<200
	"	6-7	-	X		-	-	-	-	-	-	-	-	334
CS-4	"	9-10	-	X		-	-	-	-	-	-	-	-	<200
	4/24/2012	3	-	X	-	-	-	-	-	-	-	-	-	305
	"	-	-	X	-	-	-	-	-	-	-	-	-	921
	"	-	-	X	-	-	-	-	-	-	-	-	-	155
CS-4 South Sidewall	"	-	-	X	-	-	-	-	-	-	-	-	-	272

(-) Not Analyzed
 Final Excavation Depths
 Previously installed clay material
 Clay Material 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

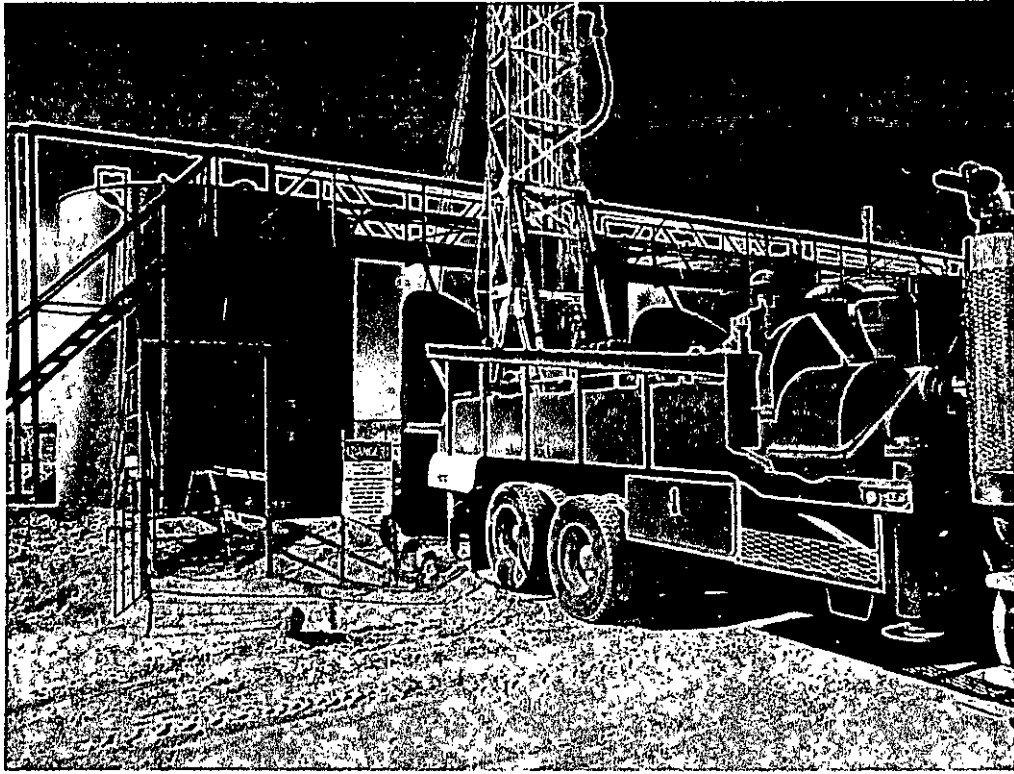


View north – Backside of tank battery near AH-1 and AH-2

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



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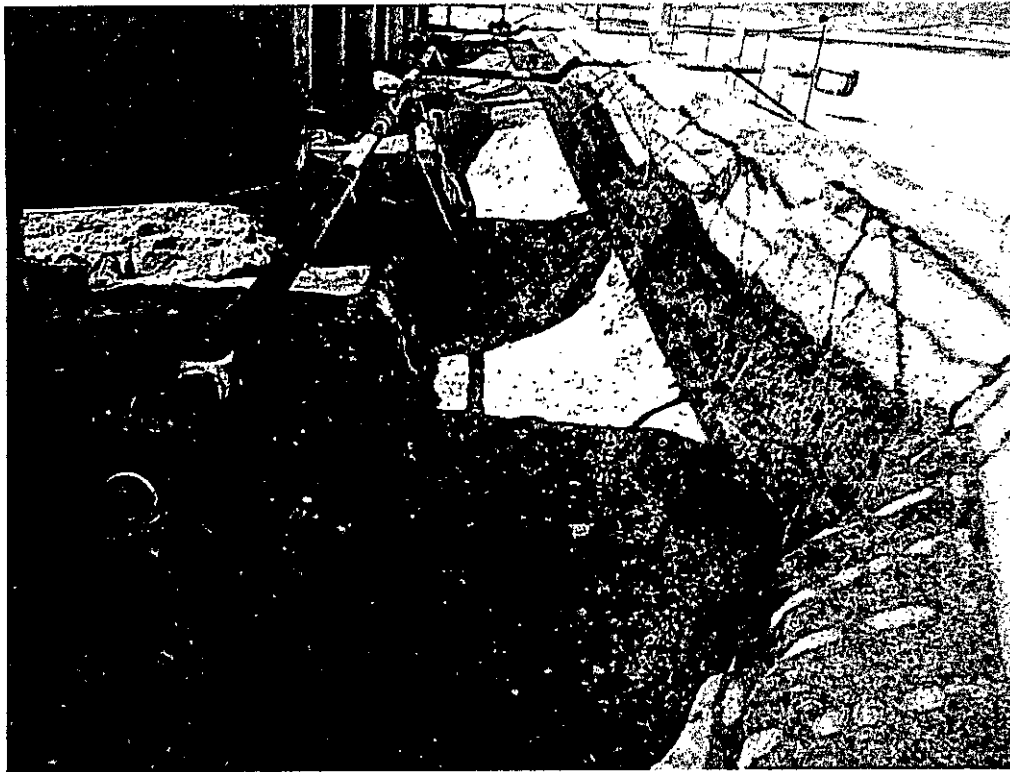


View west – Front side of tank battery, installing BH-1 near AH-4

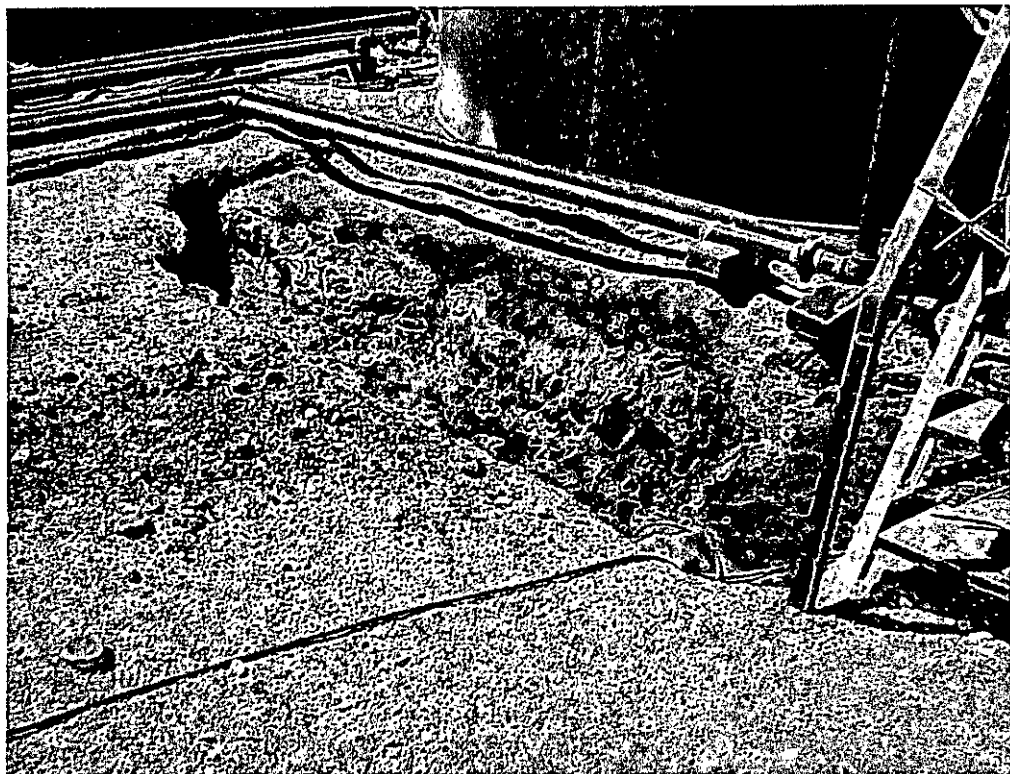
COG Operating LLC
Electra Federal North Tank Battery
Eddy County, New Mexico



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View north – Front of tank battery near BH-1

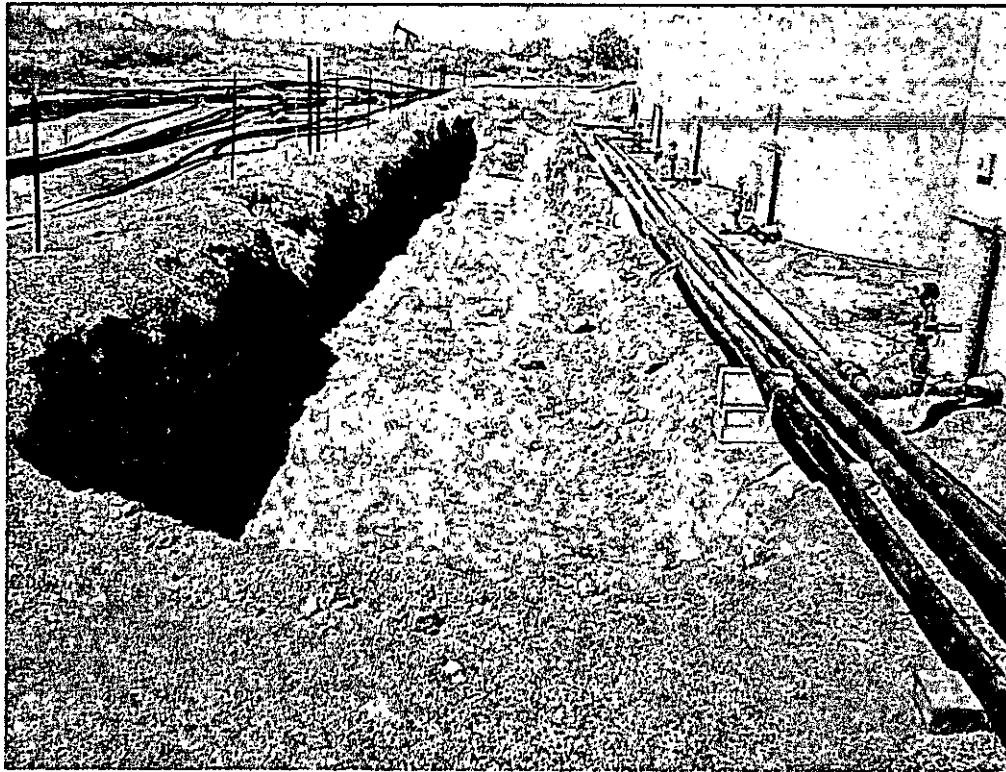


View north – Hand dug area around southern oil tank

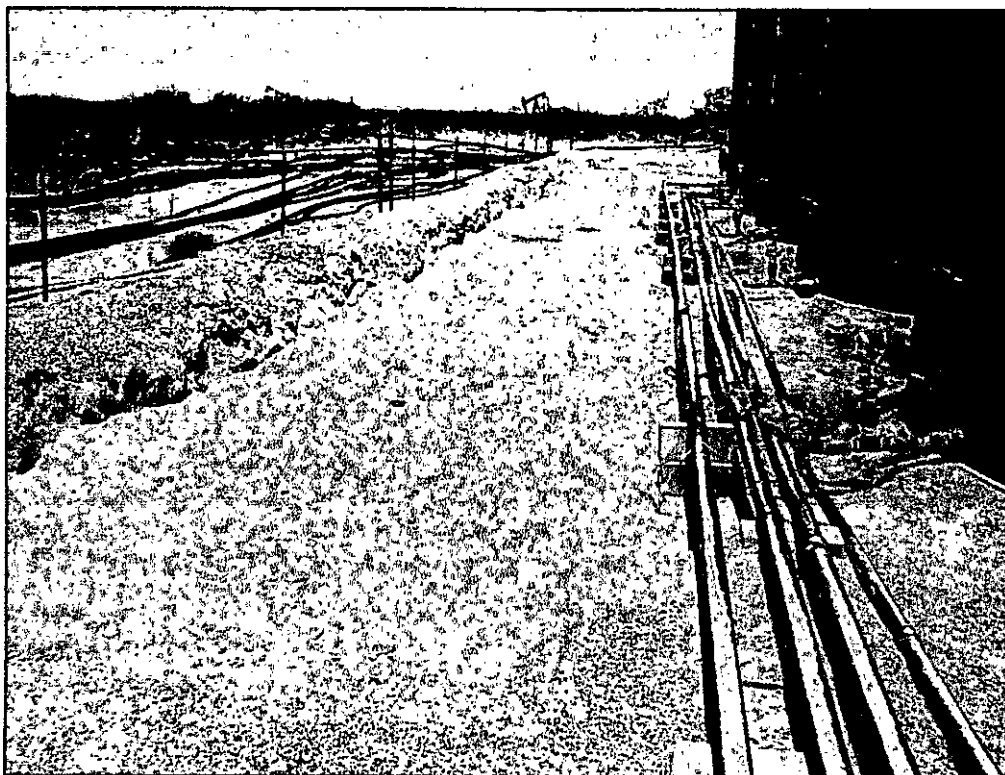
COG Operating LLC
Electra Federal North Tank Battery
Eddy County, New Mexico



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View north – Backside of Tank Battery



View north – Backfilled with clean material

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
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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.*

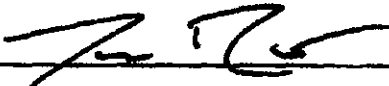
The Yale Tank Battery pump shut down causing an influx of produced water to be sent to the Electra Federal North Tank Battery. Water trucks have been assigned to a regular schedule to haul water from the Yale TB to eliminate this from occurring again in the future.

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 NMOCDBLM 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 NMOCDBLM 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 NMOCDBLM 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, NMOCDBLM acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:			
Printed Name:	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

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State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
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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.

OIL CONSERVATION DIVISION

Signature:			
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

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Address 550 W. Texas, Suite 1300 Midland, Texas 79701	Telephone No. (432) 230-0077
Facility Name Electra Federal North Tank Battery	Facility Type Tank Battery

Surface Owner Federal	Mineral Owner	Lease No. 30-015-36467
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LOCATION OF RELEASE

Unit Letter B	Section 10	Township 17-S	Range 30-E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude N 32.85309° Longitude W 103.95885°

NATURE OF RELEASE

Type of Release: Produced Water and Oil	Volume of Release 38 bbls Produced Water 2 bbls Oil	Volume Recovered 36 bbls Produced Water 1 bbl Oil
Source of Release Water Tank	Date and Hour of Occurrence 9/29/2011	Date and Hour of Discovery 9/29/2011 10:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - OCD	
By Whom? Josh Russo	Date and Hour 9/30/2011 10:32 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

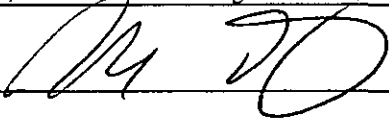
Describe Cause of Problem and Remedial Action Taken.*

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.*

Tetra Tech inspected site and collected samples to define spills extent. A work plan was submitted and approved. Soil with elevated chloride concentrations was removed and hauled away to Controlled Recovery, Inc., Hobbs, NM. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Ike Tavarez	Approved by District Supervisor:		
Title: Project Manager	Approval Date:	Expiration Date:	
E-mail Address: ike.tavarez@tetratech.com	Conditions of Approval:		Attached ☐
Date: 9-18-12 Phone: (432) 682-4559			

* Attach Additional Sheets If Necessary

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Address	550 W. Texas, Suite 1300 Midland, Texas 79701	Telephone No.	(432) 230-0077
Facility Name	Electra Federal North Tank Battery	Facility Type	Tank Battery

Surface Owner	Federal	Mineral Owner		Lease No.	30-015-36467
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LOCATION OF RELEASE

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

Latitude N 32.85309° Longitude W 103.95885°

NATURE OF RELEASE

Type of Release: Oil	Volume of Release 60 bbls	Volume Recovered 50 bbls
Source of Release Oil Tank	Date and Hour of Occurrence 9/26/2011	Date and Hour of Discovery 9/26/2011 7:00 am
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 9/26/2011 5:52 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

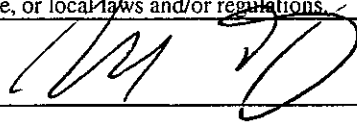
Describe Cause of Problem and Remedial Action Taken.*

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.*

Tetra Tech inspected site and collected samples to define spills extent. A work plan was submitted and approved. Soil with elevated chloride concentrations was removed and hauled away to Controlled Recovery, Inc., Hobbs, NM. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Ike Tavarez	Approved by District Supervisor:		
Title: Project Manager	Approval Date:	Expiration Date:	
E-mail Address: ike.tavarez@tetratech.com	Conditions of Approval:		Attached ☐
Date: 9-18-12	Phone: (432) 682-4559		

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	20	21	22	23	24
110	29	28	27	26	25
30	32	33	34	35	36
31					

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	32	33	34	35	
290					

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	23	24
30	29	210	27	26	25
31	32	33	34	35	36
				153	

17 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

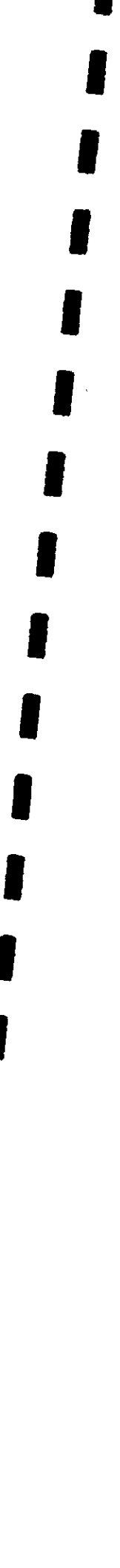
17 South			31 East		
6	5	4	3	2	
7	8	9	10	11	
18	17	16	15	14	
19	20	21	22	23	
30	29	28	27	26	
31	32	33	34	35	
				271	

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	
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

Summary Report

Ike Tavaréz
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

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
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

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
281592 - AH-1 0-1' (2' BEB)	59.6 Qr	218 Qr	144 Qr	173 Qr	8020	9190

continued ...

... continued

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
281593 - AH-1 1-1.5' (2' BEB)	44.8	196	144	177	8450	8460
281594 - AH-1 2-2.5' (2' BEB)	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	3.35
281600 - AH-2 0-1' (2' BEB)	5.38 Qr	29.2 Qr	18.8 Qr	29.4 Qr	3870	1840
281601 - AH-2 1-1.5' (2' BEB)	5.68	23.7	14.2	20.4	4140	1240
281602 - AH-2 2-2.5' (2' BEB)	3.41 Qr	34.2 Qr	22.7 Qr	37.1 Qr	3770	1320
281603 - AH-2 3-3.5' (2' BEB)	<0.100 Qs	<0.100 Qs	<0.100 Qs	<0.100 Qs	1360 Qs	47.3 Qs
281605 - AH-3 0-1' (2' BEB)	<0.100	1.16	1.59	1.92	814	505
281608 - AH-4 0-1' (2' BEB)	25.1 Qr	155 Qr	109 Qr	133 Qr	11400	6720
281609 - AH-4 1-1.5' (2' BEB)	20.8	90.3	75.8	103	6380	3760
281610 - AH-4 2-2.5' (2' BEB)	19.0	55.5	67.4	103	9100	4120
281611 - AH-4 3-3.5' (2' BEB)	<2.00 Qr	24.4 Qr	47.7 Qr	77.8 Qr	8060	3120
281612 - AH-4 4-4.5' (2' BEB)	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr	149	9.87

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

Param	Flag	Result	Units	RL
Chloride		610	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		1300	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		2920	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		5770	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		5320	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		4180	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		3670	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		500	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		250	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		2120	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		278	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		844	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		571	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		497	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		670	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		641	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		914	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		4260	mg/Kg	4

Report Date: November 15, 2011

Work Order: 11110418

Page Number: 5 of 5

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

Param	Flag	Result	Units	RL
Chloride		6630	mg/Kg	4

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

Param	Flag	Result	Units	RL
Chloride		3780	mg/Kg	4



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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5802 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.

This report consists of a total of 63 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

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Sample 281599 (AH-1 7-7.5' (2' BEB))	12
Sample 281600 (AH-2 0-1' (2' BEB))	12
Sample 281601 (AH-2 1-1.5' (2' BEB))	14
Sample 281602 (AH-2 2-2.5' (2' BEB))	15
Sample 281603 (AH-2 3-3.5' (2' BEB))	17
Sample 281605 (AH-3 0-1' (2' BEB))	18
Sample 281606 (AH-3 1-1.5' (2' BEB))	20
Sample 281607 (AH-3 2-2.5' (2' BEB))	20
Sample 281608 (AH-4 0-1' (2' BEB))	20
Sample 281609 (AH-4 1-1.5' (2' BEB))	22
Sample 281610 (AH-4 2-2.5' (2' BEB))	23
Sample 281611 (AH-4 3-3.5' (2' BEB))	25
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QC Batch 86134 - Method Blank (1)	30
QC Batch 86135 - Method Blank (1)	30
QC Batch 86138 - Method Blank (1)	30
QC Batch 86234 - Method Blank (1)	31
QC Batch 86239 - Method Blank (1)	31
QC Batch 86240 - Method Blank (1)	31
QC Batch 86241 - Method Blank (1)	32
QC Batch 86281 - Method Blank (1)	32
QC Batch 86282 - Method Blank (1)	32
QC Batch 86283 - Method Blank (1)	32
QC Batch 86315 - Method Blank (1)	33
QC Batch 86316 - Method Blank (1)	33
QC Batch 86360 - Method Blank (1)	34
QC Batch 86361 - Method Blank (1)	34
QC Batch 86366 - Method Blank (1)	34
QC Batch 86448 - Method Blank (1)	35
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QC Batch 86134 - LCS (1)	36
QC Batch 86135 - LCS (1)	36
QC Batch 86138 - LCS (1)	37
QC Batch 86234 - LCS (1)	37
QC Batch 86239 - LCS (1)	38
QC Batch 86240 - LCS (1)	38
QC Batch 86241 - LCS (1)	38
QC Batch 86281 - LCS (1)	39
QC Batch 86282 - LCS (1)	39
QC Batch 86283 - LCS (1)	40
QC Batch 86315 - LCS (1)	40
QC Batch 86316 - LCS (1)	41
QC Batch 86360 - LCS (1)	42
QC Batch 86361 - LCS (1)	42
QC Batch 86366 - LCS (1)	43
QC Batch 86448 - LCS (1)	43
QC Batch 86134 - MS (1)	44
QC Batch 86135 - MS (1)	44
QC Batch 86138 - MS (1)	45
QC Batch 86234 - MS (1)	45
QC Batch 86239 - MS (1)	46
QC Batch 86240 - MS (1)	46
QC Batch 86241 - MS (1)	47
QC Batch 86281 - MS (1)	47
QC Batch 86282 - MS (1)	48
QC Batch 86283 - MS (1)	48
QC Batch 86315 - MS (1)	49
QC Batch 86316 - MS (1)	49
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QC Batch 86138 - CCV (2)	54
QC Batch 86138 - CCV (3)	54
QC Batch 86234 - CCV (2)	54
QC Batch 86234 - CCV (3)	54
QC Batch 86239 - ICV (1)	55
QC Batch 86239 - CCV (1)	55
QC Batch 86240 - ICV (1)	55
QC Batch 86240 - CCV (1)	55
QC Batch 86241 - ICV (1)	56
QC Batch 86241 - CCV (1)	56

QC Batch 86281 - CCV (1)	56
QC Batch 86281 - CCV (2)	56
QC Batch 86281 - CCV (3)	57
QC Batch 86282 - CCV (1)	57
QC Batch 86282 - CCV (2)	57
QC Batch 86282 - CCV (3)	57
QC Batch 86283 - CCV (1)	58
QC Batch 86283 - CCV (2)	58
QC Batch 86283 - CCV (3)	58
QC Batch 86315 - CCV (1)	58
QC Batch 86315 - CCV (2)	59
QC Batch 86315 - CCV (3)	59
QC Batch 86316 - CCV (1)	59
QC Batch 86316 - CCV (2)	60
QC Batch 86316 - CCV (3)	60
QC Batch 86360 - CCV (1)	60
QC Batch 86360 - CCV (2)	60
QC Batch 86361 - CCV (1)	61
QC Batch 86361 - CCV (2)	61
QC Batch 86366 - CCV (1)	61
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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.

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Analytical Report

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

Laboratory: Midland

Analysis: BTEX

QC Batch: 86134

Prep Batch: 73143

Analytical Method: S 8021B

Date Analyzed: 2011-11-05

Sample Preparation: 2011-11-04

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter		Flag	Cert	RL	Units	Dilution	RL
				Result			
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)

QC Batch: 86239

Prep Batch: 73222

Analytical Method: SM 4500-Cl B

Date Analyzed: 2011-11-09

Sample Preparation: 2011-11-07

Prep Method: N/A

Analyzed By: AR

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

QC Batch: 86138

Prep Batch: 73148

Analytical Method: S 8015 D

Date Analyzed: 2011-11-04

Sample Preparation: 2011-11-04

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

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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

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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		1	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		1	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

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

Laboratory: Midland

Analysis: BTEX

QC Batch: 86281

Prep Batch: 73217

Analytical Method: S 8021B

Date Analyzed: 2011-11-09

Sample Preparation: 2011-11-09

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter		Flag	Cert	RL	Units	Dilution	RL
				Result			
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)

QC Batch: 86239

Prep Batch: 73222

Analytical Method: SM 4500-Cl B

Date Analyzed: 2011-11-09

Sample Preparation: 2011-11-07

Prep Method: N/A

Analyzed By: AR

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

QC Batch: 86283

Prep Batch: 73262

Analytical Method: S 8015 D

Date Analyzed: 2011-11-09

Sample Preparation: 2011-11-09

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

			RL				
Parameter		Flag	Cert	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

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

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 86282
Prep Batch: 73217

Analytical Method: S 8015 D
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-09

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	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)
QC Batch: 86239
Prep Batch: 73222

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-07

Prep Method: N/A
Analyzed By: AR
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)
QC Batch: 86239
Prep Batch: 73222

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-07

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

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

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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	RL Result	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	RL Result	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	RL Result	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

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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

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Parameter	Flag	Cert	RL Result	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
QC Batch: 86281
Prep Batch: 73217

Analytical Method: S 8021B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-09

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

Parameter	Flag	Cert	RL Result	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)
QC Batch: 86239
Prep Batch: 73222

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-07

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

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

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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		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

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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

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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
QC Batch: 86360
Prep Batch: 73337

Analytical Method: S 8021B
Date Analyzed: 2011-11-11
Sample Preparation: 2011-11-11

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

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

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)
QC Batch: 86240
Prep Batch: 73222

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-07

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

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

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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	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	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	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

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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

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	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	RL Result	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	RL Result	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

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				RL			
Parameter		Flag	Cert	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

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Parameter	Flag	Cert	RL Result	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
QC Batch: 86281
Prep Batch: 73217

Analytical Method: S 8021B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-09

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

Parameter	Flag	Cert	RL Result	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)
QC Batch: 86240
Prep Batch: 73222

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-07

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

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

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

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 86234
Prep Batch: 73224

Analytical Method: S 8015 D
Date Analyzed: 2011-11-08
Sample Preparation: 2011-11-08

Prep Method: N/A
Analyzed By: kg
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
QC Batch: 86282
Prep Batch: 73217

Analytical Method: S 8015 D
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-09

Prep Method: S 5035
Analyzed By: AG
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
QC Batch: 86281
Prep Batch: 73217

Analytical Method: S 8021B
Date Analyzed: 2011-11-09
Sample Preparation: 2011-11-09

Prep Method: S 5035
Analyzed By: AG
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

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sample 281610 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene		1	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

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Parameter	Flag	Cert	RL Result	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

QC Batch: 86315

Prep Batch: 73286

Analytical Method: S 8021B

Date Analyzed: 2011-11-10

Sample Preparation: 2011-11-10

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter		Flag	Cert	RL	Units	Dilution	RL
				Result			
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)

QC Batch: 86240

Prep Batch: 73222

Analytical Method: SM 4500-Cl B

Date Analyzed: 2011-11-09

Sample Preparation: 2011-11-07

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

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

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

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

Parameter	Flag	Cert	RL Result	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
QC Batch:	86316	Date Analyzed:	2011-11-10
Prep Batch:	73286	Sample Preparation:	2011-11-10
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	Cert	RL Result	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
QC Batch:	86315	Date Analyzed:	2011-11-10
Prep Batch:	73286	Sample Preparation:	2011-11-10
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	Qr,U	Qr,U	1	<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		1	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

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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

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

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Method Blanks

Method Blank (1) QC Batch: 86134

QC Batch: 86134
Prep Batch: 73143

Date Analyzed: 2011-11-05
QC Preparation: 2011-11-04

Analyzed By: AG
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
Prep Batch: 73143

Date Analyzed: 2011-11-05
QC Preparation: 2011-11-04

Analyzed By: AG
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
Prep Batch: 73148

Date Analyzed: 2011-11-04
QC Preparation: 2011-11-04

Analyzed By: kg
Prepared By: kg

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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
Prep Batch: 73224

Date Analyzed: 2011-11-08
QC Preparation: 2011-11-08

Analyzed By: kg
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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
Prepared By: AR

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

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Method Blank (1) QC Batch: 86241

QC Batch: 86241
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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
Prep Batch: 73217

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-08

Analyzed By: AG
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
Prep Batch: 73217

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-08

Analyzed By: AG
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

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Method Blank (1) QC Batch: 86283

QC Batch: 86283
Prep Batch: 73262

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-09

Analyzed By: kg
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
Prep Batch: 73286

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-10

Analyzed By: AG
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
Prep Batch: 73286

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-10

Analyzed By: AG
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

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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
Prep Batch: 73337

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: AG
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
Prep Batch: 73337

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: AG
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

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Method Blank (1) QC Batch: 86366

QC Batch: 86366
Prep Batch: 73341

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: kg
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
Prep Batch: 73404

Date Analyzed: 2011-11-14
QC Preparation: 2011-11-14

Analyzed By: kg
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

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86134
Prep Batch: 73143

Date Analyzed: 2011-11-05
QC Preparation: 2011-11-04

Analyzed By: AG
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
Prep Batch: 73143

Date Analyzed: 2011-11-05
QC Preparation: 2011-11-04

Analyzed By: AG
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.

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Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCS 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	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS 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
Prep Batch: 73148

Date Analyzed: 2011-11-04
QC Preparation: 2011-11-04

Analyzed By: kg
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	LCS 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	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS 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
Prep Batch: 73224

Date Analyzed: 2011-11-08
QC Preparation: 2011-11-08

Analyzed By: kg
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

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

Param	F	C	LCS 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	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS 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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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	LCS 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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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	LCS 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.

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Laboratory Control Spike (LCS-1)

QC Batch: 86241
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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
Prep Batch: 73217

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-08

Analyzed By: AG
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

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Laboratory Control Spike (LCS-1)

QC Batch: 86282
Prep Batch: 73217

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-08

Analyzed By: AG
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
Prep Batch: 73262

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-09

Analyzed By: kg
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

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Laboratory Control Spike (LCS-1)

QC Batch: 86315
Prep Batch: 73286

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-10

Analyzed By: AG
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	LCS 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	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS 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
Prep Batch: 73286

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-10

Analyzed By: AG
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	LCS 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.

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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
Prep Batch: 73337

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: AG
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
Prep Batch: 73337

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: AG
Prepared By: AG

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Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	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		1	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
Prep Batch: 73341

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: kg
Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	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		1	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
Prep Batch: 73404

Date Analyzed: 2011-11-14
QC Preparation: 2011-11-14

Analyzed By: kg
Prepared By: kg

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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
Prep Batch: 73143

Date Analyzed: 2011-11-05
QC Preparation: 2011-11-04

Analyzed By: AG
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	1.72	mg/Kg	1	2.00	<0.0118	86	69.4 - 123.6	26	20
Toluene	qr	Qr	1.70	mg/Kg	1	2.00	<0.00600	85	75.4 - 134.3	27	20
Ethylbenzene	qr	Qr	1.76	mg/Kg	1	2.00	<0.00850	88	58.8 - 133.7	27	20
Xylene	qr	Qr	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

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Matrix Spike (MS-1) Spiked Sample: 281555

QC Batch: 86135
Prep Batch: 73143

Date Analyzed: 2011-11-05
QC Preparation: 2011-11-04

Analyzed By: AG
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
Prep Batch: 73148

Date Analyzed: 2011-11-04
QC Preparation: 2011-11-04

Analyzed By: kg
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

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Matrix Spike (MS-1) Spiked Sample: 281579

QC Batch: 86234
Prep Batch: 73224

Date Analyzed: 2011-11-08
QC Preparation: 2011-11-08

Analyzed By: kg
Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	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		1	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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
Prepared By: AR

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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			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
Prep Batch: 73222

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-07

Analyzed By: AR
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
Prep Batch: 73217

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-08

Analyzed By: AG
Prepared By: AG

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

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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
Benzene		1	2.27	mg/Kg	1	2.00	<0.0118	114	69.4 - 123.6	13	20
Toluene		1	2.33	mg/Kg	1	2.00	<0.00600	116	75.4 - 134.3	13	20
Ethylbenzene		1	2.37	mg/Kg	1	2.00	<0.00850	118	58.8 - 133.7	14	20
Xylene		1	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
Prep Batch: 73217

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-08

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	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		1	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
Prep Batch: 73262

Date Analyzed: 2011-11-09
QC Preparation: 2011-11-09

Analyzed By: kg
Prepared By: kg

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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
Prep Batch: 73286

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-10

Analyzed By: AG
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		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
			Result	Units								
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

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Matrix Spike (MS-1) Spiked Sample: 282016

QC Batch: 86316
Prep Batch: 73286

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-10

Analyzed By: AG
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
Prep Batch: 73337

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: AG
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.

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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
Prep Batch: 73337

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: AG
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		Dil.	Spike	Matrix	Rec.		RPD	
			Result	Units		Amount	Result	Rec.	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
Prep Batch: 73341

Date Analyzed: 2011-11-11
QC Preparation: 2011-11-11

Analyzed By: kg
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.

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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
Prep Batch: 73404

Date Analyzed: 2011-11-14
QC Preparation: 2011-11-14

Analyzed By: kg
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.

			MSD			Spike	Matrix		Rec.		RPD	
Param		F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit	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.

			MS	MSD				Spike	MS	MSD	Rec.
Surrogate			Result	Result	Units	Dil.	Amount	Rec.	Rec.		Limit
n-Tricosane	Q _{sr}	Q _{sr}	598	533	mg/Kg	5	100	598	533	54.6 - 149.8	

Report Date: November 15, 2011
114-6401070

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Electra North Tank Battery

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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

Report Date: November 15, 2011
114-6401070

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Electra North Tank Battery

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Eddy Co., NM

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

Report Date: November 15, 2011
114-6401070

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Electra North Tank Battery

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

Report Date: November 15, 2011
114-6401070

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.4	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

Report Date: November 15, 2011
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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

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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

Report Date: November 15, 2011
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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

Report Date: November 15, 2011
114-6401070

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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

Report Date: November 15, 2011
114-6401070

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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

Report Date: November 15, 2011
114-6401070

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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	2011-11-11

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		1	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		1	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

	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 than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
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.

Analysis Request of Chain of Custody Record

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ANALYSIS REQUEST
(Circle or Specify Method No.)

TETRA TECH

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

[illegible]

REMARKS:

4.3°C

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

Summary Report

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

Report Date: February 2, 2012

Work Order: 12013004



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

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

Sample: 287740 - BH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		290	mg/Kg	4

Sample: 287741 - BH-1 2-3'

Param	Flag	Result	Units	RL
Chloride		231	mg/Kg	4

Sample: 287742 - BH-1 4-5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 287743 - BH-1 6-7'

Report Date: February 2, 2012

Work Order: 12013004

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Param	Flag	Result	Units	RL
Chloride		334	mg/Kg	4

Sample: 287744 - BH-1 9-10'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4



6701 Aberdeen Avenue, Suite B Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•568•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.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

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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.

Report Date: February 2, 2012
114-6401070

Work Order: 12013004
Electra North Tank Battery

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Eddy Co., NM

Analytical Report

Sample: 287740 - BH-1 0-1'

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

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

Sample: 287741 - BH-1 2-3'

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

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

Sample: 287742 - BH-1 4-5'

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

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

Report Date: February 2, 2012
114-6401070

Work Order: 12013004
Electra North Tank Battery

Page Number: 6 of 10
Eddy Co., NM

Sample: 287743 - BH-1 6-7'

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

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

Sample: 287744 - BH-1 9-10'

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

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

Report Date: February 2, 2012
114-6401070

Work Order: 12013004
Electra North Tank Battery

Page Number: 7 of 10
Eddy Co., NM

Method Blanks

Method Blank (1) QC Batch: 88249

QC Batch: 88249
Prep Batch: 74901

Date Analyzed: 2012-02-01
QC Preparation: 2012-02-01

Analyzed By: AR
Prepared By: AR

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

Report Date: February 2, 2012
114-6401070

Work Order: 12013004
Electra North Tank Battery

Page Number: 8 of 10
Eddy Co., NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 88249
Prep Batch: 74901

Date Analyzed: 2012-02-01
QC Preparation: 2012-02-01

Analyzed By: AR
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
Prep Batch: 74901

Date Analyzed: 2012-02-01
QC Preparation: 2012-02-01

Analyzed By: AR
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.

Report Date: February 2, 2012
114-6401070

Work Order: 12013004
Electra North Tank Battery

Page Number: 9 of 10
Eddy Co., NM

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 than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
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.

Summary Report

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

Report Date: May 16, 2012

Work Order: 12050206



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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
295965	CS-1 Bottom 2' (AH-1)	soil	2012-04-24	00:00	2012-05-02
295966	CS-1 East Sidewall (AH-1)	soil	2012-04-24	00:00	2012-05-02
295967	CS-1 West Sidewall (AH-1)	soil	2012-04-24	00:00	2012-05-02
295968	CS-1 South Sidewall (AH-1)	soil	2012-04-24	00:00	2012-05-02
295969	CS-2 Bottom 3' (AH-2)	soil	2012-04-24	00:00	2012-05-02
295970	CS-2 East Sidewall (AH-2)	soil	2012-04-24	00:00	2012-05-02
295971	CS-2 West Sidewall (AH-2)	soil	2012-04-24	00:00	2012-05-02
295972	CS-3 Bottom 1' (AH-3)	soil	2012-04-25	00:00	2012-05-02
295973	CS-3 North Sidewall (AH-3)	soil	2012-04-25	00:00	2012-05-02
295974	CS-3 East Sidewall (AH-3)	soil	2012-04-25	00:00	2012-05-02
295975	CS-3 West Sidewall (AH-3)	soil	2012-04-25	00:00	2012-05-02
295976	CS-4 Bottom 3' (AH-4)	soil	2012-04-25	00:00	2012-05-02
295977	CS-4 East Sidewall (AH-4)	soil	2012-04-25	00:00	2012-05-02
295978	CS-4 West Sidewall (AH-4)	soil	2012-04-25	00:00	2012-05-02
295979	CS-4 South Sidewall (AH-4)	soil	2012-04-25	00:00	2012-05-02

Sample: 295965 - CS-1 Bottom 2' (AH-1)

Param	Flag	Result	Units	RL
Chloride		770	mg/Kg	4

Sample: 295966 - CS-1 East Sidewall (AH-1)

Param	Flag	Result	Units	RL
Chloride		857	mg/Kg	4

Sample: 295967 - CS-1 West Sidewall (AH-1)

Param	Flag	Result	Units	RL
Chloride		29.2	mg/Kg	4

Sample: 295968 - CS-1 South Sidewall (AH-1)

Param	Flag	Result	Units	RL
Chloride		82.8	mg/Kg	4

Sample: 295969 - CS-2 Bottom 3' (AH-2)

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

Sample: 295970 - CS-2 East Sidewall (AH-2)

Param	Flag	Result	Units	RL
Chloride		72.7	mg/Kg	4

Sample: 295971 - CS-2 West Sidewall (AH-2)

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

Sample: 295972 - CS-3 Bottom 1' (AH-3)

Param	Flag	Result	Units	RL
Chloride		465	mg/Kg	4

Sample: 295973 - CS-3 North Sidewall (AH-3)

Param	Flag	Result	Units	RL
Chloride		427	mg/Kg	4

Sample: 295974 - CS-3 East Sidewall (AH-3)

Param	Flag	Result	Units	RL
Chloride		310	mg/Kg	4

Sample: 295975 - CS-3 West Sidewall (AH-3)

Param	Flag	Result	Units	RL
Chloride		606	mg/Kg	4

Sample: 295976 - CS-4 Bottom 3' (AH-4)

Param	Flag	Result	Units	RL
Chloride		305	mg/Kg	4

Sample: 295977 - CS-4 East Sidewall (AH-4)

Param	Flag	Result	Units	RL
Chloride		921	mg/Kg	4

Sample: 295978 - CS-4 West Sidewall (AH-4)

Param	Flag	Result	Units	RL
Chloride		155	mg/Kg	4

Sample: 295979 - CS-4 South Sidewall (AH-4)

Param	Flag	Result	Units	RL
Chloride		272	mg/Kg	4



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E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report (Corrected Report)

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

Report Date: May 16, 2012

Work Order: 12050206



Project Location: Eddy Co., NM
Project Name: COG/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
295965	CS-1 Bottom 2' (AH-1)	soil	2012-04-24	00:00	2012-05-02
295966	CS-1 East Sidewall (AH-1)	soil	2012-04-24	00:00	2012-05-02
295967	CS-1 West Sidewall (AH-1)	soil	2012-04-24	00:00	2012-05-02
295968	CS-1 South Sidewall (AH-1)	soil	2012-04-24	00:00	2012-05-02
295969	CS-2 Bottom 3' (AH-2)	soil	2012-04-24	00:00	2012-05-02
295970	CS-2 East Sidewall (AH-2)	soil	2012-04-24	00:00	2012-05-02
295971	CS-2 West Sidewall (AH-2)	soil	2012-04-24	00:00	2012-05-02
295972	CS-3 Bottom 1' (AH-3)	soil	2012-04-25	00:00	2012-05-02
295973	CS-3 North Sidewall (AH-3)	soil	2012-04-25	00:00	2012-05-02
295974	CS-3 East Sidewall (AH-3)	soil	2012-04-25	00:00	2012-05-02
295975	CS-3 West Sidewall (AH-3)	soil	2012-04-25	00:00	2012-05-02
295976	CS-4 Bottom 3' (AH-4)	soil	2012-04-25	00:00	2012-05-02
295977	CS-4 East Sidewall (AH-4)	soil	2012-04-25	00:00	2012-05-02
295978	CS-4 West Sidewall (AH-4)	soil	2012-04-25	00:00	2012-05-02
295979	CS-4 South Sidewall (AH-4)	soil	2012-04-25	00:00	2012-05-02

Report Corrections (Work Order 12050206)

- Added Cl for sample 295979 5-16-12.

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

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



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

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Case Narrative

Samples for project COG/Electra North Tank Battery were received by TraceAnalysis, Inc. on 2012-05-02 and assigned to work order 12050206. Samples for work order 12050206 were received intact at a temperature of 4.5 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	77254	2012-05-09 at 10:32	91063	2012-05-10 at 10:33
Chloride (Titration)	SM 4500-Cl B	77254	2012-05-09 at 10:32	91093	2012-05-10 at 15:19
Chloride (Titration)	SM 4500-Cl B	77424	2012-05-16 at 09:26	91262	2012-05-16 at 13:26

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 12050206 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Analytical Report

Sample: 295965 - CS-1 Bottom 2' (AH-1)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-05-10	Analyzed By:	AR
QC Batch:	91063	Sample Preparation:	2012-05-10	Prepared By:	AR
Prep Batch:	77254				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			770	mg/Kg	5	4.00

Sample: 295966 - CS-1 East Sidewall (AH-1)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-05-10	Analyzed By:	AR
QC Batch:	91063	Sample Preparation:	2012-05-10	Prepared By:	AR
Prep Batch:	77254				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			857	mg/Kg	5	4.00

Sample: 295967 - CS-1 West Sidewall (AH-1)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-05-10	Analyzed By:	AR
QC Batch:	91063	Sample Preparation:	2012-05-10	Prepared By:	AR
Prep Batch:	77254				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			29.2	mg/Kg	5	4.00

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Sample: 295968 - CS-1 South Sidewall (AH-1)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91063 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			82.8	mg/Kg	5	4.00

Sample: 295969 - CS-2 Bottom 3' (AH-2)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91063 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

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

Sample: 295970 - CS-2 East Sidewall (AH-2)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			72.7	mg/Kg	5	4.00

Sample: 295971 - CS-2 West Sidewall (AH-2)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

Page Number: 7 of 16
Eddy Co., NM

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

Sample: 295972 - CS-3 Bottom 1' (AH-3)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			465	mg/Kg	5	4.00

Sample: 295973 - CS-3 North Sidewall (AH-3)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			427	mg/Kg	5	4.00

Sample: 295974 - CS-3 East Sidewall (AH-3)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			310	mg/Kg	5	4.00

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Sample: 295975 - CS-3 West Sidewall (AH-3)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			606	mg/Kg	5	4.00

Sample: 295976 - CS-4 Bottom 3' (AH-4)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			305	mg/Kg	5	4.00

Sample: 295977 - CS-4 East Sidewall (AH-4)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			921	mg/Kg	5	4.00

Sample: 295978 - CS-4 West Sidewall (AH-4)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 91093 Date Analyzed: 2012-05-10 Analyzed By: AR
Prep Batch: 77254 Sample Preparation: 2012-05-10 Prepared By: AR

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			155	mg/Kg	5	4.00

Sample: 295979 - CS-4 South Sidewall (AH-4)

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 91262

Prep Batch: 77424

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-05-16

Sample Preparation: 2012-05-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			272	mg/Kg	5	4.00

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Method Blanks

Method Blank (1) QC Batch: 91063

QC Batch: 91063
Prep Batch: 77254

Date Analyzed: 2012-05-10
QC Preparation: 2012-05-09

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 91093

QC Batch: 91093
Prep Batch: 77254

Date Analyzed: 2012-05-10
QC Preparation: 2012-05-09

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 91262

QC Batch: 91262
Prep Batch: 77424

Date Analyzed: 2012-05-16
QC Preparation: 2012-05-16

Analyzed By: AR
Prepared By: AR

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

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

Page Number: 11 of 16
Eddy Co., NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 91063
Prep Batch: 77254

Date Analyzed: 2012-05-10
QC Preparation: 2012-05-09

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2630	mg/Kg	1	2500	<3.85	105	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			2510	mg/Kg	1	2500	<3.85	100	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: 91093
Prep Batch: 77254

Date Analyzed: 2012-05-10
QC Preparation: 2012-05-09

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2660	mg/Kg	1	2500	<3.85	106	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2720	mg/Kg	1	2500	<3.85	109	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 91262
Prep Batch: 77424

Date Analyzed: 2012-05-16
QC Preparation: 2012-05-16

Analyzed By: AR
Prepared By: AR

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2450	mg/Kg	1	2500	<3.85	98	85 - 115

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	85 - 115	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: 295969

QC Batch: 91063
Prep Batch: 77254

Date Analyzed: 2012-05-10
QC Preparation: 2012-05-09

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2570	mg/Kg	5	2500	<19.2	103	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			2680	mg/Kg	5	2500	<19.2	107	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: 295978

QC Batch: 91093
Prep Batch: 77254

Date Analyzed: 2012-05-10
QC Preparation: 2012-05-09

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2670	mg/Kg	5	2500	155	101	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			2780	mg/Kg	5	2500	155	105	79.4 - 120.6	4	20

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

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Matrix Spike (MS-1) Spiked Sample: 297043

QC Batch: 91262
Prep Batch: 77424

Date Analyzed: 2012-05-16
QC Preparation: 2012-05-16

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2530	mg/Kg	5	2500	112	97	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			2630	mg/Kg	5	2500	112	101	79.4 - 120.6	4	20

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

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Calibration Standards

Standard (CCV-1)

QC Batch: 91063

Date Analyzed: 2012-05-10

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	2012-05-10

Standard (CCV-2)

QC Batch: 91063

Date Analyzed: 2012-05-10

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	2012-05-10

Standard (CCV-1)

QC Batch: 91093

Date Analyzed: 2012-05-10

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	99.5	100	85 - 115	2012-05-10

Standard (CCV-2)

QC Batch: 91093

Date Analyzed: 2012-05-10

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	2012-05-10

Report Date: May 16, 2012
114-6401070

Work Order: 12050206
COG/Electra North Tank Battery

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Eddy Co., NM

Standard (CCV-1)

QC Batch: 91262

Date Analyzed: 2012-05-16

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	2012-05-16

Standard (CCV-2)

QC Batch: 91262

Date Analyzed: 2012-05-16

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	99.5	100	85 - 115	2012-05-16

Appendix

Report Definitions

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

Laboratory Certifications

	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
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.

Analysis Request of Chain of Custody Record



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

CLIENT NAME: 006						SITE MANAGER: Ike Tavaraz							PRESERVATIVE METHOD												
PROJECT NO.: 114-6401070						PROJECT NAME: 006 / Electric North Fed TB Eddy Co, NM																			
LAB I.D. NUMBER		DATE		TIME		MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION									NUMBER OF CONTAINERS				FILTERED (Y/N)			
975		4/25				S		X	CS-3 West Sidewall (AH-3)									1				HCL	HNO3	ICE	NONE
976									CS-4 Bottom 3' (AH-4)																
977									CS-4 East Sidewall (AH-4)																
978									CS-4 West Sidewall (AH-4)																
979									CS-4 South Sidewall (AH-4)																
RECEIVING LABORATORY:																									
RELINQUISHED BY: (Signature) [Signature]													Date: 5/12/12 Time: 9:00 am												
RELINQUISHED BY: (Signature)													Date: _____ Time: _____												
RELINQUISHED BY: (Signature)													Date: _____ Time: _____												
RELINQUISHED BY: (Signature)													Date: _____ Time: _____												
ADDRESS: 213 land													CITY: STATE: ZIP: PHONE: DATE: TIME:												

REMARKS: All tanks mudland

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

Analysis Request of Chain of Custody Record



TETRA TECH

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

(432) 682-4559 • Fax (432) 682-3946

[illegible]

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12050206

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 2

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

CLIENT NAME: 006		SITE MANAGER: Ike Turner	
PROJECT NO: 114-6401070		PROJECT NAME: 006 / Ectra North Fed TB	
LAB I.D. NUMBER		SAMPLE IDENTIFICATION	
DATE	TIME	DATE	TIME
2012	4:15	2012	4:15
975		CS-3	West Sidewall (AH-3)
976		CS-4	Bottom 3' (AH-4)
977		CS-4	East Sidewall (AH-4)
978		CS-4	West Sidewall (AH-4)
979		CS-4	South Sidewall (AH-4)

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTX 8021B	TPH 8015 MOD. TX1005 (Ext. to C38)	PAH 8270	HCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd V Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/824	GC/MS Semi. Vol. 8270/825	PCB's 8080/808	Pest. 808/808	Chloride 5/11/12 9:52	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
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RECEIVED BY: (Signature)	DATE: 5/12/12	TIME: 4:15
RELINQUISHED BY: (Signature)	DATE: 5/12/12	TIME: 4:15
RECEIVED BY: (Signature)	DATE: 5/12/12	TIME: 4:15
RELINQUISHED BY: (Signature)	DATE: 5/12/12	TIME: 4:15
RECEIVING LABORATORY: Tetra Tech	STATE: TX	ZIP: 79705
ADDRESS: 1910 N. Big Spring St.	PHONE: (432) 682-4559	DATE: 5/12/12
CITY: Midland	TIME: 4:15	

SAMPLE CONDITION WHEN RECEIVED:

REMARKS: All tests Midland

TETRA TECH CONTACT PERSON: Ike Turner

SAMPLE SHIPPED BY: (Circle)
FEDEX
HARD DELIVERED
BUS
UPS
OTHER

SAMPLED BY: (Print & Initial) JT

Date: 5/12/12

Time: 4:15

Results by:

RUSH Charges Authorized:

Yes No

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