SITE INFORMATION

Report Type: Closure Report

General Site Information:						
Site:	Electra Federal #9 - flow line					
Company:	COG Operating LLC					
Section, Township and Range	Unit D	Sec 15	T17S	R30E		
Lease Number:	API-30-015-34721					
County:	Eddy County					
GPS:	32.83955° N			103.96537° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	In Loco Hills, from the intersection of CR 219 and 82, travel north on CR 219 (1.2 miles), turn right and travel (0.4 miles), turn right and travel (0.2 miles), turn left and travel (0.3 miles) to location.					

Release Data:	
Date Released:	3/22/2012
Type Release:	Oil and Produced Water
Source of Contamination:	Flowline failure
Fluid Released:	7 bbls oil 15 bbls water
Fluids Recovered:	6 bbls oil 14 bbls water

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

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

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

TETRA TECH

October 17, 2012

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

Re: Closure Report for the COG Operating LLC., Electra Federal #9 Flow line, Unit D Section 15, Township 17 South, Range 30 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Electra Federal #9 flow line located in Unit D, Section 15, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.83955°, W 103.96537°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on March 22, 2012, and released approximately twenty two (22) barrels of produced fluid from a flow line. To alleviate the problem, COG personnel repaired the flow line. Twenty (20) barrels of standing fluids were recovered. The spill initiated west of the tank battery affecting an area approximately 20' X 160' in the pasture outside the tank battery facility. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 15. According to the NMOCD groundwater map, the depth to groundwater in this area is approximately 325' below surface. The groundwater data is shown in Appendix B.

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

Regulatory

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

Soil Assessment and Analytical Results

On April 19, 2012, Tetra Tech personnel inspected and sampled the spill area. Five (5) auger holes (AH-1 through AH-5) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole and spill area are shown on Figure 3.

Referring to Table 1, samples in the areas of AH-3, AH-4 and AH-5 exceeded the RRAL for either TPH or BTEX. Auger holes (AH-3 and AH-4) showed a shallow impact to the soils, which declined below the RRAL at 2.0' and 1.0', respectively. The area of AH-5 showed a deeper impact with TPH and total BTEX exceeding the RRAL at 0-1' and declined below the RRAL at 1-1.5' below surface. However, the deeper samples at 4-4.5' showed TPH, Benzene and total BTEX concentrations exceeding the RRAL, but declined at 5.0' below surface.

Elevated chlorides were detected in all of the auger holes. Auger hole (AH-2) did not show a significant impact to the soils, with a chloride spike at 2-2.5'of 1,440 mg/kg. In addition, the area of AH-5 showed an elevated chloride at 3-3.5' of 14,800 mg/kg, which significantly declined with depth. In the area of AH-4, elevated chloride concentrations were detected from 0 to 7.0' below surface, with chloride concentrations ranging from 1,360 mg/kg to 12,200 mg/kg. AH-1 and AH-3 bottom hole samples exhibited chloride concentrations of 2,330 mg/kg at 3-3.5' and 16,800 mg/kg at 2.5-3.0',

respectively. These impacted areas were not vertically defined. Due to the lines in the area, a drilling rig was not accessible to the area.

Remediation and Conclusion

Based on the approved work plan, Tetra Tech personnel supervised the excavation of the site. The excavated areas measured approximately 10' x 20' (AH-1), 35' x 2' (AH-2), 50' x 3' (AH-3), 35' x 12' (AH-4) and 25' x 12' (AH-5) at depths of approximately 4.0', 1.0', 3.0', 7.0' and 3.0' below surface, respectively. The excavated areas and depths are highlighted in Table 1. Approximately 265 cubic yards of soil were excavated and transported to the R360 facility for proper disposal.

For delineation, two trenches (T-1 and T-2) were installed on the east side of the spill area. One was installed in the excavation of AH-3 (T-1) and one to the east of the excavation of AH-2 (T-2) in order to define the extent of the spill footprint. According to field screening and samples collected, it was determined that only T-1 had elevated chloride levels. This area could only be excavated safely to 3.0' below surface due facility layout and three steel flow lines along the surface.

Once excavated, bottom hole and side wall confirmation samples were collected from the excavation in the areas of auger holes (AH-1 through AH-5) for chlorides. The sampling results are shown in Table 2.

Referring to Table 2, elevated chloride concentrations were detected in the bottom hole samples of areas of AH-1, AH-4 and AH-5 and sidewall samples in AH-1 and AH-5. It was determined that further excavation of these areas was not practical due to facility layout and steel flow lines at the surface.

Once excavated to the appropriate depths, the areas of AH-1, AH-3, AH-4 and AH-5 were capped with clay material and then backfilled to grade with clean material. In addition, the pasture was seeded with a BLM approved mixture, then ripped and windrows were installed in order to prevent erosion.

TETRA TECH

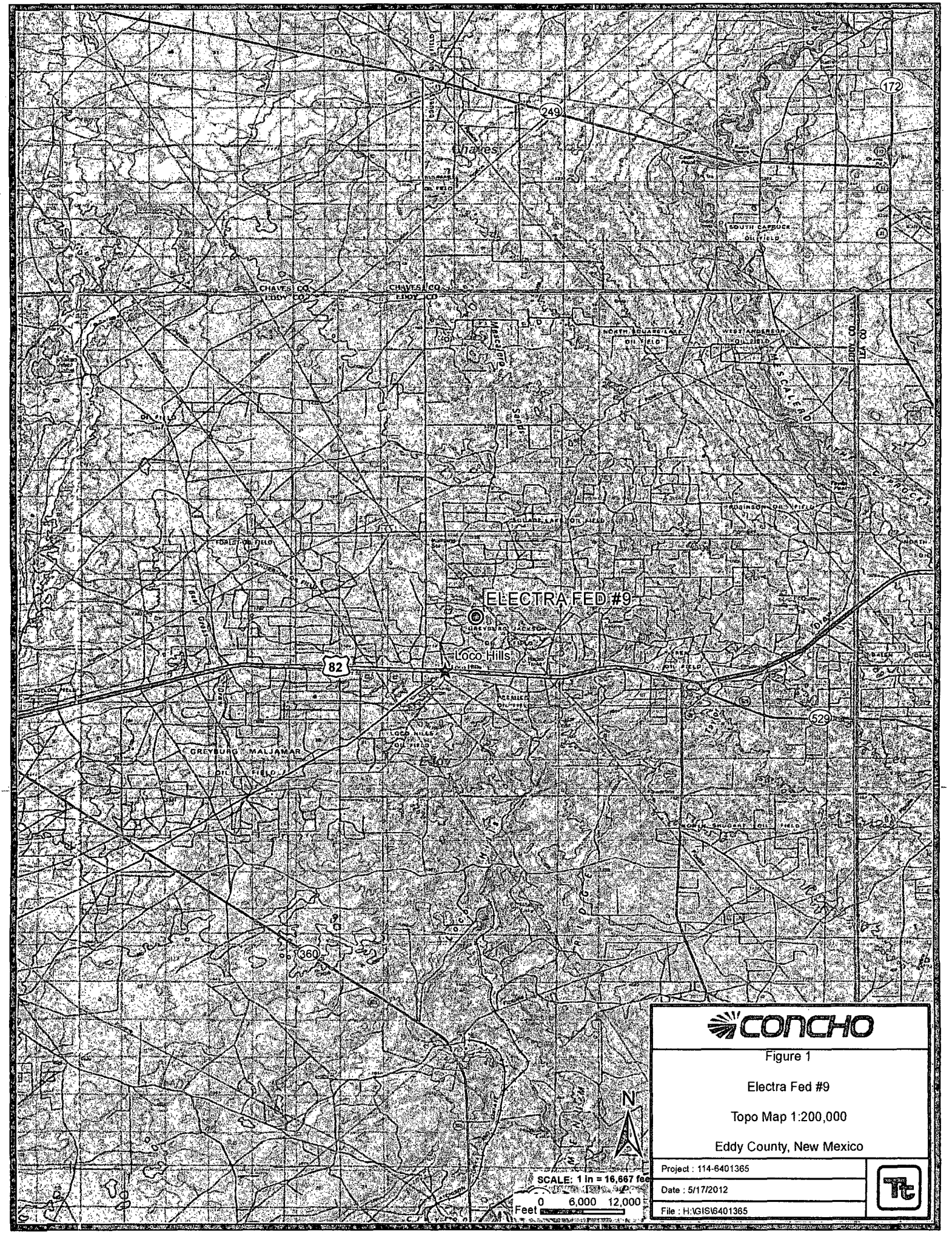
Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, PG
Senior Project Manager

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

FIGURES



CONCHO

Figure 1

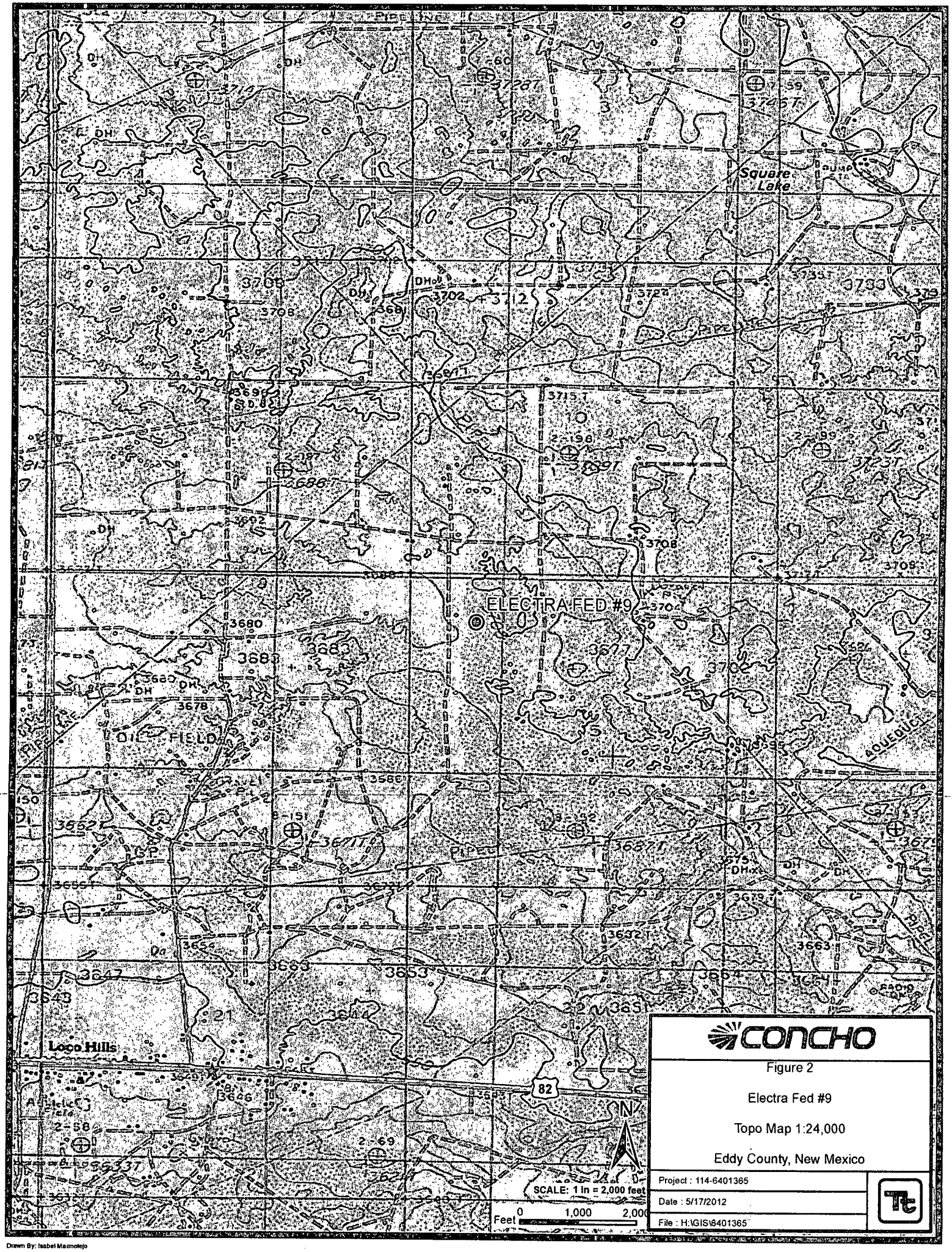
Electra Fed #9

Topo Map 1:200,000

Eddy County, New Mexico

Project : 114-6401365	
Date : 5/17/2012	
File : H:\GIS\6401365	

Drawn By: Isabel Manriquejo



CONCHO

Figure 2

Electra Fed #9

Topo Map 1:24,000

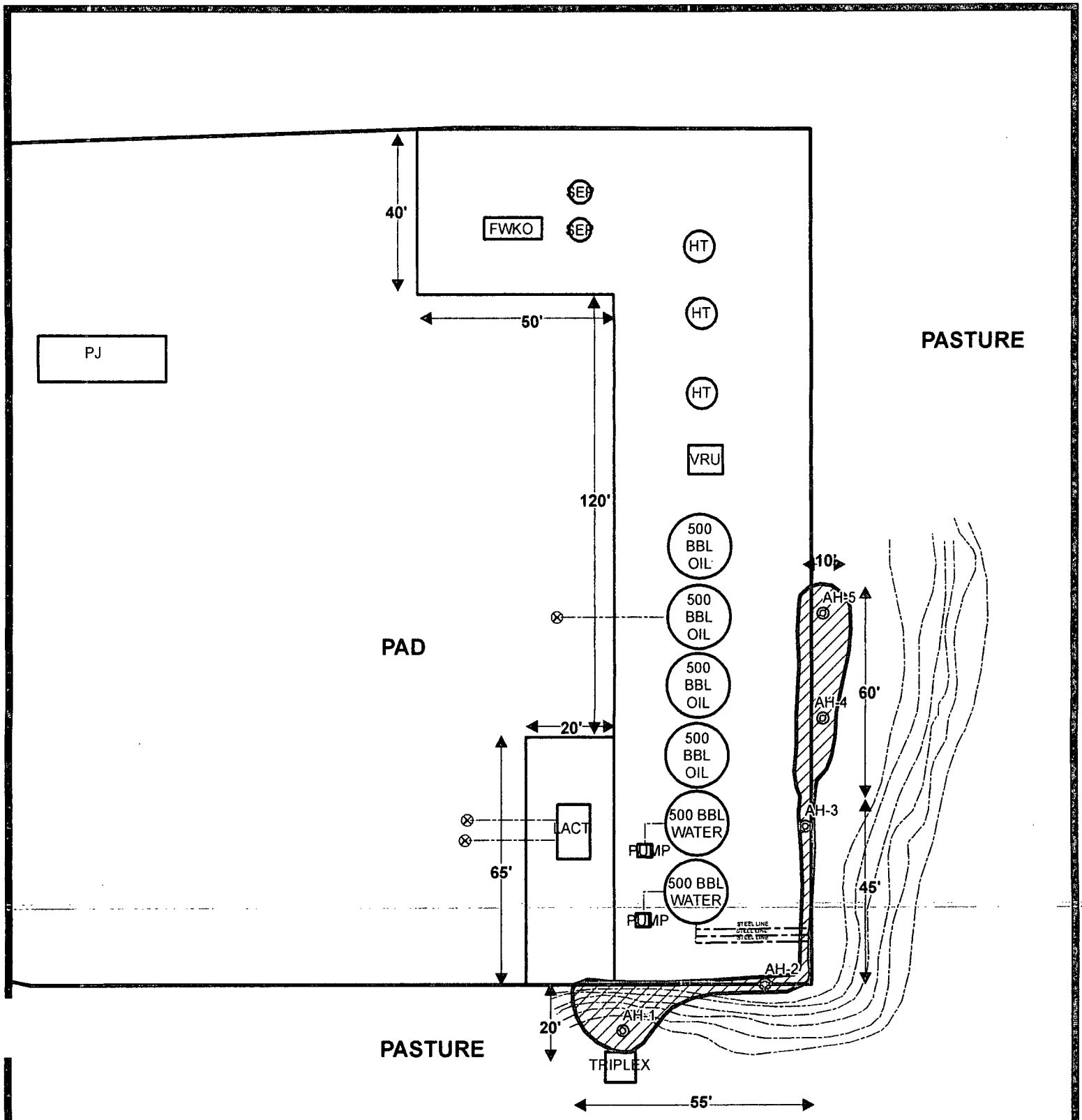
Eddy County, New Mexico

Project : 114-6401365

Date : 5/17/2012

File : H:\GIS\6401365

Drawn By: Isabel Macmolejo



EXPLANATION

- AUGER HOLE SAMPLE LOCATION
- POLYLINES
- SPILL AREA

N

SCALE: 1 in = 38 feet

Feet 0 20 40

CONCHO

Figure 3

Electra Fed #9

Spill Assessment Map

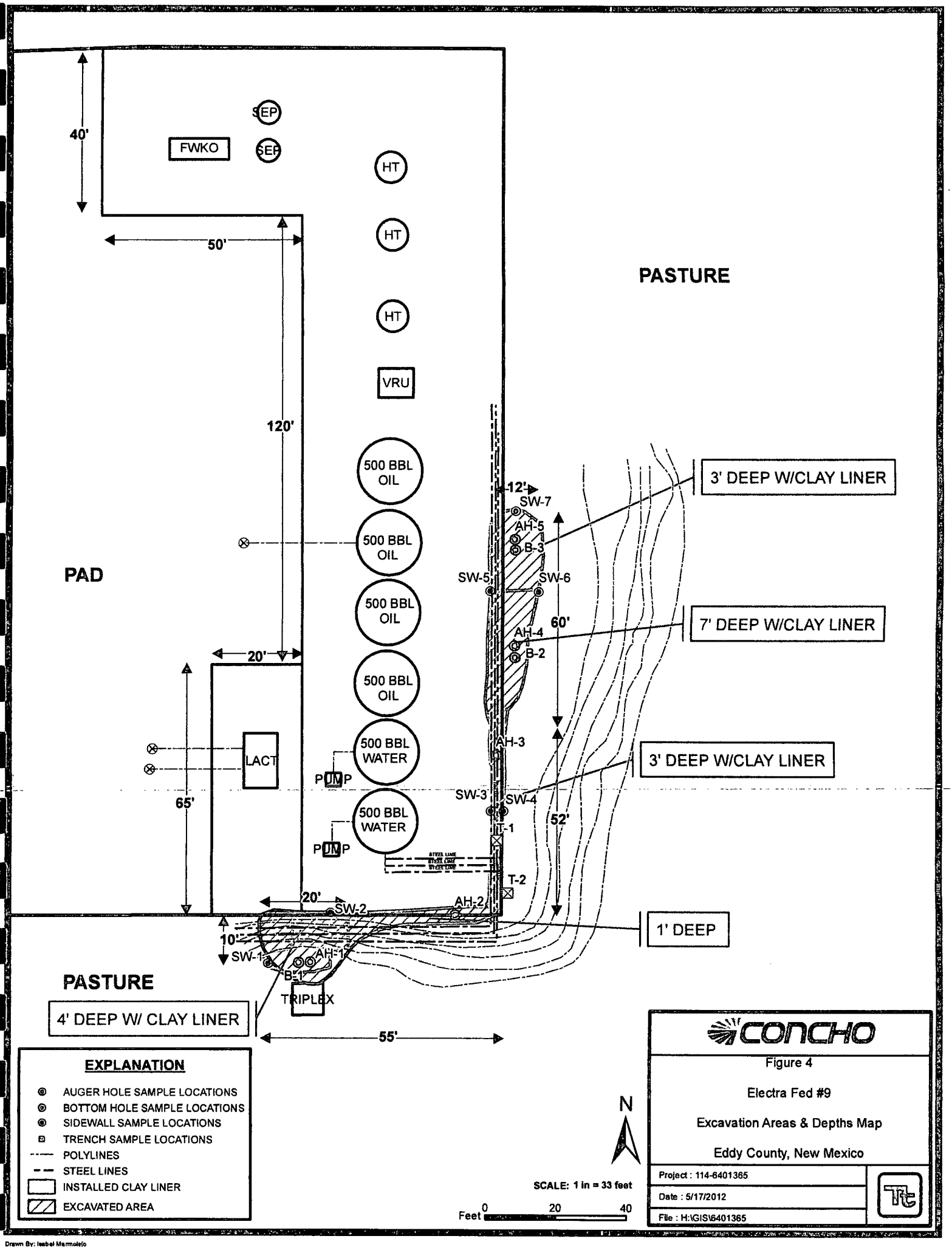
Eddy County, New Mexico

Project : 114-6401365

Date : 5/17/2012

File : H:\GIS\6401365

Drawn By: Isabel Marmolejo



Drawn By: Isabel Marmolejo

TABLES

Table 1
COG Operating LLC.
Electra Federal #9
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-1	4/19/2012	0-1	-		X	8.09	<50.0	8.09	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,190
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	1,320
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	805
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	2,330
AH-2	4/19/2012	0-1	-		X	179	2,210	2,389	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	530
	"	1-1.5	-	X		-	-	-	-	-	-	-	-	211
	"	2-2.5	-	X		-	-	-	-	-	-	-	-	1,440
	"	3-3.5	-	X		-	-	-	-	-	-	-	-	427
AH-3	4/19/2012	0-1	-		X	5,080	3,610	**8,690**	6.97	46.3	51.4	84.9	**190**	11,700
	"	1-1.5	-		X	3,330	3,500	**6,830**	**119.8**	119	83.0	118	**440**	5,600
	"	2-2.5	-		X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	10,100
T	"	2.5-3	-		X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	16,800

Table 1
COG Operating LLC.
Electra Federal #9
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-4	4/19/2012	0-1	-		X	1,490	3,940	**5,430**	1.74	17.9	23.2	35.7	**78.5**	2,540
	"	1-1.5	-		X	206	399	605	0.282	0.848	0.506	1.71	3.35	1,360
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	4,950
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	7,360
	"	4-4.5	-		X	-	-	-	-	-	-	-	-	8,540
	"	5-5.5	-		X	-	-	-	-	-	-	-	-	12,200
	"	6-6.5	-		X	-	-	-	-	-	-	-	-	4,700
	"	7-7.5	-		X	-	-	-	-	-	-	-	-	4,280
	"	8-8.5	-	X		-	-	-	-	-	-	-	-	1,410
	"	9-9.5	-	X		-	-	-	-	-	-	-	-	356
AH-5	4/19/2012	0-1	-		X	3,880	3,550	**7,430**	2.36	8.49	18.7	43.7	**73.3**	73.1
	"	1-1.5	-		X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	53.6
	"	2-2.5	-		X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	770
	"	3-3.5	-	X		4,210	3,600	**7,810**	**10.7**	64.9	56.6	88.6	**221**	14,800
	"	4-4.5	-	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,160
	"	5-5.5	-	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	39.0
	"	6-6.5	-	X		-	-	-	-	-	-	-	-	29.2

BEB Below Excavation Bottom

(--) Not Analyzed

Excavated Depths

T Install backhoe trench to define extents

Clay Liner Installed

Table 2
COG Operating LLC.
Electra Federal #9
Eddy County, New Mexico

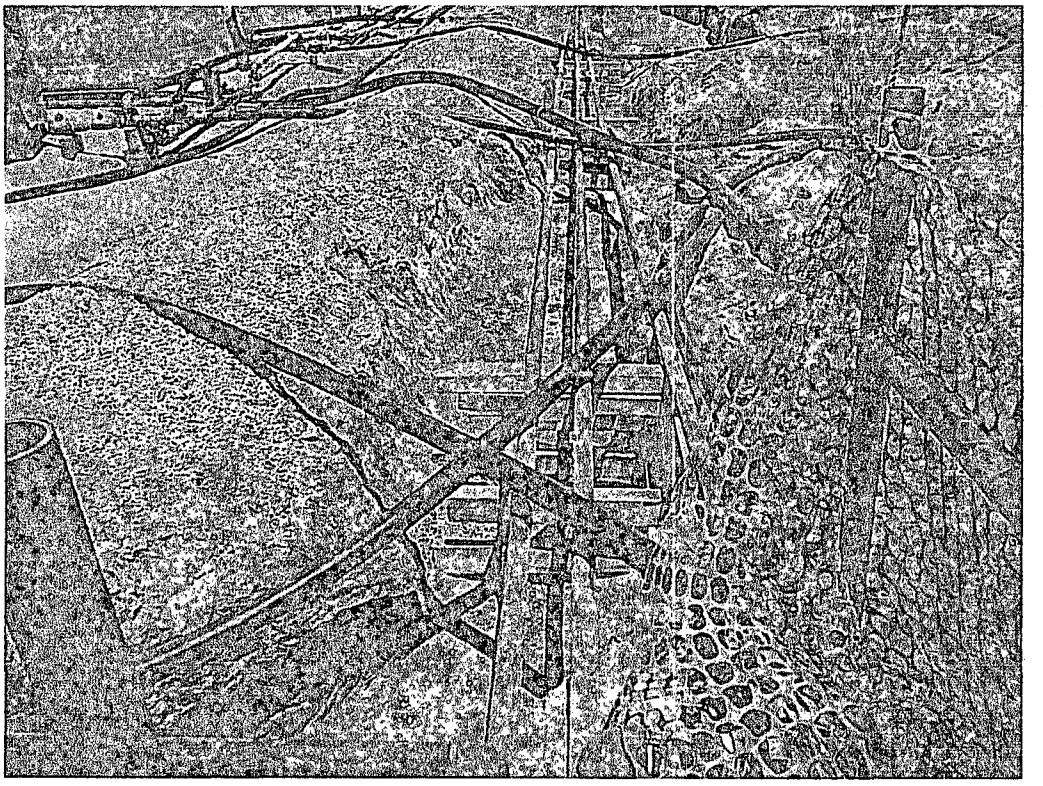
Sample ID	Sample Date	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
			In-Situ	Removed	
Side Wall 1	6/27/2012	-	X		1,340
Side Wall 2	6/27/2012	-	X		249
Side Wall 3	6/28/2012	-	X		361
Side Wall 4	6/28/2012	-	X		63.5
Side Wall 5	6/29/2012	-	X		5,730
Side Wall 6	6/29/2012	-	X		68.1
Side Wall 7	6/29/2012	-	X		131
Bottom Hole 1	6/27/2012	4	X		5,460
Bottom Hole 2	6/29/2012	7	X		4,460
Bottom Hole 3	6/29/2012	3	X		2,780
T-1	6/28/2012	3	X		5,620
	"	4	X		3,300
	"	6	X		2,580
	"	8	X		3,480
	"	10	X		2,670
T-2	7/6/2012	2	X		594
	"	4	X		703
	"	6	X		337
	"	8	X		469
	"	10	X		347

(--) Not Analyzed

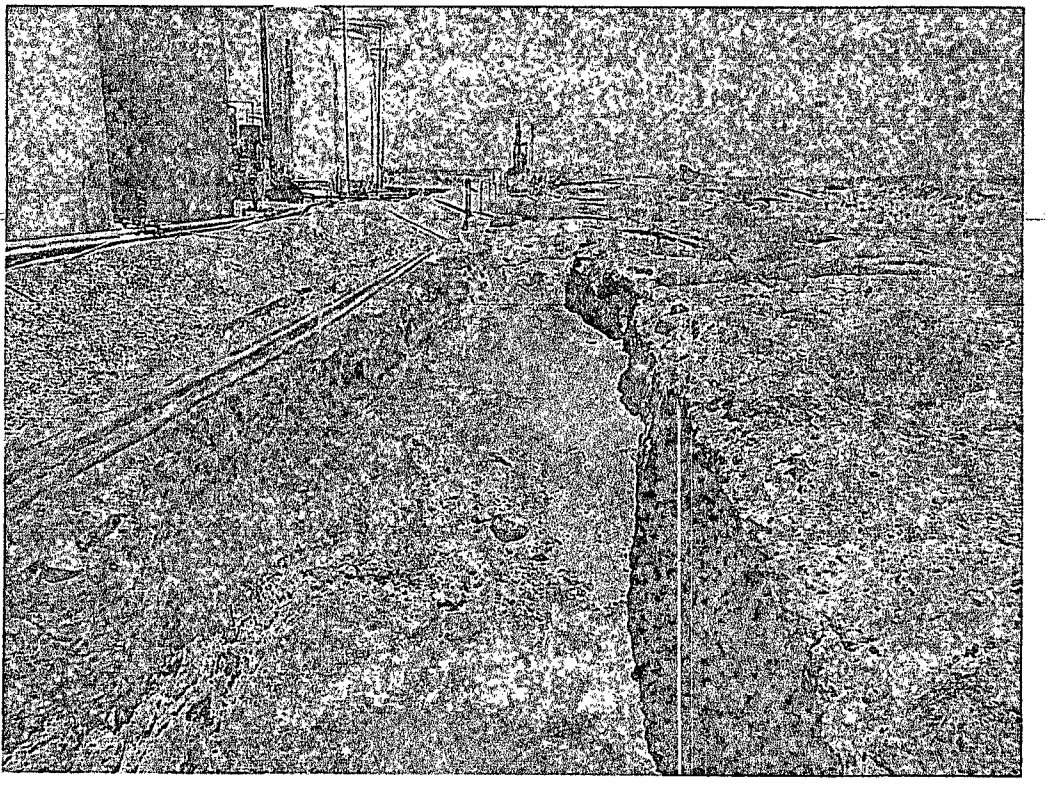
PHOTOGRAPHS

COG Operating LLC
Electra Federal #9
Eddy County, New Mexico

TETRA TECH



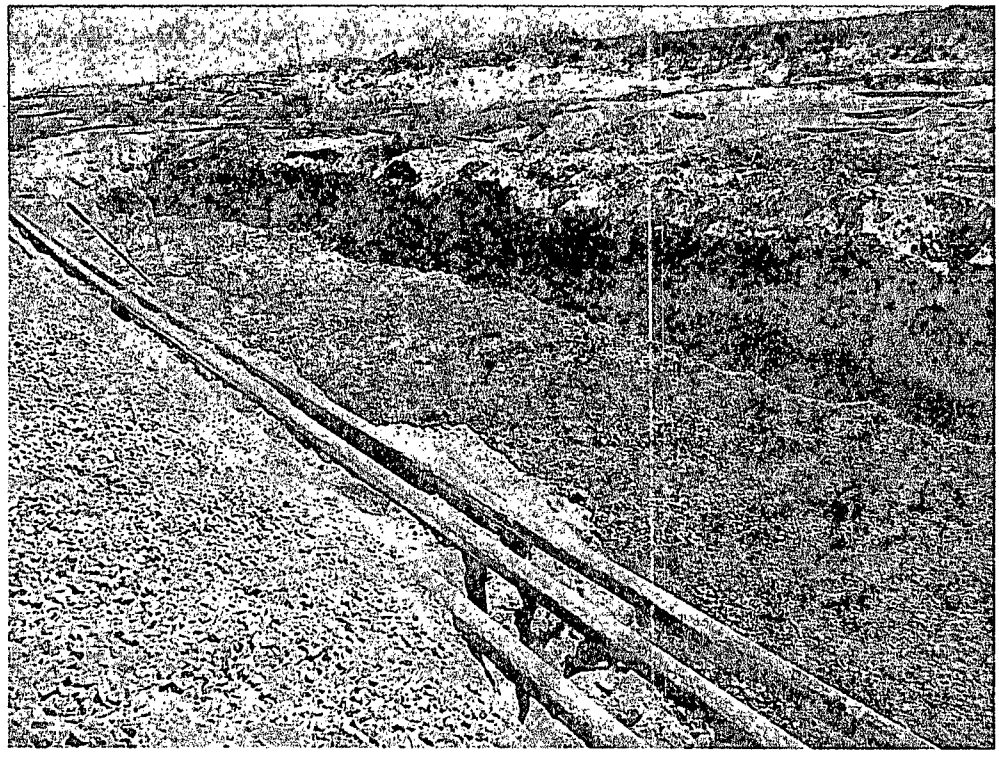
View North – Excavation of AH-2 and AH-3.



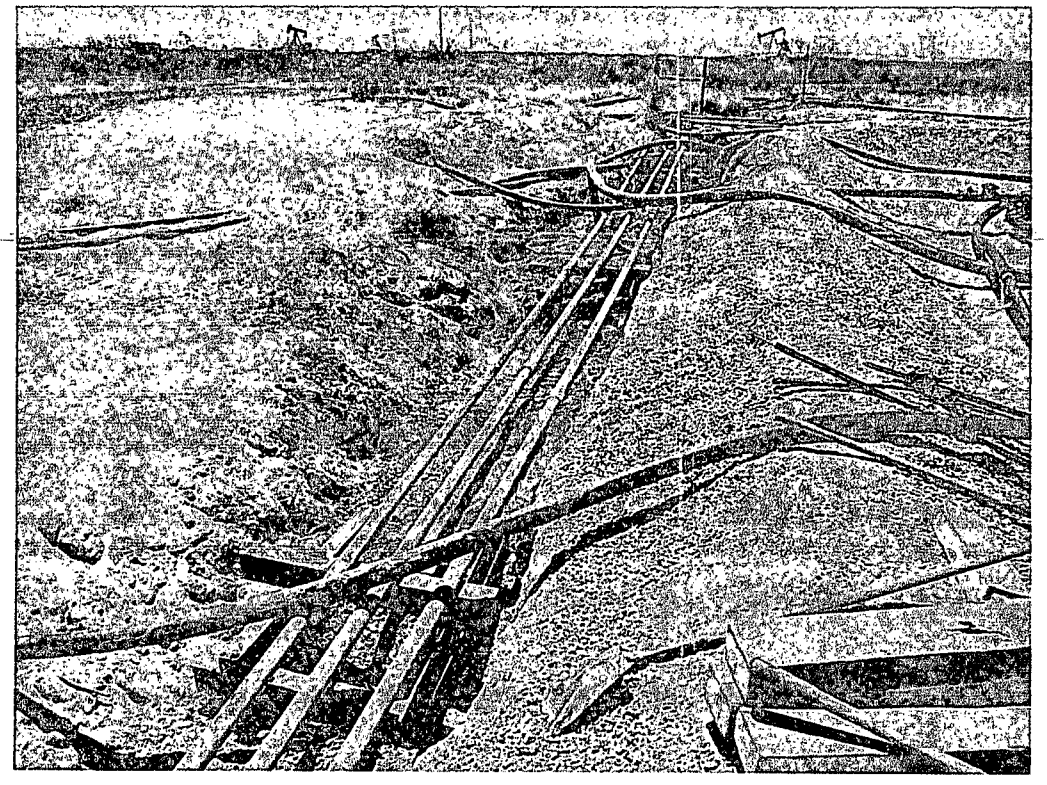
View North – Excavation of AH-4 and AH-5.

COG Operating LLC
Electra Federal #9
Eddy County, New Mexico

TETRA TECH



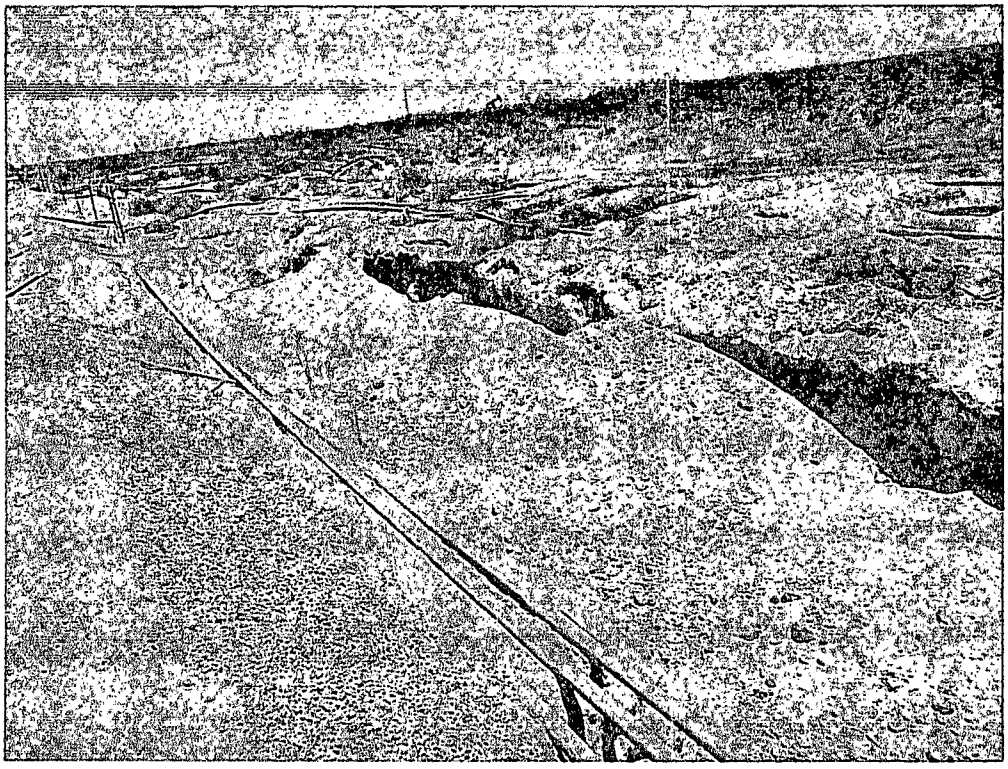
View Northeast – Clay added to AH-4 and AH-5 excavations.



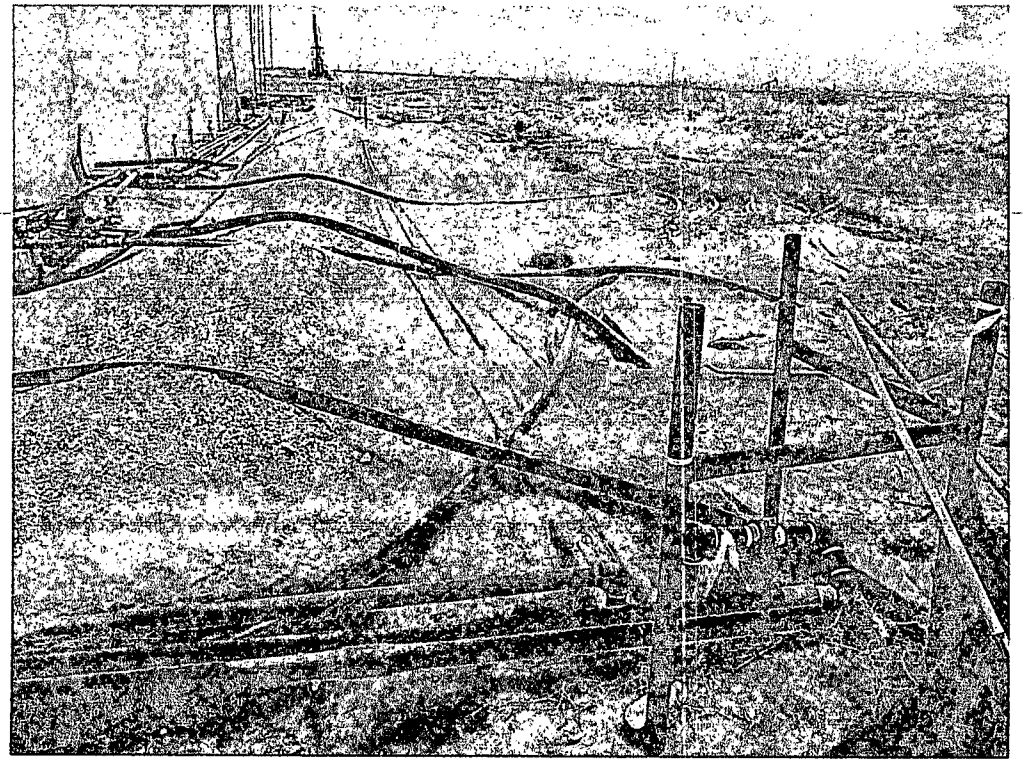
View South – Clay added to AH-2 and AH-3 excavations.

COG Operating LLC
Electra Federal #9
Eddy County, New Mexico

TETRA TECH



View Northeast - Backfill



View North – Backfill

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 #9	Facility Type	Flowline

Surface Owner	Mineral Owner	Lease No. (API#)
Federal		30-015-34721

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	15	17S	30E					Eddy

Latitude 32 50.370 **Longitude** 103 57.911

NATURE OF RELEASE

Type of Release Oil and Produced water	Volume of Release 7bbls oil 15bbls produced water	Volume Recovered 6bbls oil 14bbls produced water
Source of Release Flowline	Date and Hour of Occurrence 03/22/2012	Date and Hour of Discovery 03/22/2012 8:50 a.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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.*

A hole developed in a 2 7/8 steel flowline directly behind our Electra Federal North Tank Battery. The faulty section on flowline has been replaced with new steel line.

Describe Area Affected and Cleanup Action Taken.*

Initially 22bbls were released from the ruptured line and we were quickly able to recover 20bbls of fluid with a vacuum truck. The release area measures 10' x 60' outside of the Electra Federal North Tank Battery. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM for approval prior to any significant remediation work.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Josh Russo	Approved by District Supervisor:	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached ☐
Date: 04/02/2012 Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

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

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NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	**COG Operating LLC**	Contact	**Pat Ellis**
Address	**550 W. Texas, Suite 100 Midland, Texas 79701**	Telephone No.	**(432) 230-0077**
Facility Name	**Electra Federal #9**	Facility Type	**Flow line**

Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-015-34721

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	15	17S	30E					Eddy

Latitude N 32.81208° **Longitude** W 104.00906°

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release 7 bbls oil 15 bbls produced water	Volume Recovered 6 bbls oil 14 bbls produced water
Source of Release: Steel Flow line	Date and Hour of Occurrence 03/22/2012	Date and Hour of Discovery 03/22/2012 8:50 a.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour 02/03/2012 2:33 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.*

A hole developed in a 2 7/8 steel flow line directly behind the Electra Federal North Tank Battery. The faulty section of flow line has been replaced with a new steel line.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personnel inspected the site and collected samples to define the spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it 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: 10-17-12 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Electra Federal #9
Eddy County, New Mexico

16 South 29 East

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

16 South 30 East

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

16 South 31 East

6	5	4	3	2	1
7	8	9	10	11	12 288
18	17	16	15	14	13 113
19	20	21	22	23	24
30	29	28	27	26	25
31 290	32	33	34	35	36

17 South 29 East

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

17 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15 SITE	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	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	34 271	35	36

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	1
7	8	9	10	11	12 400
18	17	16	15	14 317	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35 261	36

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

APPENDIX C

Summary Report

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

Report Date: May 4, 2012

Work Order: 12042408

Project Location: Eddy Co., NM
Project Name: COG/Electra Federal #9
Project Number: 114-6401365

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
295035	AH-1 0-1'	soil	2012-04-19	00:00	2012-04-23
295036	AH-1 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295037	AH-1 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295038	AH-1 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295039	AH-2 0-1'	soil	2012-04-19	00:00	2012-04-23
295040	AH-2 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295041	AH-2 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295042	AH-2 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295043	AH-3 0-1'	soil	2012-04-19	00:00	2012-04-23
295044	AH-3 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295045	AH-3 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295046	AH-3 2.5-3'	soil	2012-04-19	00:00	2012-04-23
295047	AH-4 0-1'	soil	2012-04-19	00:00	2012-04-23
295048	AH-4 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295049	AH-4 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295050	AH-4 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295051	AH-4 4-4.5'	soil	2012-04-19	00:00	2012-04-23
295052	AH-4 5-5.5'	soil	2012-04-19	00:00	2012-04-23
295053	AH-4 6-6.5'	soil	2012-04-19	00:00	2012-04-23
295054	AH-4 7-7.5'	soil	2012-04-19	00:00	2012-04-23
295055	AH-4 8-8.5'	soil	2012-04-19	00:00	2012-04-23
295056	AH-4 9-9.5'	soil	2012-04-19	00:00	2012-04-23
295057	AH-5 0-1'	soil	2012-04-19	00:00	2012-04-23
295058	AH-5 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295059	AH-5 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295060	AH-5 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295061	AH-5 4-4.5'	soil	2012-04-19	00:00	2012-04-23
295062	AH-5 5-5.5'	soil	2012-04-19	00:00	2012-04-23
295063	AH-5 6-6.5'	soil	2012-04-19	00:00	2012-04-23

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
295035 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0 Qs	**8.09** Qr,Qs
295039 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	**2210** Qs	**179** Qr,Qs
295043 - AH-3 0-1'	**6.97**	**46.3**	**51.4**	**84.9**	**3610** Qs	**5080** Qr,Qs
295044 - AH-3 1-1.5'	**19.8**	**119**	**83.0**	**118**	**3500**	**3330** Qr,Qs
295045 - AH-3 2-2.5'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
295046 - AH-3 2.5-3'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
295047 - AH-4 0-1'	**1.74**	**17.9**	**23.2**	**35.7**	**3940** Qs	**1490** Qr,Qs
295048 - AH-4 1-1.5'	**0.282**	**0.848**	**0.506**	**1.71**	**399**	**206** Qr,Qs
295057 - AH-5 0-1'	**2.36**	**8.49**	**18.7**	**43.7**	**3550** Qs	**3880** Qr,Qs
295058 - AH-5 1-1.5'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00 Qr
295059 - AH-5 2-2.5'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00 Qr
295060 - AH-5 3-3.5'	**10.7**	**64.9**	**56.6**	**88.6**	**3600**	**4210** Qr
295061 - AH-5 4-4.5'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
295062 - AH-5 5-5.5'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

Sample: 295035 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**1190**	mg/Kg	4

Sample: 295036 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1320**	mg/Kg	4

Sample: 295037 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**805**	mg/Kg	4

Sample: 295038 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**2330**	mg/Kg	4

Sample: 295039 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**530**	mg/Kg	4

Sample: 295040 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**211**	mg/Kg	4

Sample: 295041 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**1440**	mg/Kg	4

Sample: 295042 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**427**	mg/Kg	4

Sample: 295043 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**11700**	mg/Kg	4

Sample: 295044 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**5600**	mg/Kg	4

Sample: 295045 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**10100**	mg/Kg	4

Sample: 295046 - AH-3 2.5-3'

Param	Flag	Result	Units	RL
Chloride		**16800**	mg/Kg	4

Sample: 295047 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**2540**	mg/Kg	4

Sample: 295048 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1360**	mg/Kg	4

Sample: 295049 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**4950**	mg/Kg	4

Sample: 295050 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**7360**	mg/Kg	4

Sample: 295051 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**8540**	mg/Kg	4

Sample: 295052 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**12200**	mg/Kg	4

Sample: 295053 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**4700**	mg/Kg	4

Sample: 295054 - AH-4 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**4280**	mg/Kg	4

Sample: 295055 - AH-4 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**1410**	mg/Kg	4

Sample: 295056 - AH-4 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**356**	mg/Kg	4

Sample: 295057 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**73.1**	mg/Kg	4

Sample: 295058 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**53.6**	mg/Kg	4

Sample: 295059 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**770**	mg/Kg	4

Sample: 295060 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**14800**	mg/Kg	4

Sample: 295061 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1160**	mg/Kg	4

Sample: 295062 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**39.0**	mg/Kg	4

Sample: 295063 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**29.2**	mg/Kg	4

TRACEANALYSIS, INC.

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

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report
(Corrected Report)

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

Report Date: May 4, 2012

Work Order: 12042408

Project Location: Eddy Co., NM
Project Name: COG/Electra Federal #9
Project Number: 114-6401365

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
295035	AH-1 0-1'	soil	2012-04-19	00:00	2012-04-23
295036	AH-1 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295037	AH-1 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295038	AH-1 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295039	AH-2 0-1'	soil	2012-04-19	00:00	2012-04-23
295040	AH-2 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295041	AH-2 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295042	AH-2 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295043	AH-3 0-1'	soil	2012-04-19	00:00	2012-04-23
295044	AH-3 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295045	AH-3 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295046	AH-3 2.5-3'	soil	2012-04-19	00:00	2012-04-23
295047	AH-4 0-1'	soil	2012-04-19	00:00	2012-04-23
295048	AH-4 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295049	AH-4 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295050	AH-4 3-3.5'	soil	2012-04-19	00:00	2012-04-23

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
295051	AH-4 4-4.5'	soil	2012-04-19	00:00	2012-04-23
295052	AH-4 5-5.5'	soil	2012-04-19	00:00	2012-04-23
295053	AH-4 6-6.5'	soil	2012-04-19	00:00	2012-04-23
295054	AH-4 7-7.5'	soil	2012-04-19	00:00	2012-04-23
295055	AH-4 8-8.5'	soil	2012-04-19	00:00	2012-04-23
295056	AH-4 9-9.5'	soil	2012-04-19	00:00	2012-04-23
295057	AH-5 0-1'	soil	2012-04-19	00:00	2012-04-23
295058	AH-5 1-1.5'	soil	2012-04-19	00:00	2012-04-23
295059	AH-5 2-2.5'	soil	2012-04-19	00:00	2012-04-23
295060	AH-5 3-3.5'	soil	2012-04-19	00:00	2012-04-23
295061	AH-5 4-4.5'	soil	2012-04-19	00:00	2012-04-23
295062	AH-5 5-5.5'	soil	2012-04-19	00:00	2012-04-23
295063	AH-5 6-6.5'	soil	2012-04-19	00:00	2012-04-23

Report Corrections (Work Order 12042408)

- 5/2/12: Added TPH and BTEX to samples 295044, 295048, and 295058-62.

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 70 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

Report Contents

Case Narrative

Samples for project COG/Electra Federal #9 were received by TraceAnalysis, Inc. on 2012-04-23 and assigned to work order 12042408. Samples for work order 12042408 were received intact at a temperature of 3.9 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	76879	2012-04-25 at 10:55	90611	2012-04-25 at 11:11
BTEX	S 8021B	76942	2012-04-27 at 09:13	90687	2012-04-27 at 09:28
BTEX	S 8021B	77014	2012-05-01 at 10:45	90779	2012-05-01 at 11:43
BTEX	S 8021B	77059	2012-05-02 at 14:00	90827	2012-05-03 at 02:56
BTEX	S 8021B	77104	2012-05-03 at 15:00	90879	2012-05-03 at 16:21
Chloride (Titration)	SM 4500-Cl B	76994	2012-04-30 at 09:37	90761	2012-05-01 at 14:39
Chloride (Titration)	SM 4500-Cl B	76994	2012-04-30 at 09:37	90762	2012-05-01 at 14:39
Chloride (Titration)	SM 4500-Cl B	76994	2012-04-30 at 09:37	90763	2012-05-01 at 14:40
TPH DRO - NEW	S 8015 D	76815	2012-04-24 at 13:11	90553	2012-04-24 at 14:58
TPH DRO - NEW	S 8015 D	76960	2012-04-30 at 14:38	90712	2012-04-30 at 14:40
TPH DRO - NEW	S 8015 D	76989	2012-05-01 at 13:09	90755	2012-05-01 at 13:10
TPH DRO - NEW	S 8015 D	77036	2012-05-02 at 14:33	90806	2012-05-02 at 14:38
TPH DRO - NEW	S 8015 D	77085	2012-05-03 at 13:35	90849	2012-05-03 at 13:37
TPH DRO - NEW	S 8015 D	77100	2012-05-03 at 15:38	90872	2012-05-03 at 15:39
TPH GRO	S 8015 D	76879	2012-04-25 at 10:55	90612	2012-04-25 at 11:39
TPH GRO	S 8015 D	76942	2012-04-27 at 09:13	90689	2012-04-30 at 09:56
TPH GRO	S 8015 D	77014	2012-05-01 at 10:45	90780	2012-05-01 at 12:10
TPH GRO	S 8015 D	77059	2012-05-02 at 14:00	90828	2012-05-03 at 03:22
TPH GRO	S 8015 D	77104	2012-05-03 at 15:00	90881	2012-05-03 at 16:49

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 12042408 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 295035 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90611	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	75 - 135.4
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	63.6 - 158.9

Sample: 295035 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1190**	mg/Kg	10	4.00

Sample: 295035 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90553	Date Analyzed:	2012-04-24	Analyzed By:	DA
Prep Batch:	76815	Sample Preparation:	2012-04-24	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	<50.0	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	49.3 - 157.5

Sample: 295035 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90612	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	Qr,Qs	1	**8.09**	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	45.1 - 162.2

Sample: 295036 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1320**	mg/Kg	10	4.00

Sample: 295037 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

continued ...

sample 295037 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**805**	mg/Kg	10	4.00

Sample: 295038 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2330**	mg/Kg	10	4.00

Sample: 295039 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90611	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	75 - 135.4
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	63.6 - 158.9

Sample: 295039 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**530**	mg/Kg	5	4.00

Sample: 295039 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90553	Date Analyzed:	2012-04-24	Analyzed By:	DA
Prep Batch:	76815	Sample Preparation:	2012-04-24	Prepared By:	DA

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**2210**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		386	mg/Kg	5	100	386	49.3 - 157.5

Sample: 295039 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90612	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	Qr,Qs	1	**179**	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.10	mg/Kg	1	2.00	105	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	45.1 - 162.2

Sample: 295040 - AH-2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**211**	mg/Kg	5	4.00

Sample: 295041 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1440**	mg/Kg	10	4.00

Sample: 295042 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

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

Sample: 295043 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90611	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**6.97**	mg/Kg	100	0.0200
Toluene		1	**46.3**	mg/Kg	100	0.0200
Ethylbenzene		1	**51.4**	mg/Kg	100	0.0200
Xylene		1	**84.9**	mg/Kg	100	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			94.3	mg/Kg	100	100	94	75 - 135.4
4-Bromofluorobenzene (4-BFB)			101	mg/Kg	100	100	101	63.6 - 158.9

Sample: 295043 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**11700**	mg/Kg	10	4.00

Sample: 295043 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90553	Date Analyzed:	2012-04-24	Analyzed By:	DA
Prep Batch:	76815	Sample Preparation:	2012-04-24	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**3610**	mg/Kg	5	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		493	mg/Kg	5	100	493	49.3 - 157.5

Sample: 295043 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90612	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr,Qs	1	**5080**	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			94.3	mg/Kg	100	100	94	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			111	mg/Kg	100	100	111	45.1 - 162.2

Sample: 295044 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90687	Date Analyzed:	2012-04-27	Analyzed By:	tc
Prep Batch:	76942	Sample Preparation:	2012-04-27	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**19.8**	mg/Kg	100	0.0200
Toluene		1	**119**	mg/Kg	100	0.0200
Ethylbenzene		1	**83.0**	mg/Kg	100	0.0200
Xylene		1	**118**	mg/Kg	100	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			93.1	mg/Kg	100	100	93	75 - 135.4
4-Bromofluorobenzene (4-BFB)			105	mg/Kg	100	100	105	63.6 - 158.9

Sample: 295044 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90761	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5600**	mg/Kg	10	4.00

Sample: 295044 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90712	Date Analyzed:	2012-04-30	Analyzed By:	DA
Prep Batch:	76960	Sample Preparation:	2012-04-30	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**3500**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		378	mg/Kg	5	100	378	49.3 - 157.5

Sample: 295044 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90689	Date Analyzed:	2012-04-30	Analyzed By:	tc
Prep Batch:	76942	Sample Preparation:	2012-04-27	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr,Qs	1	**3330**	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			97.1	mg/Kg	100	100	97	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			112	mg/Kg	100	100	112	45.1 - 162.2

Sample: 295045 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90779	Date Analyzed:	2012-05-01	Analyzed By:	tc
Prep Batch:	77014	Sample Preparation:	2012-05-01	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.79	mg/Kg	1	2.00	90	75 - 135.4
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	63.6 - 158.9

Sample: 295045 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**10100**	mg/Kg	100	4.00

Sample: 295045 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90755	Date Analyzed:	2012-05-01	Analyzed By:	DA
Prep Batch:	76989	Sample Preparation:	2012-05-01	Prepared By:	DA

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	49.3 - 157.5

Sample: 295045 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90780	Date Analyzed:	2012-05-01	Analyzed By:	tc
Prep Batch:	77014	Sample Preparation:	2012-05-01	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			1.69	mg/Kg	1	2.00	84	45.1 - 162.2

Sample: 295046 - AH-3 2.5-3'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90779	Date Analyzed:	2012-05-01	Analyzed By:	tc
Prep Batch:	77014	Sample Preparation:	2012-05-01	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.29	mg/Kg	1	2.00	114	75 - 135.4
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	63.6 - 158.9

Sample: 295046 - AH-3 2.5-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**16800**	mg/Kg	100	4.00

Sample: 295046 - AH-3 2.5-3'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90755	Date Analyzed:	2012-05-01	Analyzed By:	DA
Prep Batch:	76989	Sample Preparation:	2012-05-01	Prepared By:	DA

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	49.3 - 157.5

Sample: 295046 - AH-3 2.5-3'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90780	Date Analyzed:	2012-05-01	Analyzed By:	tc
Prep Batch:	77014	Sample Preparation:	2012-05-01	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.40	mg/Kg	1	2.00	120	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	45.1 - 162.2

Sample: 295047 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90611	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**1.74**	mg/Kg	10	0.0200
Toluene		1	**17.9**	mg/Kg	10	0.0200
Ethylbenzene		1	**23.2**	mg/Kg	10	0.0200
Xylene		1	**35.7**	mg/Kg	10	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.09	mg/Kg	10	10.0	91	75 - 135.4
4-Bromofluorobenzene (4-BFB)			13.5	mg/Kg	10	10.0	135	63.6 - 158.9

Sample: 295047 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**2540**	mg/Kg	100	4.00

Sample: 295047 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90553	Date Analyzed:	2012-04-24	Analyzed By:	DA
Prep Batch:	76815	Sample Preparation:	2012-04-24	Prepared By:	DA

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**3940**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		437	mg/Kg	5	100	437	49.3 - 157.5

Sample: 295047 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90689	Date Analyzed:	2012-04-30	Analyzed By:	tc
Prep Batch:	76942	Sample Preparation:	2012-04-27	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	Qr,Qs	1	**1490**	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			89.2	mg/Kg	100	100	89	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			109	mg/Kg	100	100	109	45.1 - 162.2

Sample: 295048 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90687	Date Analyzed:	2012-04-27	Analyzed By:	tc
Prep Batch:	76942	Sample Preparation:	2012-04-27	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.282**	mg/Kg	5	0.0200
Toluene		1	**0.848**	mg/Kg	5	0.0200
Ethylbenzene		1	**0.506**	mg/Kg	5	0.0200
Xylene		1	**1.71**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.65	mg/Kg	5	5.00	93	75 - 135.4
4-Bromofluorobenzene (4-BFB)			5.01	mg/Kg	5	5.00	100	63.6 - 158.9

Sample: 295048 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1360**	mg/Kg	100	4.00

Sample: 295048 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90712	Date Analyzed:	2012-04-30	Analyzed By:	DA
Prep Batch:	76960	Sample Preparation:	2012-04-30	Prepared By:	DA

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		1	**399**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	162	mg/Kg	1	100	162	49.3 - 157.5

Sample: 295048 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90689	Date Analyzed:	2012-04-30	Analyzed By:	tc
Prep Batch:	76942	Sample Preparation:	2012-04-27	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	Qr,Qs	1	**206**	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.80	mg/Kg	5	5.00	96	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			5.25	mg/Kg	5	5.00	105	45.1 - 162.2

Sample: 295049 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4950**	mg/Kg	100	4.00

Sample: 295050 - AH-4 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**7360**	mg/Kg	100	4.00

Sample: 295051 - AH-4 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**8540**	mg/Kg	100	4.00

Sample: 295052 - AH-4 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**12200**	mg/Kg	100	4.00

Sample: 295053 - AH-4 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4700**	mg/Kg	100	4.00

Sample: 295054 - AH-4 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90762	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4280**	mg/Kg	100	4.00

Sample: 295055 - AH-4 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1410**	mg/Kg	10	4.00

Sample: 295056 - AH-4 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**356**	mg/Kg	5	4.00

Sample: 295057 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90611	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**2.36**	mg/Kg	50	0.0200
Toluene		1	**8.49**	mg/Kg	50	0.0200
Ethylbenzene		1	**18.7**	mg/Kg	50	0.0200

continued ...

sample 295057 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene		1	**43.7**	mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			45.8	mg/Kg	50	50.0	92	75 - 135.4
4-Bromofluorobenzene (4-BFB)			52.6	mg/Kg	50	50.0	105	63.6 - 158.9

Sample: 295057 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**73.1**	mg/Kg	5	4.00

Sample: 295057 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90553	Date Analyzed:	2012-04-24	Analyzed By:	DA
Prep Batch:	76815	Sample Preparation:	2012-04-24	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**3550**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			404	mg/Kg	5	100	404	49.3 - 157.5

Sample: 295057 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90612	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	Sample Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr,Qs	1	**3880**	mg/Kg	50	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			48.4	mg/Kg	50	50.0	97	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			57.9	mg/Kg	50	50.0	116	45.1 - 162.2

Sample: 295058 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90827	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77059	Sample Preparation:	2012-05-02	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.34	mg/Kg	1	2.00	117	75 - 135.4
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	63.6 - 158.9

Sample: 295058 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**53.6**	mg/Kg	5	4.00

Sample: 295058 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90806	Date Analyzed:	2012-05-02	Analyzed By:	DA
Prep Batch:	77036	Sample Preparation:	2012-05-02	Prepared By:	DA

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			142	mg/Kg	1	100	142	49.3 - 157.5

Sample: 295058 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90828	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77059	Sample Preparation:	2012-05-02	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr,U	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.49	mg/Kg	1	2.00	124	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.13	mg/Kg	1	2.00	106	45.1 - 162.2

Sample: 295059 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90827	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77059	Sample Preparation:	2012-05-02	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	75 - 135.4
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	63.6 - 158.9

Sample: 295059 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

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

Sample: 295059 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90849	Date Analyzed:	2012-05-03	Analyzed By:	DA
Prep Batch:	77085	Sample Preparation:	2012-05-03	Prepared By:	DA

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			110	mg/Kg	1	100	110	49.3 - 157.5

Sample: 295059 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90828	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77059	Sample Preparation:	2012-05-02	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	Qr,U	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.26	mg/Kg	1	2.00	113	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	45.1 - 162.2

Sample: 295060 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90827	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77059	Sample Preparation:	2012-05-02	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**10.7**	mg/Kg	50	0.0200
Toluene		1	**64.9**	mg/Kg	50	0.0200
Ethylbenzene		1	**56.6**	mg/Kg	50	0.0200
Xylene		1	**88.6**	mg/Kg	50	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	26.5	mg/Kg	50	50.0	53	75 - 135.4
4-Bromofluorobenzene (4-BFB)			33.6	mg/Kg	50	50.0	67	63.6 - 158.9

Sample: 295060 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**14800**	mg/Kg	10	4.00

Sample: 295060 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90849	Date Analyzed:	2012-05-03	Analyzed By:	DA
Prep Batch:	77085	Sample Preparation:	2012-05-03	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**3600**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			298	mg/Kg	5	100	298	49.3 - 157.5

Sample: 295060 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90828	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77059	Sample Preparation:	2012-05-02	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	1	**4210**	mg/Kg	50	2.00

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr		28.1	mg/Kg	50	50.0	56	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)				37.4	mg/Kg	50	50.0	75	45.1 - 162.2

Sample: 295061 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90879	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77104	Sample Preparation:	2012-05-03	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1	2.00	100	75 - 135.4
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	63.6 - 158.9

Sample: 295061 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1160**	mg/Kg	5	4.00

Sample: 295061 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90872	Date Analyzed:	2012-05-03	Analyzed By:	DA
Prep Batch:	77100	Sample Preparation:	2012-05-03	Prepared By:	DA

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			115	mg/Kg	1	100	115	49.3 - 157.5

Sample: 295061 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90881	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77104	Sample Preparation:	2012-05-03	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.14	mg/Kg	1	2.00	107	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	45.1 - 162.2

Sample: 295062 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90879	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77104	Sample Preparation:	2012-05-03	Prepared By:	tc

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.24	mg/Kg	1	2.00	112	75 - 135.4
4-Bromofluorobenzene (4-BFB)			2.20	mg/Kg	1	2.00	110	63.6 - 158.9

Sample: 295062 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**39.0**	mg/Kg	5	4.00

Sample: 295062 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90872	Date Analyzed:	2012-05-03	Analyzed By:	DA
Prep Batch:	77100	Sample Preparation:	2012-05-03	Prepared By:	DA

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			112	mg/Kg	1	100	112	49.3 - 157.5

Sample: 295062 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90881	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77104	Sample Preparation:	2012-05-03	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
GRO	U	1		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.37	mg/Kg	1	2.00	118	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.13	mg/Kg	1	2.00	106	45.1 - 162.2

Sample: 295063 - AH-5 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90763	Date Analyzed:	2012-05-01	Analyzed By:	AR
Prep Batch:	76994	Sample Preparation:	2012-04-30	Prepared By:	AR

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

Method Blanks

Method Blank (1) QC Batch: 90553

QC Batch:	90553	Date Analyzed:	2012-04-24	Analyzed By:	DA
Prep Batch:	76815	QC Preparation:	2012-04-24	Prepared By:	DA

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			118	mg/Kg	1	100	118	52 - 140.8

Method Blank (1) QC Batch: 90611

QC Batch:	90611	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	QC Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.61	mg/Kg	1	2.00	80	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.58	mg/Kg	1	2.00	79	55.9 - 112.4

Method Blank (1) QC Batch: 90612

QC Batch:	90612	Date Analyzed:	2012-04-25	Analyzed By:	tc
Prep Batch:	76879	QC Preparation:	2012-04-25	Prepared By:	tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<1.22	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	78.6 - 121
4-Bromofluorobenzene (4-BFB)			1.52	mg/Kg	1	2.00	76	55 - 120

Method Blank (1) QC Batch: 90687

QC Batch: 90687 Date Analyzed: 2012-04-27 Analyzed By: tc
Prep Batch: 76942 QC Preparation: 2012-04-27 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.81	mg/Kg	1	2.00	90	55.9 - 112.4

Method Blank (1) QC Batch: 90689

QC Batch: 90689 Date Analyzed: 2012-04-30 Analyzed By: tc
Prep Batch: 76942 QC Preparation: 2012-04-27 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<1.22	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	78.6 - 121
4-Bromofluorobenzene (4-BFB)			1.77	mg/Kg	1	2.00	88	55 - 120

Method Blank (1) QC Batch: 90712

QC Batch: 90712 | Date Analyzed: 2012-04-30 | Analyzed By: DA
Prep Batch: 76960 | QC Preparation: 2012-04-30 | Prepared By: DA

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			109	mg/Kg	1	100	109	52 - 140.8

Method Blank (1) QC Batch: 90755

QC Batch: 90755 | Date Analyzed: 2012-05-01 | Analyzed By: DA
Prep Batch: 76989 | QC Preparation: 2012-05-01 | Prepared By: DA

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			115	mg/Kg	1	100	115	52 - 140.8

Method Blank (1) QC Batch: 90761

QC Batch: 90761 | Date Analyzed: 2012-05-01 | Analyzed By: AR
Prep Batch: 76994 | QC Preparation: 2012-04-30 | Prepared By: AR

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

Method Blank (1) QC Batch: 90762

QC Batch: 90762 | Date Analyzed: 2012-05-01 | Analyzed By: AR
Prep Batch: 76994 | QC Preparation: 2012-04-30 | Prepared By: AR

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

Method Blank (1) QC Batch: 90763

QC Batch: 90763 Date Analyzed: 2012-05-01 Analyzed By: AR
Prep Batch: 76994 QC Preparation: 2012-04-30 Prepared By: AR

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

Method Blank (1) QC Batch: 90779

QC Batch: 90779 Date Analyzed: 2012-05-01 Analyzed By: tc
Prep Batch: 77014 QC Preparation: 2012-05-01 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.63	mg/Kg	1	2.00	82	55.9 - 112.4

Method Blank (1) QC Batch: 90780

QC Batch: 90780 Date Analyzed: 2012-05-01 Analyzed By: tc
Prep Batch: 77014 QC Preparation: 2012-05-01 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<1.22	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.75	mg/Kg	1	2.00	88	78.6 - 121
4-Bromofluorobenzene (4-BFB)			1.57	mg/Kg	1	2.00	78	55 - 120

Method Blank (1) QC Batch: 90806

QC Batch: 90806 Date Analyzed: 2012-05-02 Analyzed By: DA
Prep Batch: 77036 QC Preparation: 2012-05-02 Prepared By: DA

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			87.0	mg/Kg	1	100	87	52 - 140.8

Method Blank (1) QC Batch: 90827

QC Batch: 90827 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77059 QC Preparation: 2012-05-02 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	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	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.89	mg/Kg	1	2.00	94	55.9 - 112.4

Method Blank (1) QC Batch: 90828

QC Batch: 90828 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77059 QC Preparation: 2012-05-02 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<1.22	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.08	mg/Kg	1	2.00	104	78.6 - 121
4-Bromofluorobenzene (4-BFB)			1.86	mg/Kg	1	2.00	93	55 - 120

Method Blank (1) QC Batch: 90849

QC Batch: 90849 Date Analyzed: 2012-05-03 Analyzed By: DA
Prep Batch: 77085 QC Preparation: 2012-05-03 Prepared By: DA

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			94.3	mg/Kg	1	100	94	52 - 140.8

Method Blank (1) QC Batch: 90872

QC Batch: 90872 Date Analyzed: 2012-05-03 Analyzed By: DA
Prep Batch: 77100 QC Preparation: 2012-05-03 Prepared By: DA

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			107	mg/Kg	1	100	107	52 - 140.8

Method Blank (1) QC Batch: 90879

QC Batch: 90879 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77104 QC Preparation: 2012-05-03 Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.22	mg/Kg	1	2.00	111	78 - 123.6
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	1	2.00	108	55.9 - 112.4

Method Blank (1) QC Batch: 90881

QC Batch:	90881	Date Analyzed:	2012-05-03	Analyzed By:	tc
Prep Batch:	77104	QC Preparation:	2012-05-03	Prepared By:	AG

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<1.22	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.35	mg/Kg	1	2.00	118	78.6 - 121
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	55 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 90553 | Date Analyzed: 2012-04-24 | Analyzed By: DA
Prep Batch: 76815 | QC Preparation: 2012-04-24 | Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	242	mg/Kg	1	250	<14.5	97	62 - 128.3

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	262	mg/Kg	1	250	<14.5	105	62 - 128.3	8	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	117	125	mg/Kg	1	100	117	125	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90611 | Date Analyzed: 2012-04-25 | Analyzed By: tc
Prep Batch: 76879 | QC Preparation: 2012-04-25 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.06	mg/Kg	1	2.00	<0.00470	103	86.5 - 124.9
Toluene		1	2.04	mg/Kg	1	2.00	<0.00980	102	84.7 - 122.5
Ethylbenzene		1	1.99	mg/Kg	1	2.00	<0.00500	100	79.4 - 118.9
Xylene		1	5.95	mg/Kg	1	6.00	<0.0170	99	79.5 - 118.9

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
Benzene		1	2.14	mg/Kg	1	2.00	<0.00470	107	86.5 - 124.9	4	20
Toluene		1	2.10	mg/Kg	1	2.00	<0.00980	105	84.7 - 122.5	3	20
Ethylbenzene		1	2.03	mg/Kg	1	2.00	<0.00500	102	79.4 - 118.9	2	20
Xylene		1	6.06	mg/Kg	1	6.00	<0.0170	101	79.5 - 118.9	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
Trifluorotoluene (TFT)	1.61	1.88	mg/Kg	1	2.00	80	94	73.9 - 127
4-Bromofluorobenzene (4-BFB)	1.65	1.89	mg/Kg	1	2.00	82	94	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90612 Date Analyzed: 2012-04-25 Analyzed By: tc
Prep Batch: 76879 QC Preparation: 2012-04-25 Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.1	mg/Kg	1	20.0	<1.22	86	68.3 - 105.7

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	17.3	mg/Kg	1	20.0	<1.22	86	68.3 - 105.7	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.91	1.97	mg/Kg	1	2.00	96	98	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.78	1.83	mg/Kg	1	2.00	89	92	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 90687 Date Analyzed: 2012-04-27 Analyzed By: tc
Prep Batch: 76942 QC Preparation: 2012-04-27 Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.09	mg/Kg	1	2.00	<0.00470	104	86.5 - 124.9
Toluene		1	2.04	mg/Kg	1	2.00	<0.00980	102	84.7 - 122.5
Ethylbenzene		1	2.00	mg/Kg	1	2.00	<0.00500	100	79.4 - 118.9
Xylene		1	5.94	mg/Kg	1	6.00	<0.0170	99	79.5 - 118.9

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
Benzene		1	2.11	mg/Kg	1	2.00	<0.00470	106	86.5 - 124.9	1	20

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene		1	2.06	mg/Kg	1	2.00	<0.00980	103	84.7 - 122.5	1	20
Ethylbenzene		1	2.02	mg/Kg	1	2.00	<0.00500	101	79.4 - 118.9	1	20
Xylene		1	6.02	mg/Kg	1	6.00	<0.0170	100	79.5 - 118.9	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.74	1.76	mg/Kg	1	2.00	87	88	73.9 - 127
4-Bromofluorobenzene (4-BFB)	1.74	1.81	mg/Kg	1	2.00	87	90	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90689 Date Analyzed: 2012-04-30 Analyzed By: tc
Prep Batch: 76942 QC Preparation: 2012-04-27 Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.4	mg/Kg	1	20.0	<1.22	87	68.3 - 105.7

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	15.2	mg/Kg	1	20.0	<1.22	76	68.3 - 105.7	14	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)	1.80	1.75	mg/Kg	1	2.00	90	88	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.69	1.64	mg/Kg	1	2.00	84	82	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 90712 Date Analyzed: 2012-04-30 Analyzed By: DA
Prep Batch: 76960 QC Preparation: 2012-04-30 Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	278	mg/Kg	1	250	<14.5	111	62 - 128.3

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	280	mg/Kg	1	250	<14.5	112	62 - 128.3	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	122	118	mg/Kg	1	100	122	118	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90755 Date Analyzed: 2012-05-01 Analyzed By: DA
Prep Batch: 76989 QC Preparation: 2012-05-01 Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	281	mg/Kg	1	250	<14.5	112	62 - 128.3

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	289	mg/Kg	1	250	<14.5	116	62 - 128.3	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	121	124	mg/Kg	1	100	121	124	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90761 Date Analyzed: 2012-05-01 Analyzed By: AR
Prep Batch: 76994 QC Preparation: 2012-04-30 Prepared By: AR

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	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2420	mg/Kg	1	2500	<3.85	97	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 90762 Date Analyzed: 2012-05-01 Analyzed By: AR
Prep Batch: 76994 QC Preparation: 2012-04-30 Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2360	mg/Kg	1	2500	<3.85	94	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			2470	mg/Kg	1	2500	<3.85	99	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: 90763 Date Analyzed: 2012-05-01 Analyzed By: AR
Prep Batch: 76994 QC Preparation: 2012-04-30 Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2380	mg/Kg	1	2500	<3.85	95	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			2460	mg/Kg	1	2500	<3.85	98	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 90779 Date Analyzed: 2012-05-01 Analyzed By: tc
Prep Batch: 77014 QC Preparation: 2012-05-01 Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.08	mg/Kg	1	2.00	<0.00470	104	86.5 - 124.9
Toluene		1	2.03	mg/Kg	1	2.00	<0.00980	102	84.7 - 122.5
Ethylbenzene		1	1.98	mg/Kg	1	2.00	<0.00500	99	79.4 - 118.9
Xylene		1	5.91	mg/Kg	1	6.00	<0.0170	98	79.5 - 118.9

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
Benzene		1	2.13	mg/Kg	1	2.00	<0.00470	106	86.5 - 124.9	2	20
Toluene		1	2.09	mg/Kg	1	2.00	<0.00980	104	84.7 - 122.5	3	20
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00500	102	79.4 - 118.9	4	20
Xylene		1	6.11	mg/Kg	1	6.00	<0.0170	102	79.5 - 118.9	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.60	1.52	mg/Kg	1	2.00	80	76	73.9 - 127
4-Bromofluorobenzene (4-BFB)	1.58	1.46	mg/Kg	1	2.00	79	73	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90780 Date Analyzed: 2012-05-01 Analyzed By: tc
Prep Batch: 77014 QC Preparation: 2012-05-01 Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	14.3	mg/Kg	1	20.0	<1.22	72	68.3 - 105.7

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.1	mg/Kg	1	20.0	<1.22	80	68.3 - 105.7	12	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)	1.85	1.78	mg/Kg	1	2.00	92	89	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.72	1.70	mg/Kg	1	2.00	86	85	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 90806 | Date Analyzed: 2012-05-02 | Analyzed By: DA
Prep Batch: 77036 | QC Preparation: 2012-05-02 | Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	227	mg/Kg	1	250	<14.5	91	62 - 128.3

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	219	mg/Kg	1	250	<14.5	88	62 - 128.3	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	96.3	97.3	mg/Kg	1	100	96	97	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90827 | Date Analyzed: 2012-05-03 | Analyzed By: tc
Prep Batch: 77059 | QC Preparation: 2012-05-02 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.08	mg/Kg	1	2.00	<0.00470	104	86.5 - 124.9
Toluene		1	2.03	mg/Kg	1	2.00	<0.00980	102	84.7 - 122.5
Ethylbenzene		1	1.98	mg/Kg	1	2.00	<0.00500	99	79.4 - 118.9
Xylene		1	5.91	mg/Kg	1	6.00	<0.0170	98	79.5 - 118.9

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
Benzene		1	2.10	mg/Kg	1	2.00	<0.00470	105	86.5 - 124.9	1	20
Toluene		1	2.06	mg/Kg	1	2.00	<0.00980	103	84.7 - 122.5	2	20
Ethylbenzene		1	2.02	mg/Kg	1	2.00	<0.00500	101	79.4 - 118.9	2	20
Xylene		1	6.05	mg/Kg	1	6.00	<0.0170	101	79.5 - 118.9	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
Trifluorotoluene (TFT)	1.79	1.80	mg/Kg	1	2.00	90	90	73.9 - 127

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control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	1.79	1.78	mg/Kg	1	2.00	90	89	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90828 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77059 QC Preparation: 2012-05-02 Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	14.6	mg/Kg	1	20.0	<1.22	73	68.3 - 105.7

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.6	mg/Kg	1	20.0	<1.22	83	68.3 - 105.7	13	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.05	1.94	mg/Kg	1	2.00	102	97	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.87	1.83	mg/Kg	1	2.00	94	92	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 90849 Date Analyzed: 2012-05-03 Analyzed By: DA
Prep Batch: 77085 QC Preparation: 2012-05-03 Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	222	mg/Kg	1	250	<14.5	89	62 - 128.3

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	220	mg/Kg	1	250	<14.5	88	62 - 128.3	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	99.2	99.4	mg/Kg	1	100	99	99	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90872 Date Analyzed: 2012-05-03 Analyzed By: DA
Prep Batch: 77100 QC Preparation: 2012-05-03 Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	240	mg/Kg	1	250	<14.5	96	62 - 128.3

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	233	mg/Kg	1	250	<14.5	93	62 - 128.3	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	109	108	mg/Kg	1	100	109	108	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90879 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77104 QC Preparation: 2012-05-03 Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.14	mg/Kg	1	2.00	<0.00470	107	86.5 - 124.9
Toluene		1	2.12	mg/Kg	1	2.00	<0.00980	106	84.7 - 122.5
Ethylbenzene		1	2.08	mg/Kg	1	2.00	<0.00500	104	79.4 - 118.9
Xylene		1	6.24	mg/Kg	1	6.00	<0.0170	104	79.5 - 118.9

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
Benzene		1	2.22	mg/Kg	1	2.00	<0.00470	111	86.5 - 124.9	4	20
Toluene		1	2.19	mg/Kg	1	2.00	<0.00980	110	84.7 - 122.5	3	20
Ethylbenzene		1	2.16	mg/Kg	1	2.00	<0.00500	108	79.4 - 118.9	4	20

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Xylene		1	6.46	mg/Kg	1	6.00	<0.0170	108	79.5 - 118.9	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
Trifluorotoluene (TFT)	2.06	2.10	mg/Kg	1	2.00	103	105	73.9 - 127
4-Bromofluorobenzene (4-BFB)	2.10	2.11	mg/Kg	1	2.00	105	106	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90881 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77104 QC Preparation: 2012-05-03 Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.2	mg/Kg	1	20.0	<1.22	81	68.3 - 105.7

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.2	mg/Kg	1	20.0	<1.22	81	68.3 - 105.7	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.18	2.15	mg/Kg	1	2.00	109	108	80 - 111.2
4-Bromofluorobenzene (4-BFB)	2.03	2.02	mg/Kg	1	2.00	102	101	66.4 - 106.6

Matrix Spike (MS-1) Spiked Sample: 295039

QC Batch: 90553 Date Analyzed: 2012-04-24 Analyzed By: DA
Prep Batch: 76815 QC Preparation: 2012-04-24 Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	2340	mg/Kg	5	250	2210	52	45.5 - 127

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	Qs Qs	1	2700	mg/Kg	5	250	2210	196	45.5 - 127	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
n-Tricosane	Qsr	Qsr	378	411	mg/Kg	5	100	378	411	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 295157

QC Batch: 90611 Date Analyzed: 2012-04-25 Analyzed By: tc
Prep Batch: 76879 QC Preparation: 2012-04-25 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	56.8	mg/Kg	50	50.0	3.918	106	69.3 - 159.2
Toluene		1	108	mg/Kg	50	50.0	45.884	124	68.7 - 157
Ethylbenzene		1	110	mg/Kg	50	50.0	50.3205	119	71.6 - 158.2
Xylene		1	263	mg/Kg	50	150	93.1734	113	70.8 - 159.8

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	56.9	mg/Kg	50	50.0	3.918	106	69.3 - 159.2	0	20
Toluene		1	101	mg/Kg	50	50.0	45.884	110	68.7 - 157	7	20
Ethylbenzene		1	102	mg/Kg	50	50.0	50.3205	103	71.6 - 158.2	8	20
Xylene		1	247	mg/Kg	50	150	93.1734	102	70.8 - 159.8	6	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)	40.9	44.3	mg/Kg	50	50	82	89	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	53.2	55.3	mg/Kg	50	50	106	111	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 295158

QC Batch: 90612 Date Analyzed: 2012-04-25 Analyzed By: tc
Prep Batch: 76879 QC Preparation: 2012-04-25 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	6340	mg/Kg	50	500	5925.95	83	28.2 - 157.2

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
GRO	Qr,Qs	Qr,Qs	7790	mg/Kg	50	500	5925.95	373	28.2 - 157.2	20	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)			51.2	51.0	mg/Kg	50	50	102	102	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	66.2	65.4	mg/Kg	50	50	132	131	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 295646

QC Batch: 90687 Date Analyzed: 2012-04-27 Analyzed By: tc
Prep Batch: 76942 QC Preparation: 2012-04-27 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.04	mg/Kg	1	2.00	<0.00470	102	69.3 - 159.2
Toluene		1	2.05	mg/Kg	1	2.00	<0.00980	102	68.7 - 157
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00500	102	71.6 - 158.2
Xylene		1	6.17	mg/Kg	1	6.00	<0.0170	103	70.8 - 159.8

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.95	mg/Kg	1	2.00	<0.00470	98	69.3 - 159.2	4	20
Toluene		1	1.96	mg/Kg	1	2.00	<0.00980	98	68.7 - 157	4	20
Ethylbenzene		1	2.01	mg/Kg	1	2.00	<0.00500	100	71.6 - 158.2	2	20
Xylene		1	6.03	mg/Kg	1	6.00	<0.0170	100	70.8 - 159.8	2	20

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

Surrogate			MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	Qsr	Qsr	1.30	1.95	mg/Kg	1	2	65	98	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	1.27	1.86	mg/Kg	1	2	64	93	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 295426

QC Batch: 90689 | Date Analyzed: 2012-04-30 | Analyzed By: tc
Prep Batch: 76942 | QC Preparation: 2012-04-27 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.5	mg/Kg	1	20.0	<1.22	82	28.2 - 157.2

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
GRO	Qr,Qs	Qr,Qs	1 2.24	mg/Kg	1	20.0	<1.22	11	28.2 - 157.2	152	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)	2.21	2.00	mg/Kg	1	2	110	100	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	1.95	1.79	mg/Kg	1	2	98	90	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 295160

QC Batch: 90712 | Date Analyzed: 2012-04-30 | Analyzed By: DA
Prep Batch: 76960 | QC Preparation: 2012-04-30 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	323	mg/Kg	1	250	28.2	118	45.5 - 127

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	324	mg/Kg	1	250	28.2	118	45.5 - 127	0	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	130	130	mg/Kg	1	100	130	130	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 295046

QC Batch: 90755 | Date Analyzed: 2012-05-01 | Analyzed By: DA
Prep Batch: 76989 | QC Preparation: 2012-05-01 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	297	mg/Kg	1	250	<14.5	119	45.5 - 127

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	295	mg/Kg	1	250	<14.5	118	45.5 - 127	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	126	125	mg/Kg	1	100	126	125	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 295044

QC Batch: 90761 | Date Analyzed: 2012-05-01 | Analyzed By: AR
Prep Batch: 76994 | QC Preparation: 2012-04-30 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			8440	mg/Kg	10	2500	5600	114	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			8120	mg/Kg	10	2500	5600	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.

Matrix Spike (MS-1) Spiked Sample: 295054

QC Batch: 90762 | Date Analyzed: 2012-05-01 | Analyzed By: AR
Prep Batch: 76994 | QC Preparation: 2012-04-30 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6790	mg/Kg	10	2500	4280	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			7010	mg/Kg	10	2500	4280	109	79.4 - 120.6	3	20

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

Matrix Spike (MS-1) Spiked Sample: 295076

QC Batch: 90763 Date Analyzed: 2012-05-01 Analyzed By: AR
Prep Batch: 76994 QC Preparation: 2012-04-30 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2510	mg/Kg	5	2500	<19.2	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			2630	mg/Kg	5	2500	<19.2	105	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: 295046

QC Batch: 90779 Date Analyzed: 2012-05-01 Analyzed By: tc
Prep Batch: 77014 QC Preparation: 2012-05-01 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.37	mg/Kg	1	2.00	<0.00470	118	69.3 - 159.2
Toluene		1	2.38	mg/Kg	1	2.00	<0.00980	119	68.7 - 157
Ethylbenzene		1	2.43	mg/Kg	1	2.00	<0.00500	122	71.6 - 158.2
Xylene		1	7.28	mg/Kg	1	6.00	<0.0170	121	70.8 - 159.8

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

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matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.24	mg/Kg	1	2.00	<0.00470	112	69.3 - 159.2	6	20
Toluene		1	2.28	mg/Kg	1	2.00	<0.00980	114	68.7 - 157	4	20
Ethylbenzene		1	2.33	mg/Kg	1	2.00	<0.00500	116	71.6 - 158.2	4	20
Xylene		1	7.04	mg/Kg	1	6.00	<0.0170	117	70.8 - 159.8	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.28	2.09	mg/Kg	1	2	114	104	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	2.18	1.92	mg/Kg	1	2	109	96	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 295045

QC Batch: 90780 Date Analyzed: 2012-05-01 Analyzed By: tc
Prep Batch: 77014 QC Preparation: 2012-05-01 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	24.7	mg/Kg	1	20.0	1.6489	115	28.2 - 157.2

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
GRO		1	24.2	mg/Kg	1	20.0	1.6489	113	28.2 - 157.2	2	20

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

Surrogate			MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	Qsr	Qsr	2.60	2.32	mg/Kg	1	2	130	116	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)			2.37	2.15	mg/Kg	1	2	118	108	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 295058

QC Batch: 90806 Date Analyzed: 2012-05-02 Analyzed By: DA
Prep Batch: 77036 QC Preparation: 2012-05-02 Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	253	mg/Kg	1	250	17.8	94	45.5 - 127

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	255	mg/Kg	1	250	17.8	95	45.5 - 127	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	103	103	mg/Kg	1	100	103	103	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 295058

QC Batch: 90827 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77059 QC Preparation: 2012-05-02 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.17	mg/Kg	1	2.00	<0.00470	108	69.3 - 159.2
Toluene		1	2.18	mg/Kg	1	2.00	<0.00980	109	68.7 - 157
Ethylbenzene		1	2.23	mg/Kg	1	2.00	<0.00500	112	71.6 - 158.2
Xylene		1	6.70	mg/Kg	1	6.00	<0.0170	112	70.8 - 159.8

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.14	mg/Kg	1	2.00	<0.00470	107	69.3 - 159.2	1	20
Toluene		1	2.18	mg/Kg	1	2.00	<0.00980	109	68.7 - 157	0	20
Ethylbenzene		1	2.22	mg/Kg	1	2.00	<0.00500	111	71.6 - 158.2	0	20
Xylene		1	6.71	mg/Kg	1	6.00	<0.0170	112	70.8 - 159.8	0	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)	2.22	2.16	mg/Kg	1	2	111	108	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	2.11	2.07	mg/Kg	1	2	106	104	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 295058

QC Batch: 90828 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77059 QC Preparation: 2012-05-02 Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.5	mg/Kg	1	20.0	<1.22	88	28.2 - 157.2

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
GRO	Qr	Qr 1	21.8	mg/Kg	1	20.0	<1.22	109	28.2 - 157.2	22	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)	2.35	2.13	mg/Kg	1	2	118	106	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	2.02	1.94	mg/Kg	1	2	101	97	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 295059

QC Batch: 90849 Date Analyzed: 2012-05-03 Analyzed By: DA
Prep Batch: 77085 QC Preparation: 2012-05-03 Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	239	mg/Kg	1	250	<14.5	96	45.5 - 127

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	242	mg/Kg	1	250	<14.5	97	45.5 - 127	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	104	105	mg/Kg	1	100	104	105	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 295062

QC Batch: 90872 | Date Analyzed: 2012-05-03 | Analyzed By: DA
Prep Batch: 77100 | QC Preparation: 2012-05-03 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	257	mg/Kg	1	250	<14.5	103	45.5 - 127

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	244	mg/Kg	1	250	<14.5	98	45.5 - 127	5	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	110	111	mg/Kg	1	100	110	111	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 295062

QC Batch: 90879 | Date Analyzed: 2012-05-03 | Analyzed By: tc
Prep Batch: 77104 | QC Preparation: 2012-05-03 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.25	mg/Kg	1	2.00	<0.00470	112	69.3 - 159.2
Toluene		1	2.27	mg/Kg	1	2.00	<0.00980	114	68.7 - 157
Ethylbenzene		1	2.33	mg/Kg	1	2.00	<0.00500	116	71.6 - 158.2
Xylene		1	7.04	mg/Kg	1	6.00	<0.0170	117	70.8 - 159.8

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.22	mg/Kg	1	2.00	<0.00470	111	69.3 - 159.2	1	20
Toluene		1	2.24	mg/Kg	1	2.00	<0.00980	112	68.7 - 157	1	20
Ethylbenzene		1	2.32	mg/Kg	1	2.00	<0.00500	116	71.6 - 158.2	0	20
Xylene		1	6.97	mg/Kg	1	6.00	<0.0170	116	70.8 - 159.8	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.26	2.22	mg/Kg	1	2	113	111	71.4 - 133.9

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	2.26	2.24	mg/Kg	1	2	113	112	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 295062

QC Batch: 90881 Date Analyzed: 2012-05-03 Analyzed By: tc
Prep Batch: 77104 QC Preparation: 2012-05-03 Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.3	mg/Kg	1	20.0	<1.22	96	28.2 - 157.2

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
GRO		1	18.4	mg/Kg	1	20.0	<1.22	92	28.2 - 157.2	5	20

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

Surrogate			MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	Qsr	Qsr	2.45	2.43	mg/Kg	1	2	122	122	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)			2.28	2.28	mg/Kg	1	2	114	114	77.9 - 122.4

Calibration Standards

Standard (CCV-2)

QC Batch: 90553 Date Analyzed: 2012-04-24 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	236	94	80 - 120	2012-04-24

Standard (CCV-3)

QC Batch: 90553 Date Analyzed: 2012-04-24 Analyzed By: DA

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	2012-04-24

Standard (CCV-4)

QC Batch: 90553 Date Analyzed: 2012-04-24 Analyzed By: DA

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	2012-04-24

Standard (CCV-1)

QC Batch: 90611 Date Analyzed: 2012-04-25 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0925	92	80 - 120	2012-04-25
Toluene		1	mg/kg	0.100	0.0912	91	80 - 120	2012-04-25

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		1	mg/kg	0.100	0.0883	88	80 - 120	2012-04-25
Xylene		1	mg/kg	0.300	0.266	89	80 - 120	2012-04-25

Standard (CCV-2)

QC Batch: 90611 Date Analyzed: 2012-04-25 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.104	104	80 - 120	2012-04-25
Toluene		1	mg/kg	0.100	0.105	105	80 - 120	2012-04-25
Ethylbenzene		1	mg/kg	0.100	0.0991	99	80 - 120	2012-04-25
Xylene		1	mg/kg	0.300	0.295	98	80 - 120	2012-04-25

Standard (CCV-3)

QC Batch: 90611 Date Analyzed: 2012-04-25 Analyzed By: tc

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	2012-04-25
Toluene		1	mg/kg	0.100	0.0991	99	80 - 120	2012-04-25
Ethylbenzene		1	mg/kg	0.100	0.0945	94	80 - 120	2012-04-25
Xylene		1	mg/kg	0.300	0.281	94	80 - 120	2012-04-25

Standard (CCV-1)

QC Batch: 90612 Date Analyzed: 2012-04-25 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.07	107	80 - 120	2012-04-25

Standard (CCV-2)

QC Batch: 90612 Date Analyzed: 2012-04-25 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.18	118	80 - 120	2012-04-25

Standard (CCV-3)

QC Batch: 90612 Date Analyzed: 2012-04-25 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.13	113	80 - 120	2012-04-25

Standard (CCV-2)

QC Batch: 90687 Date Analyzed: 2012-04-27 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.110	110	80 - 120	2012-04-27
Toluene		1	mg/kg	0.100	0.107	107	80 - 120	2012-04-27
Ethylbenzene		1	mg/kg	0.100	0.102	102	80 - 120	2012-04-27
Xylene		1	mg/kg	0.300	0.309	103	80 - 120	2012-04-27

Standard (CCV-3)

QC Batch: 90687 Date Analyzed: 2012-04-27 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-27
Toluene		1	mg/kg	0.100	0.103	103	80 - 120	2012-04-27
Ethylbenzene		1	mg/kg	0.100	0.101	101	80 - 120	2012-04-27
Xylene		1	mg/kg	0.300	0.302	101	80 - 120	2012-04-27

Standard (CCV-2)

QC Batch: 90689 Date Analyzed: 2012-04-30 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.01	101	80 - 120	2012-04-30

Standard (CCV-3)

QC Batch: 90689 Date Analyzed: 2012-04-30 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.889	89	80 - 120	2012-04-30

Standard (CCV-2)

QC Batch: 90712 Date Analyzed: 2012-04-30 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	271	108	80 - 120	2012-04-30

Standard (CCV-3)

QC Batch: 90712 Date Analyzed: 2012-04-30 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	280	112	80 - 120	2012-04-30

Standard (CCV-1)

QC Batch: 90755 Date Analyzed: 2012-05-01 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	287	115	80 - 120	2012-05-01

Standard (CCV-2)

QC Batch: 90755 Date Analyzed: 2012-05-01 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	219	88	80 - 120	2012-05-01

Standard (CCV-1)

QC Batch: 90761 Date Analyzed: 2012-05-01 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	101	101	85 - 115	2012-05-01

Standard (CCV-2)

QC Batch: 90761 Date Analyzed: 2012-05-01 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	98.9	99	85 - 115	2012-05-01

Standard (CCV-1)

QC Batch: 90762 Date Analyzed: 2012-05-01 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	99.2	99	85 - 115	2012-05-01

Standard (CCV-2)

QC Batch: 90762 Date Analyzed: 2012-05-01 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	101	101	85 - 115	2012-05-01

Standard (CCV-1)

QC Batch: 90763 Date Analyzed: 2012-05-01 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	2012-05-01

Standard (CCV-2)

QC Batch: 90763 Date Analyzed: 2012-05-01 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	99.7	100	85 - 115	2012-05-01

Standard (CCV-1)

QC Batch: 90779 Date Analyzed: 2012-05-01 Analyzed By: tc

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	2012-05-01
Toluene		1	mg/kg	0.100	0.104	104	80 - 120	2012-05-01
Ethylbenzene		1	mg/kg	0.100	0.0998	100	80 - 120	2012-05-01
Xylene		1	mg/kg	0.300	0.300	100	80 - 120	2012-05-01

Standard (CCV-2)

QC Batch: 90779 Date Analyzed: 2012-05-01 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.108	108	80 - 120	2012-05-01
Toluene		1	mg/kg	0.100	0.105	105	80 - 120	2012-05-01
Ethylbenzene		1	mg/kg	0.100	0.104	104	80 - 120	2012-05-01
Xylene		1	mg/kg	0.300	0.308	103	80 - 120	2012-05-01

Standard (CCV-1)

QC Batch: 90780 Date Analyzed: 2012-05-01 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.896	90	80 - 120	2012-05-01

Standard (CCV-2)

QC Batch: 90780 Date Analyzed: 2012-05-01 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.945	94	80 - 120	2012-05-01

Standard (CCV-2)

QC Batch: 90806 Date Analyzed: 2012-05-02 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	219	88	80 - 120	2012-05-02

Standard (CCV-3)

QC Batch: 90806 Date Analyzed: 2012-05-02 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	223	89	80 - 120	2012-05-02

Standard (CCV-1)

QC Batch: 90827 Date Analyzed: 2012-05-03 Analyzed By: tc

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	2012-05-03
Toluene		1	mg/kg	0.100	0.103	103	80 - 120	2012-05-03
Ethylbenzene		1	mg/kg	0.100	0.102	102	80 - 120	2012-05-03
Xylene		1	mg/kg	0.300	0.303	101	80 - 120	2012-05-03

Standard (CCV-2)

QC Batch: 90827 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-05-03
Toluene		1	mg/kg	0.100	0.103	103	80 - 120	2012-05-03
Ethylbenzene		1	mg/kg	0.100	0.100	100	80 - 120	2012-05-03
Xylene		1	mg/kg	0.300	0.300	100	80 - 120	2012-05-03

Standard (CCV-1)

QC Batch: 90828 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.02	102	80 - 120	2012-05-03

Standard (CCV-2)

QC Batch: 90828 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.961	96	80 - 120	2012-05-03

Standard (CCV-1)

QC Batch: 90849 Date Analyzed: 2012-05-03 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	227	91	80 - 120	2012-05-03

Standard (CCV-2)

QC Batch: 90849 Date Analyzed: 2012-05-03 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	229	92	80 - 120	2012-05-03

Standard (CCV-1)

QC Batch: 90872 Date Analyzed: 2012-05-03 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	236	94	80 - 120	2012-05-03

Standard (CCV-2)

QC Batch: 90872 Date Analyzed: 2012-05-03 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	243	97	80 - 120	2012-05-03

Standard (CCV-1)

QC Batch: 90879 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.108	108	80 - 120	2012-05-03
Toluene		1	mg/kg	0.100	0.108	108	80 - 120	2012-05-03
Ethylbenzene		1	mg/kg	0.100	0.105	105	80 - 120	2012-05-03
Xylene		1	mg/kg	0.300	0.313	104	80 - 120	2012-05-03

Standard (CCV-2)

QC Batch: 90879 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.112	112	80 - 120	2012-05-03
Toluene		1	mg/kg	0.100	0.111	111	80 - 120	2012-05-03
Ethylbenzene		1	mg/kg	0.100	0.108	108	80 - 120	2012-05-03
Xylene		1	mg/kg	0.300	0.327	109	80 - 120	2012-05-03

Standard (CCV-1)

QC Batch: 90881 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.04	104	80 - 120	2012-05-03

Standard (CCV-2)

QC Batch: 90881 Date Analyzed: 2012-05-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.01	101	80 - 120	2012-05-03

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	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 then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

10047408

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 4

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9

Eddy Co. NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD.	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
395035	4/19		S		X	AH-1	0-1'	1			X		X	X												X				
036							1-1.5'																			X				
037							2-2.5'																			X				
038							3-3.5'																			X				
039						AH-2	0-1'						X	X												X				
040							1-1.5'																			X				
041							2-2.5'																			X				
042							3-3.5'																			X				
043						AH-3	0-1'						X	X												X				
044			↓		↓		1-1.5'	↓			↓															X				

RELINQUISHED BY: (Signature)	Date: 4/23/12 Time: 4:50 pm	RECEIVED BY: (Signature)	Date: 4/23/12 Time: 4:50
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) TF RS — Date: 4-19-12 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS: Run deeper samples if TPH exceed 5000 mg/kg All test Midland Lab

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

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

10U7a46B

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 4

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401316.5

PROJECT NAME: Electra Federal #9 Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
045	4/19		S		X	AH-3 2-2.5'	1				X														X			
046						2.5-3'																			X			
047						AH-4 0-1'							X	X											X			
048						1-1.5'																			X			
049						2-2.5'																			X			
050						3-3.5'																			X			
051						4-4.5'																			X			
052						5-5.5'																			X			
053						6-6.5'																			X			
054						7-7.5'																			X			

RELINQUISHED BY: (Signature) Date: 4/19/12 Time: 4:50 PM
RECEIVED BY: (Signature) Date: 4/23/12 Time: 10:30

SAMPLED BY: (Print & Initial) TF RS Date: 4-19-12 Time:

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

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS:

AJ

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

12043408

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9 Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
055	4/19		S		X	AH-4 8-8.5'	1				X													X				
056						9-9.5'																		X				
057						AH-5 0-1'							X	X										X				
058						1-1.5'																		X				
059						2-2.5'																		X				
060						3-3.5'																		X				
061						4-4.5'																		X				
062						5-5.5'																		X				
063						6-6.5'																		X				
064						7-7.5'																		X				

Hold

RELINQUISHED BY: (Signature) Date: 4-19-12 Time: 4:30 P.M. RECEIVED BY: (Signature) Date: 4/20/12 Time: 16:50

SAMPLED BY: (Print & Initial) TF / RS Date: 4-19-12 Time:

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

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.9° intact

REMARKS:

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

1304:1463

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 4

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9 Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
065	4/19		S		X	AH-5 8-8.5'	1				X												X	X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 4/23/12 Time: 4:50pm	RECEIVED BY: (Signature)	Date: 4/23/12 Time: 16:50	SAMPLED BY: (Print & Initial) TF / RS Date: 4-19-12 Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS:

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

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 4

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9

Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST: BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
395035	4/19		S		X	AH-1	0-1'	1				X		X	X										X				
036							1-1.5'																		X				
037							2-2.5'																		X				
038							3-3.5'																		X				
039						AH-2	0-1'							X	X										X				
040							1-1.5'																		X				
041							2-2.5'																		X				
042							3-3.5'																		X				
043						AH-3	0-1'							X	X										X				
044			↓		↓		1-1.5' ↓	↓				↓		X	X										X				

RELINQUISHED BY: (Signature) Date: 4/23/12 Time: 4:50 pm — RECEIVED BY: (Signature) Date: 4/23/12 Time: 4:50

SAMPLED BY: (Print & Initial) TF BS Date: 4-19-12 Time:

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

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: MAY OTHER: 2 2012

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)

ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE: DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS: Run deepest Samples if TPH exceed 500 mg/kg All test Midland

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

Run deepest Samples if benzene exceed 10 mg/kg or total BTEX exceed 50 mg/kg

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:	SITE MANAGER:
COG	Ike Tavarez

PROJECT NO.:	PROJECT NAME:
114-64013605	Electra Federal #9 Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
045	4/19		S		X	AH-3 2-2.5'	1				X													X				
046						2.5-3'																		X				
047						AH-4 0-1'							X	X	X									X				
048						1-1.5'							X	X										X				
049						2-2.5'																		X				
050						3-3.5'																		X				
051						4-4.5'																		X				
052						5-5.5'																		X				
053						6-6.5'																		X				
054						7-7.5'																		X				

RELINQUISHED BY: (Signature)	Date: 4/20/12 Time: 4:50 PM	RECEIVED BY: (Signature)	Date: 4/23/12 Time: 10:50
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) TF RS — Date: 4-19-12 Time:

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

RECEIVING LABORATORY: ~~Midland~~ Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE: DATE: TIME:
RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS:

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

1056401410

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9 Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

per Jeanne 5/2/12 @

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
055	4/19		S		X	AH-4 8-8.5'	1				X													X				
056						9-9.5'																		X				
057						AH-5 0-1'							X	X	X									X				
058						1-1.5'							X	X	X									X				
059						2-2.5'							X	X	X									X				
060						3-3.5'							X	X	X									X				
061						4-4.5'																		X				
062						5-5.5'																		X				
063						6-6.5'																		X				
064						7-7.5'																		X				

RELINQUISHED BY: (Signature) Date: 4/23/12 Time: 4:50 PM RECEIVED BY: (Signature) Date: 4/23/12 Time: 16:50

SAMPLED BY: (Print & Initial) TF / BS Date: 4-19-12 Time:

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 3.9° intact

REMARKS:

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

1RV407468

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 4

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9

Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
065	4/19		S		X	AH-5 8-8.5'	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
										Hold		Hold				

RELINQUISHED BY: (Signature) Date: 4-23-12 Time: 11:58h — RECEIVED BY: (Signature) Date: 4/23/12 Time: 16:50

SAMPLED BY: (Print & Initial) TF RS Date: 4-19-12 Time:

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RECEIVING LABORATORY: Xenco
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE: — RECEIVED BY: (Signature) DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° Intact

REMARKS:

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

1RP-2408

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 4

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9

Eddy Co. NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
395035	4/19		S		X	AH-1 0-1'	1				X		X	X											X			
036						1-1.5'																			X			
037						2-2.5'																			X			
038						3-3.5'																			X			
039						AH-2 0-1'							X	X											X			
040						1-1.5'																			X			
041						2-2.5'																			X			
042						3-3.5'																			X			
043						AH-3 0-1'							X	X											X			
044						1-1.5'							X	X											X			

RELINQUISHED BY: (Signature) Date: 4/23/12 Time: 4:50 pm
RECEIVED BY: (Signature) Date: 4/23/12 Time: 4:50

SAMPLED BY: (Print & Initial) TF RS Date: 4-19-12 Time:

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

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #: MAY 2 2012

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS: Run deeper samples if TPH exceed 500 mg/kg All test Midland Lab

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

Run deeper samples if benzene exceed 10 mg/kg or total BTEX exceed 50 mg/kg

1204048

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9 Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
045	4/19		S		X	AH-3 2-2.5'	1				X													X				
046						2.5-3'																		X				
047						AH-4 0-1'							X	X	X									X				
048						1-1.5'							X	X	X									X				
049						2-2.5'																		X				
050						3-3.5'																		X				
051						4-4.5'																		X				
052						5-5.5'																		X				
053						6-6.5'																		X				
054						7-7.5'																		X				

RELINQUISHED BY: (Signature) Date: 4/19/12 Time: 4:50 — RECEIVED BY: (Signature) Date: 4/23/12 Time: 10:30

SAMPLED BY: (Print & Initial) TF RS Date: 4-19-12 Time:

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

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

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

RECEIVING LABORATORY: ~~Midland~~ Trace — RECEIVED BY: (Signature)

ADDRESS: CITY: Midland STATE: TX ZIP:

CONTACT: PHONE: DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° intact

REMARKS:

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

1076407646

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

Per Jeanne 5/2/12 @

CLIENT NAME:	SITE MANAGER:
COG	Ike Tavarez

PROJECT NO.:	PROJECT NAME:
114-2401365	Electra Federal #9 Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
055	4/19		S		X	AH-4 8-8.5'	1				X													X				
056						9-9.5'																		X				
057						AH-5 0-1'							X	X										X				
058						1-1.5'							X	X										X				
059						2-2.5'							X	X										X				
060						3-3.5'							X	X										X				
061						4-4.5'							X	X										X				
062						5-5.5'							X	X										X				
063						6-6.5'																		X				
064						7-7.5'																Hold						

RELINQUISHED BY: (Signature)	Date: 4/23/12 Time: 1:30 PM	RECEIVED BY: (Signature)	Date: 4/23/12 Time: 16:50
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) TF BS — Date: 4-19-12 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 3.9° Intact

REMARKS:

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

1RU4017048

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 4

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9

Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
065	4/19		S		X	AH-5 8-8.5'	1				X													X	X			

RELINQUISHED BY: (Signature) — Date: 4/23/12 Time: 4:50pm — RECEIVED BY: (Signature) — Date: 4/23/12 Time: 16:50

SAMPLED BY: (Print & Initial) TF / RS — Date: 4-19-12 Time:

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

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 39° Intact

REMARKS:

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

Summary Report

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

Report Date: July 18, 2012

Work Order: 12071202

Project Location: Eddy Co., NM
Project Name: COG/Electra Federal #9
Project Number: 114-6401365

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
303355	Side Wall 1	soil	2012-06-27	00:00	2012-07-11
303356	Side Wall 2	soil	2012-06-27	00:00	2012-07-11
303357	Bottom Hole 1	soil	2012-06-27	00:00	2012-07-11
303358	Side Wall 3	soil	2012-06-28	00:00	2012-07-11
303359	Side Wall 4	soil	2012-06-28	00:00	2012-07-11
303360	T-1 3'	soil	2012-06-28	00:00	2012-07-11
303361	T-1 4'	soil	2012-06-28	00:00	2012-07-11
303362	T-1 6'	soil	2012-06-28	00:00	2012-07-11
303363	T-1 8'	soil	2012-06-28	00:00	2012-07-11
303364	T-1 10'	soil	2012-06-28	00:00	2012-07-11
303365	Side Wall 5	soil	2012-06-29	00:00	2012-07-11
303366	Side Wall 6	soil	2012-06-29	00:00	2012-07-11
303367	Side Wall 7	soil	2012-06-29	00:00	2012-07-11
303368	Bottom Hole 2	soil	2012-06-29	00:00	2012-07-11
303369	Bottom Hole 3	soil	2012-06-29	00:00	2012-07-11
303370	T-2 2'	soil	2012-07-06	00:00	2012-07-11
303371	T-2 4'	soil	2012-07-06	00:00	2012-07-11
303372	T-2 6'	soil	2012-07-06	00:00	2012-07-11
303373	T-2 8'	soil	2012-07-06	00:00	2012-07-11
303374	T-2 10'	soil	2012-07-06	00:00	2012-07-11

Sample: 303355 - Side Wall 1

Param	Flag	Result	Units	RL
Chloride		**1340**	mg/Kg	4

Sample: 303356 - Side Wall 2

Param	Flag	Result	Units	RL
Chloride		**249**	mg/Kg	4

Sample: 303357 - Bottom Hole 1

Param	Flag	Result	Units	RL
Chloride		**5460**	mg/Kg	4

Sample: 303358 - Side Wall 3

Param	Flag	Result	Units	RL
Chloride		**361**	mg/Kg	4

Sample: 303359 - Side Wall 4

Param	Flag	Result	Units	RL
Chloride		**63.5**	mg/Kg	4

Sample: 303360 - T-1 3'

Param	Flag	Result	Units	RL
Chloride		**5620**	mg/Kg	4

Sample: 303361 - T-1 4'

Param	Flag	Result	Units	RL
Chloride		**3300**	mg/Kg	4

Sample: 303362 - T-1 6'

Param	Flag	Result	Units	RL
Chloride		**2580**	mg/Kg	4

Sample: 303363 - T-1 8'

Param	Flag	Result	Units	RL
Chloride		**3480**	mg/Kg	4

Sample: 303364 - T-1 10'

Param	Flag	Result	Units	RL
Chloride		**2670**	mg/Kg	4

Sample: 303365 - Side Wall 5

Param	Flag	Result	Units	RL
Chloride		**5730**	mg/Kg	4

Sample: 303366 - Side Wall 6

Param	Flag	Result	Units	RL
Chloride		**68.1**	mg/Kg	4

Sample: 303367 - Side Wall 7

Param	Flag	Result	Units	RL
Chloride		**131**	mg/Kg	4

Sample: 303368 - Bottom Hole 2

Param	Flag	Result	Units	RL
Chloride		**4460**	mg/Kg	4

Sample: 303369 - Bottom Hole 3

Param	Flag	Result	Units	RL
Chloride		**2780**	mg/Kg	4

Sample: 303370 - T-2 2'

Param	Flag	Result	Units	RL
Chloride		**594**	mg/Kg	4

Sample: 303371 - T-2 4'

Param	Flag	Result	Units	RL
Chloride		**703**	mg/Kg	4

Sample: 303372 - T-2 6'

Param	Flag	Result	Units	RL
Chloride		**337**	mg/Kg	4

Sample: 303373 - T-2 8'

Param	Flag	Result	Units	RL
Chloride		**469**	mg/Kg	4

Sample: 303374 - T-2 10'

Param	Flag	Result	Units	RL
Chloride		**347**	mg/Kg	4

TRACEANALYSIS, INC.

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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: July 18, 2012

Work Order: 12071202

Project Location: Eddy Co., NM
Project Name: COG/Electra Federal #9
Project Number: 114-6401365

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
303355	Side Wall 1	soil	2012-06-27	00:00	2012-07-11
303356	Side Wall 2	soil	2012-06-27	00:00	2012-07-11
303357	Bottom Hole 1	soil	2012-06-27	00:00	2012-07-11
303358	Side Wall 3	soil	2012-06-28	00:00	2012-07-11
303359	Side Wall 4	soil	2012-06-28	00:00	2012-07-11
303360	T-1 3'	soil	2012-06-28	00:00	2012-07-11
303361	T-1 4'	soil	2012-06-28	00:00	2012-07-11
303362	T-1 6'	soil	2012-06-28	00:00	2012-07-11
303363	T-1 8'	soil	2012-06-28	00:00	2012-07-11
303364	T-1 10'	soil	2012-06-28	00:00	2012-07-11
303365	Side Wall 5	soil	2012-06-29	00:00	2012-07-11
303366	Side Wall 6	soil	2012-06-29	00:00	2012-07-11
303367	Side Wall 7	soil	2012-06-29	00:00	2012-07-11
303368	Bottom Hole 2	soil	2012-06-29	00:00	2012-07-11
303369	Bottom Hole 3	soil	2012-06-29	00:00	2012-07-11
303370	T-2 2'	soil	2012-07-06	00:00	2012-07-11
303371	T-2 4'	soil	2012-07-06	00:00	2012-07-11
303372	T-2 6'	soil	2012-07-06	00:00	2012-07-11

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
303373	T-2 8'	soil	2012-07-06	00:00	2012-07-11
303374	T-2 10'	soil	2012-07-06	00:00	2012-07-11

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

Michael Abel

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

Report Contents

Case Narrative

Samples for project COG/Electra Federal #9 were received by TraceAnalysis, Inc. on 2012-07-11 and assigned to work order 12071202. Samples for work order 12071202 were received intact at a temperature of 4 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	78903	2012-07-12 at 10:30	93126	2012-07-17 at 15:41
Chloride (Titration)	SM 4500-Cl B	78903	2012-07-12 at 10:30	93127	2012-07-17 at 15:42
Chloride (Titration)	SM 4500-Cl B	78903	2012-07-12 at 10:30	93129	2012-07-17 at 15:43

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 12071202 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 303355 - Side Wall 1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1340**	mg/Kg	10	4.00

Sample: 303356 - Side Wall 2

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**249**	mg/Kg	5	4.00

Sample: 303357 - Bottom Hole 1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5460**	mg/Kg	10	4.00

Sample: 303358 - Side Wall 3

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**361**	mg/Kg	5	4.00

Sample: 303359 - Side Wall 4

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**63.5**	mg/Kg	5	4.00

Sample: 303360 - T-1 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5620**	mg/Kg	10	4.00

Sample: 303361 - T-1 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3300**	mg/Kg	10	4.00

Sample: 303362 - T-1 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2580**	mg/Kg	10	4.00

Sample: 303363 - T-1 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3480**	mg/Kg	10	4.00

Sample: 303364 - T-1 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2670**	mg/Kg	10	4.00

Sample: 303365 - Side Wall 5

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5730**	mg/Kg	10	4.00

Sample: 303366 - Side Wall 6

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**68.1**	mg/Kg	5	4.00

Sample: 303367 - Side Wall 7

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**131**	mg/Kg	5	4.00

Sample: 303368 - Bottom Hole 2

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4460**	mg/Kg	10	4.00

Sample: 303369 - Bottom Hole 3

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2780**	mg/Kg	10	4.00

Sample: 303370 - T-2 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**594**	mg/Kg	5	4.00

Sample: 303371 - T-2 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93129	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**703**	mg/Kg	5	4.00

Sample: 303372 - T-2 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93129	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**337**	mg/Kg	5	4.00

Sample: 303373 - T-2 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93129	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**469**	mg/Kg	5	4.00

Sample: 303374 - T-2 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	93129	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	Sample Preparation:	2012-07-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**347**	mg/Kg	5	4.00

Method Blanks

Method Blank (1) QC Batch: 93126

QC Batch:	93126	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	QC Preparation:	2012-07-12	Prepared By:	AR

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

Method Blank (1) QC Batch: 93127

QC Batch:	93127	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	QC Preparation:	2012-07-12	Prepared By:	AR

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

Method Blank (1) QC Batch: 93129

QC Batch:	93129	Date Analyzed:	2012-07-17	Analyzed By:	AR
Prep Batch:	78903	QC Preparation:	2012-07-12	Prepared By:	AR

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

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 93126 | Date Analyzed: 2012-07-17 | Analyzed By: AR
Prep Batch: 78903 | QC Preparation: 2012-07-12 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2570	mg/Kg	1	2500	<3.85	103	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			2690	mg/Kg	1	2500	<3.85	108	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: 93127 | Date Analyzed: 2012-07-17 | Analyzed By: AR
Prep Batch: 78903 | QC Preparation: 2012-07-12 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	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			2700	mg/Kg	1	2500	<3.85	108	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 93129 | Date Analyzed: 2012-07-17 | Analyzed By: AR
Prep Batch: 78903 | QC Preparation: 2012-07-12 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2530	mg/Kg	1	2500	<3.85	101	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2650	mg/Kg	1	2500	<3.85	106	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: 303360

QC Batch: 93126 Date Analyzed: 2012-07-17 Analyzed By: AR
Prep Batch: 78903 QC Preparation: 2012-07-12 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			8170	mg/Kg	10	2500	5620	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			8430	mg/Kg	10	2500	5620	112	79.4 - 120.6	3	20

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

Matrix Spike (MS-1) Spiked Sample: 303370

QC Batch: 93127 Date Analyzed: 2012-07-17 Analyzed By: AR
Prep Batch: 78903 QC Preparation: 2012-07-12 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3110	mg/Kg	5	2500	594	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			3180	mg/Kg	5	2500	594	103	79.4 - 120.6	2	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: 303374

QC Batch: 93129 Date Analyzed: 2012-07-17 Analyzed By: AR
Prep Batch: 78903 QC Preparation: 2012-07-12 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2750	mg/Kg	5	2500	347	96	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			2830	mg/Kg	5	2500	347	99	79.4 - 120.6	3	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 93126 | Date Analyzed: 2012-07-17 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-07-17

Standard (CCV-2)

QC Batch: 93126 | Date Analyzed: 2012-07-17 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-07-17

Standard (CCV-1)

QC Batch: 93127 | Date Analyzed: 2012-07-17 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-07-17

Standard (CCV-2)

QC Batch: 93127 | Date Analyzed: 2012-07-17 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2012-07-17

Standard (CCV-1)

QC Batch: 93129 | Date Analyzed: 2012-07-17 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-07-17

Standard (CCV-2)

QC Batch: 93129 | Date Analyzed: 2012-07-17 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-07-17

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

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

Attachments

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

Jac 11200

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 2

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-640136.05

PROJECT NAME: Electra Federal #9 Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
303355	6/27		S		X	Side Wall 1	1																		X				
356	↓					Side Wall 2																			X				
357	↓					Bottom Hole 1																			X				
358	6/28					Side Wall 3																			X				
359						Side Wall 4																			X				
360						T-1 3'																			X				
361						4'																			X				
362						6'																			X				
363						8'																			X				
364	↓		↓		↓	10'	↓																		X				

RELINQUISHED BY: (Signature) Date: 7-11-12 Time: 2:10 RECEIVED BY: (Signature) Date: 7-11-12 Time: 2:10 pm

SAMPLED BY: (Print & Initial) TF Date: 7-6-12 Time:

RELINQUISHED BY: (Signature) Date: 7-11-12 Time: 2:45 pm RECEIVED BY: (Signature) Date: Time:

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RECEIVING LABORATORY: Trace RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE: DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Cool

REMARKS: Midland Lab

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

19- . . d

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401365

PROJECT NAME: Electra Federal #9

Eddy Co NM

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
365	6/29		S		X	Side Wall 5	1																		X			
366						Side Wall 6																			X			
367						Side Wall 7																			X			
368						Bottom Hole 2																			X			
369						Bottom Hole 3																			X			
370	7/10					T-2 2'																			X			
371						4'																			X			
372						6'																			X			
373						8'																			X			
374						10'																			X			

RELINQUISHED BY: (Signature) — Date: 7-11-12 Time: 2:10

RECEIVED BY: (Signature) — Date: 7/11/12 Time: 2:10pm

RELINQUISHED BY: (Signature) — Date: 7-11-12 Time: 2:45pm

RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Initial) TF — Date: 7-6-12 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Trail

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

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