

SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	Electra Federal #5 - Water Line	
Company:	COG Operating LLC	
Section, Township and Range	Unit A - Section 21 - Township 17S - Range 30E	
Lease Number:	30-015-34211	
County:	Eddy County	
GPS:	32.82343	103.96848
Surface Owner:	Federal	
Mineral Owner:		
Directions:	From the intersection of Hwy 82 and CR-219 in Loco Hills, travel north on CR-219 for 0.4 mi, turn right (east) go 0.5 miles to Well pad (Apache EI Federal #10, spill area is located approx. 300' SE of well pad.	

Release Data:

Date Released:	11/3/2010
Type Release:	Produced Water
Source of Contamination:	4" Water line
Fluid Released:	30 bbls
Fluids Recovered:	25 bbls

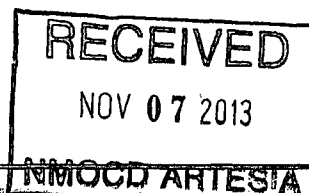
Official Communication:

Name:	Robert McNeill	Ike Tavaréz
Company:	COG Operating, LLC	Tetra Tech
Address:	One Concho Center	1910 N. Big Spring
P.O. Box	600 W. Illinois Ave.	
City:	Midland Texas, 79701	Midland, Texas
Phone number:	(432) 686-3023	432-682-4559
Fax:	(432) 684-7137	
Email:	rmcneill@concho.com	ike.tavarez@tetratech.com

Ranking Criteria

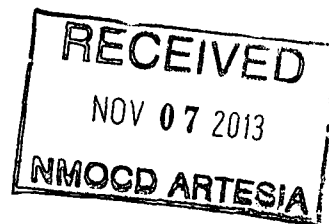
Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft:	0	
Wellhead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10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

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





TETRA TECH



October 28, 2013

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

Re: Closure Report for the COG Operating LLC., Electra Federal #5 Flow line, Unit A, Section 21, 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 release from a 4-inch poly line associated with the Electra Federal #5, Unit A, Section 21, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.82343°, W 103.96848°. The site location is shown on Figures 1 and 2.

Background

On November 3, 2010, Ferguson Construction was installing an underground line for Holly Energy. Prior to trenching, Ferguson moved a COG 4-inch poly line and which parted while being moved. As results, the leak released approximately 30 barrels of produced water. COG immediately responded and recovered 25 barrels of fluid with a vacuum truck. According to the C-141, the spill affected an area measuring 70' x 85' directly on and adjacent to the poly line right-of-way. Ferguson has since installed the Holly Energy line and backfilled the site. The final C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 21. According to the NMOCD groundwater map, the average depth to groundwater in the area is approximately 300' below surface. The average depth to groundwater map is shown in Appendix B.



Regulatory

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

Soil Assessment and Analytical Results

On December 7, 2010, Tetra Tech personnel inspected and sampled the spill area. Six auger holes (AH-1 through AH-6) 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 locations are shown on Figure 3.

Referring to Table 1, all submitted samples were below the RRAL for TPH and BTEX. Elevated chloride concentrations were detected in the majority of the auger holes. Auger hole (AH-1) did not show chloride impact to the soils. The areas of AH-5 and AH-6 showed a shallow impact to the soils, which were vertically defined at 1.0' and 4.0', respectively. The remaining auger holes (AH-2, AH-3 and AH-4) showed chloride impact which was not vertically defined.

In order to define the chloride impact, boreholes were proposed in the areas of AH-2, AH-3 and AH-4. The area of AH-2 was not drilled due to an overhead power line. Based on the proximity of AH-3, the data from AH-3 will be utilized for the area of AH-2. On December 7, 2011, Tetra Tech personnel supervised the installation of two (2) boreholes (BH-1 and BH-2) utilizing an air rotary rig. The results of the sampling are summarized in Table 1. The borehole locations are shown on Figure 3.

Referring to Table 1, a deeper chloride impact was encountered in the areas of BH-1 and BH-2. In the area of borehole (BH-1), the chloride concentration spiked at 15.0' with a concentrations of 13,500 mg/kg, which declined with depth to 226 mg/kg at 60.0' below surface. In addition, borehole (BH-2) spiked at 7.0' with a concentration of 13,300 mg/kg and declined with depth to <200 mg/kg at 70.0' below surface.



TETRA TECH

Site Remediation and Conclusion

On September 6 through September 16, 2013, Tetra Tech personnel supervised the excavation of the impacted soils. The excavated depths are highlighted in Table 1 and shown on Figure 4. The remediation was performed according to the approved work plan. To remove the elevated chloride impact, the areas of AH-2 and AH-3 (BH-2) and AH-4 (BH-1) were excavated to depths of approximately 7.0' and 4.0' below surface, respectively. The area of AH-5 was excavated to 1.0' below surface and the 4.5' in the area of AH-6.

Once excavated to the appropriate depths, Tetra Tech collected confirmation samples from the excavation bottoms and sidewalls. The sampling dates were incorrectly recorded on the original chain of custody and the laboratory reports were revised to the correct sampling date. The confirmation sample results are included in Table 1. The revised laboratory analytical reports are presented in Appendix C.

Once approved by the BLM, the excavated areas of AH-2, AH-3 (BH-2) and AH-4 (BH-1) were capped with a 40 mil liner at approximately 4.0' below surface and backfilled with clean soil to grade. Approximately 1,252 cubic yards of soil were removed and transported to the R360 facility for proper disposal.

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

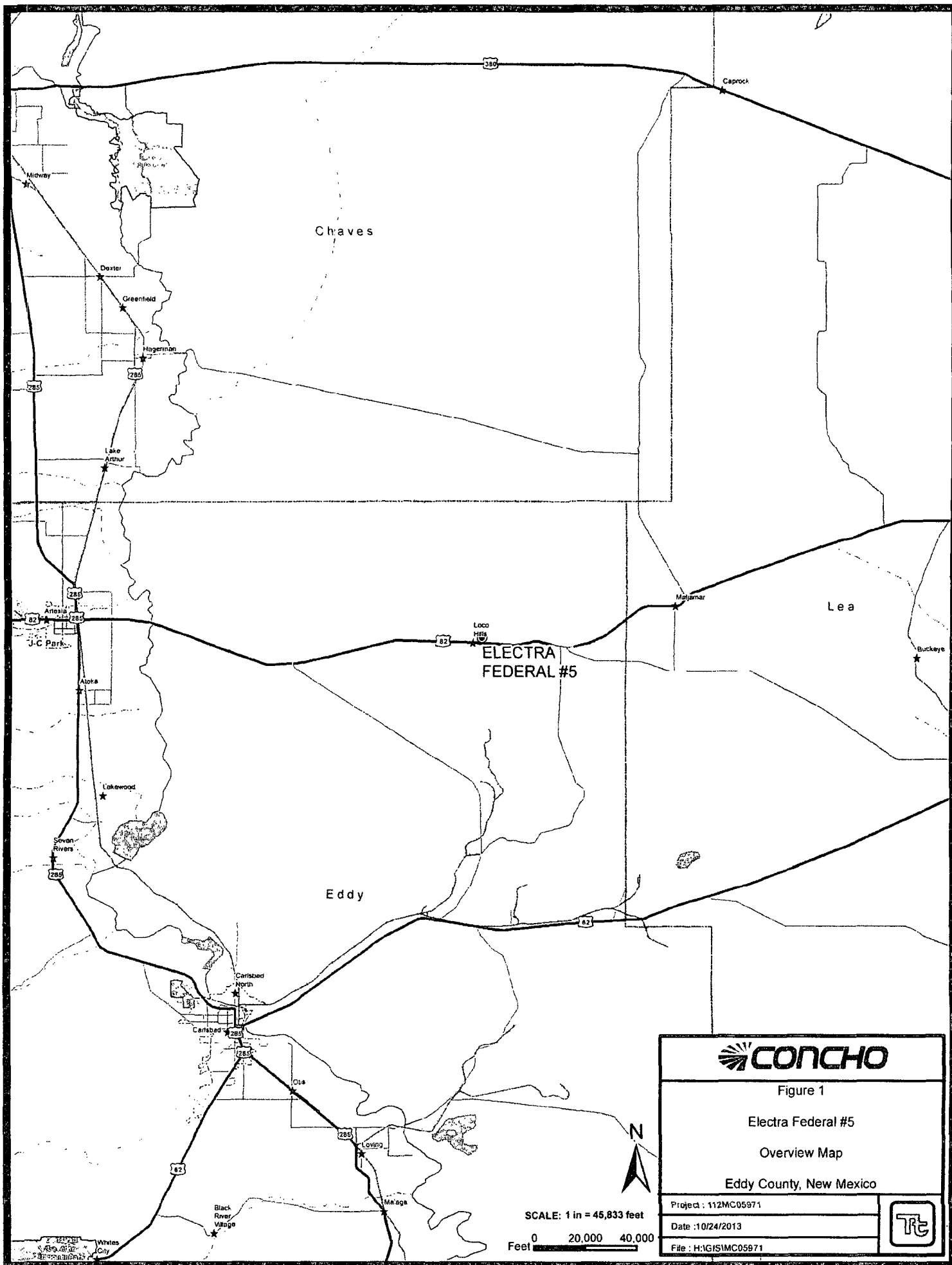
Respectfully submitted,
TETRA TECH

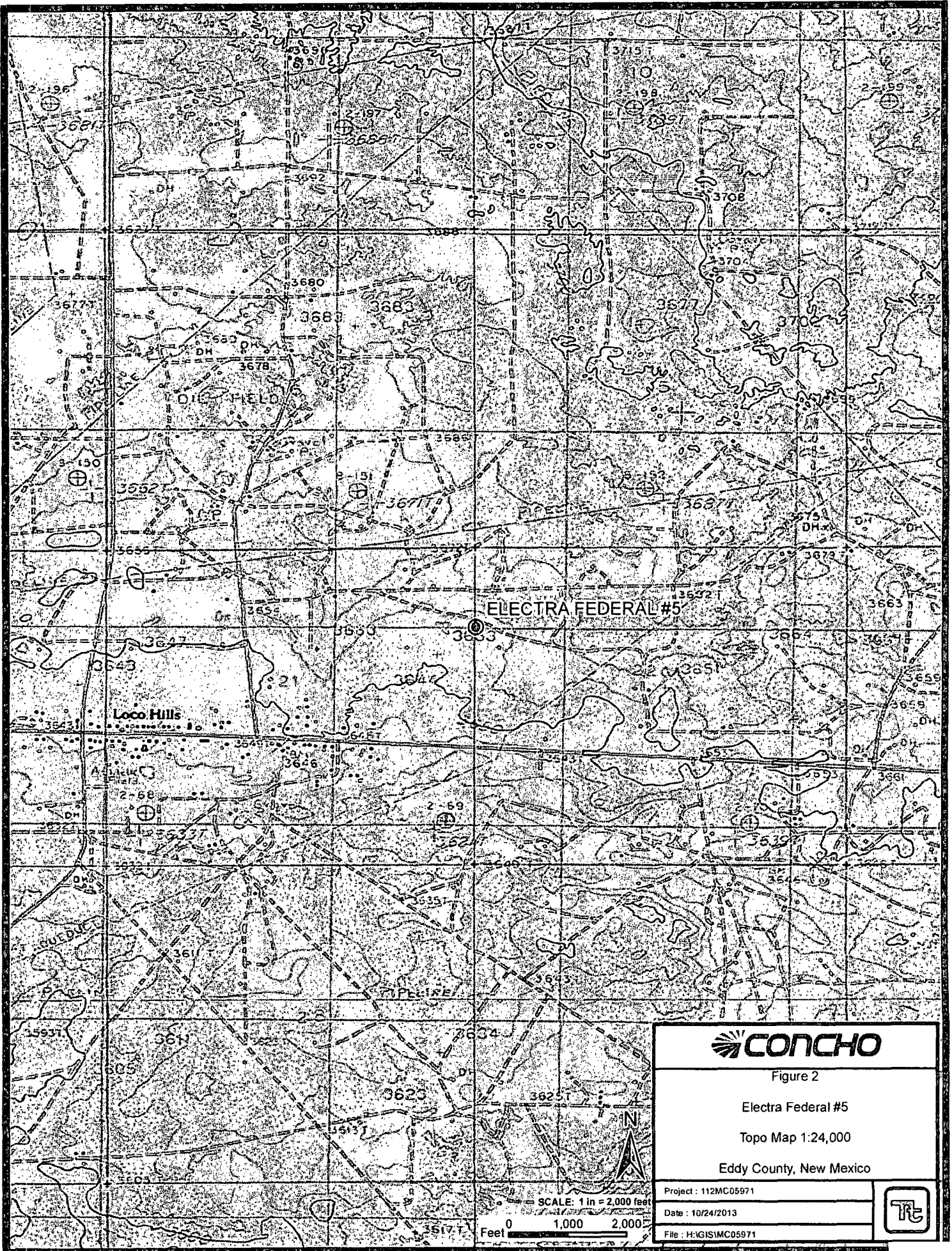


Ike Tavaréz, PG
Project Manager

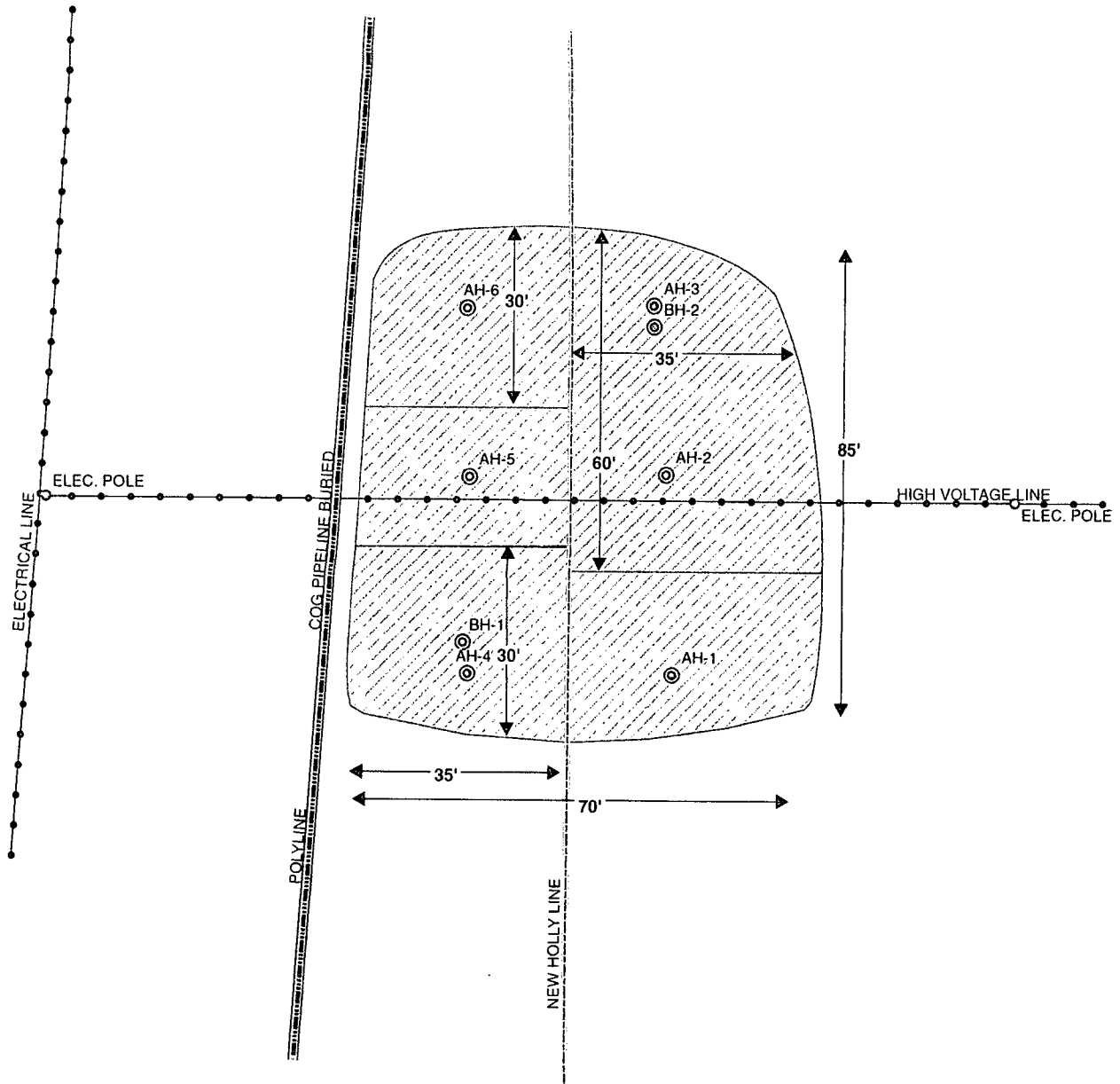
cc: Robert McNeill – COG
cc: Mike Burton - BLM

Figures





TWO TRACK ROAD



EXPLANATION

- ⊙ AUGER HOLE SAMPLE LOCATIONS
- ⊙ BORE HOLE SAMPLE LOCATIONS
- ELEC. POLE
- COG PIPELINE BURIED
- ELECTRICAL LINE
- HIGH VOLTAGE LINE
- NEW HOLLY LINE
- POLYLINE
- ▨ SPILL AREA



Figure 3

Electra Federal #5

Spill Assessment Map

Eddy County, New Mexico

Project : 112MC05971

Date : 10/24/2013

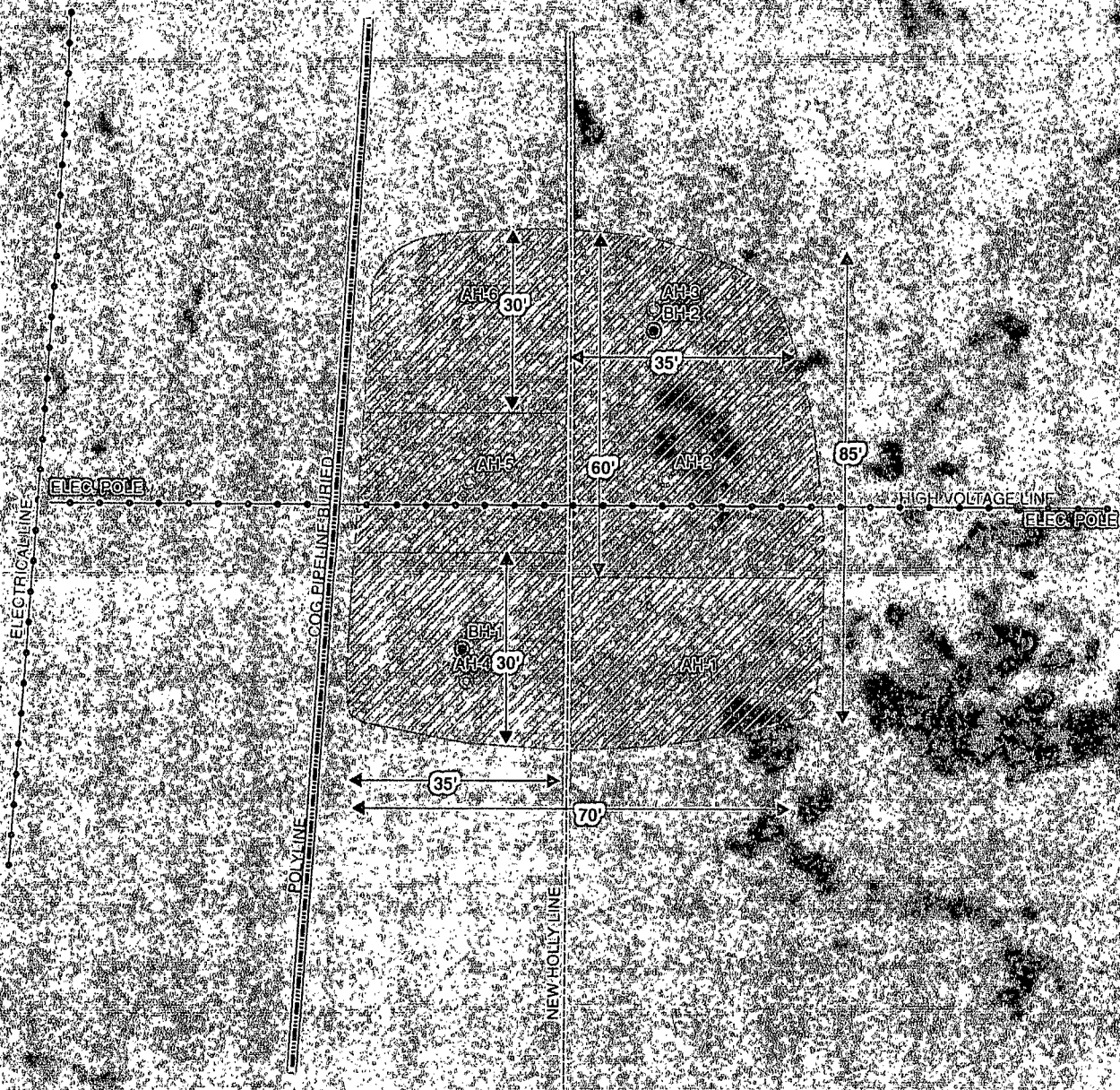
File : H:\GIS\MC05971



SCALE: 1 IN = 30 FEET

Feet 0 20 40

TWO TRACK ROAD



EXPLANATION

- ⊙ AUGER HOLE SAMPLE LOCATIONS
- ⊙ BORE HOLE SAMPLE LOCATIONS
- ELEC. POLE
- COG PIPELINE BURIED
- ELECTRICAL LINE
- HIGH VOLTAGE LINE
- NEW HOLLY LINE
- == POLYLINE
- ▨ SPILL AREA



Figure 3

Electra Federal #5

Spill Assessment Map

Eddy County, New Mexico

Project : 112MC05971

Date : 10/24/2013

File : H:\GIS\MC05971

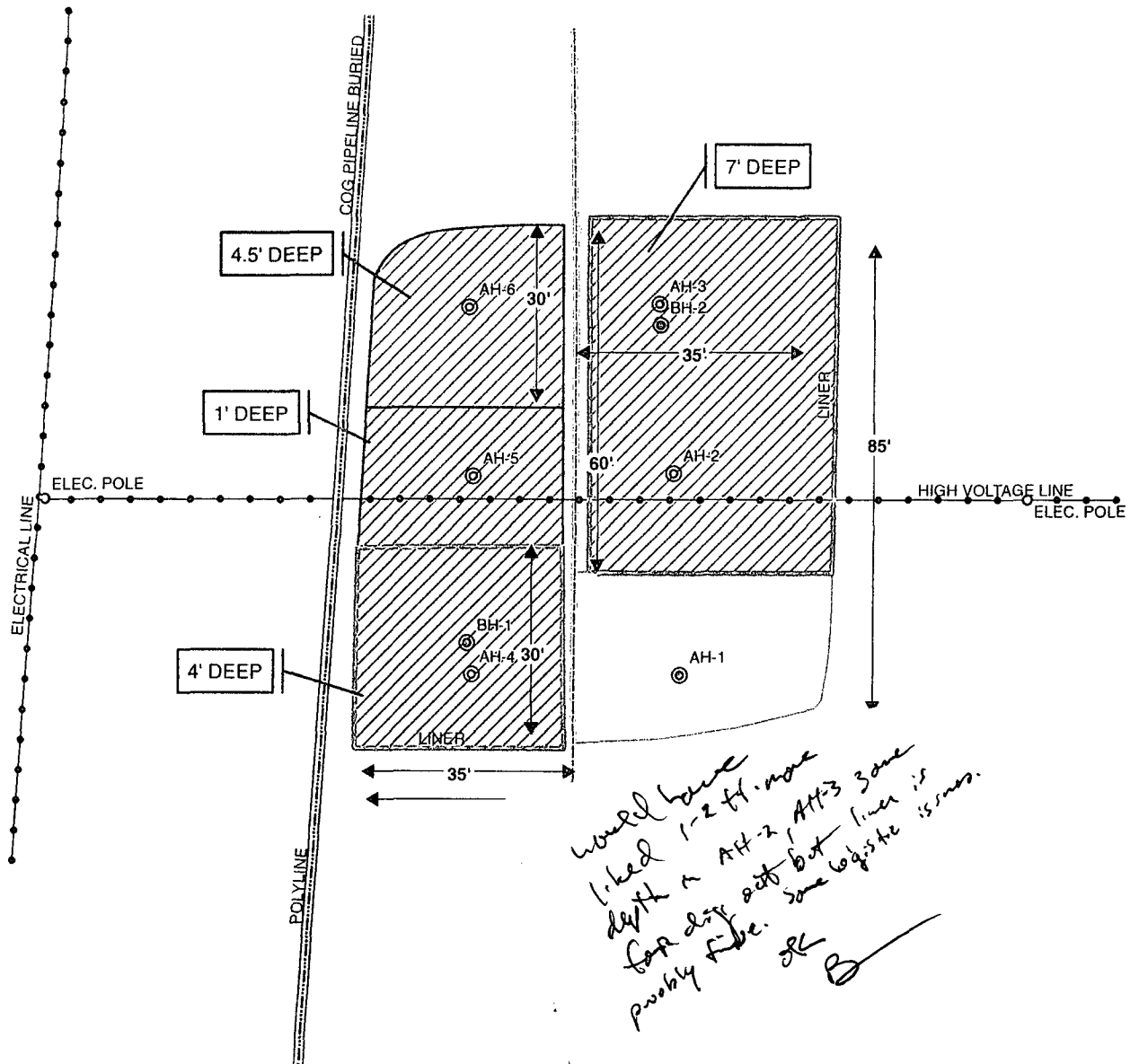


SCALE: 1" = 30' FEET

Feet 0 20 40



TWO TRACK ROAD



EXPLANATION

- ⊙ AUGER HOLE SAMPLE LOCATIONS
- ⊙ BORE HOLE SAMPLE LOCATIONS
- ELEC. POLE
- INSTALLED LINER
- COG PIPELINE BURIED
- ELECTRICAL LINE
- HIGH VOLTAGE LINE
- NEW HOLLY LINE
- POLYLINE
- ▨ EXCAVATION DEPTHS

Electra Federal #5

Excavation Depths

Eddy County, New Mexico

Project : 112MC05971

Date : 10/24/2013

File : H:\GIS\MC05971

SCALE: 1 IN = 30 FEET

Feet 0 10 20



Tables

Table 1
COG Operating LLC.

[illegible]

Table 1
COG Operating LLC.

[illegible]

Table 1
COG Operating LLC.
Electra Federal #5
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-4	12/7/2010	0-1'			X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	744
	"	1-1.5'			X	-	-	-	-	-	-	-	1,070
	"	2-2.5'			X	-	-	-	-	-	-	-	2,810
	"	3-3.5'			X	-	-	-	-	-	-	-	5,370
Liner	"	4-4.5'			X	-	-	-	-	-	-	-	5,040
	"	5-5.5'		X		-	-	-	-	-	-	-	5,190
	9/12/2013	South SW	-	X		-	-	-	-	-	-	-	266
	9/12/2013	East SW	-	X		-	-	-	-	-	-	-	591
	9/12/2013	West SW	-	X		-	-	-	-	-	-	-	205
	9/10/2013	Bottom hole	4	X		-	-	-	-	-	-	-	656
BH-1	11/4/2011	0-1'			X								791
	"	3'			X								461
	"	5'	-	X		-	-	-	-	-	-	-	2,470
	"	7'	-	X		-	-	-	-	-	-	-	3,980
	"	10'	-	X		-	-	-	-	-	-	-	9,370
	"	15'	-	X		-	-	-	-	-	-	-	13,500
	"	20'	-	X		-	-	-	-	-	-	-	4,340
	"	25'	-	X		-	-	-	-	-	-	-	6,340
	"	30'	-	X		-	-	-	-	-	-	-	8,880
	"	40'	-	X		-	-	-	-	-	-	-	507
	"	50'	-	X		-	-	-	-	-	-	-	1,100
	"	60'	-	X		-	-	-	-	-	-	-	226

Table 1
COG Operating LLC.
Electra Federal #5
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-5	12/7/2010	0-1'			X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	1,710
	"	1-1.5'		X		-	-	-	-	-	-	-	<200
	"	2-2.5'		X		-	-	-	-	-	-	-	<200
	"	3-3.5'		X		-	-	-	-	-	-	-	<200
	"	4-4.5'		X		-	-	-	-	-	-	-	380
	"	5-5.5'		X		-	-	-	-	-	-	-	290
	9/10/2013	East SW	-		X	-	-	-	-	-	-	-	135
	9/11/2013	West SW	-		X	-	-	-	-	-	-	-	406
	9/10/2013	Bottom hole	1		X	-	-	-	-	-	-	-	75.2
AH-6	12/7/2010	0-1'			X	<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	5,870
		1-1.5'			X	-	-	-	-	-	-	-	7,710
		2-2.5'			X	-	-	-	-	-	-	-	4,840
		3-3.5'			X	-	-	-	-	-	-	-	3,440
		4-4.5'			X	-	-	-	-	-	-	-	874
		5-5.5'		X		-	-	-	-	-	-	-	245
	9/10/2013	North SW	-	X		-	-	-	-	-	-	-	30.1
	9/10/2013	West SW	-	X		-	-	-	-	-	-	-	146
	9/10/2013	East SW	-	X		-	-	-	-	-	-	-	186
	9/13/2013	Bottom hole	4.5	X		-	-	-	-	-	-	-	170

BEB Below Excavation Bottom

(--) Not Analyzed

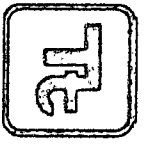


Excavation Depth

40 Mil Liner Installation

Photos

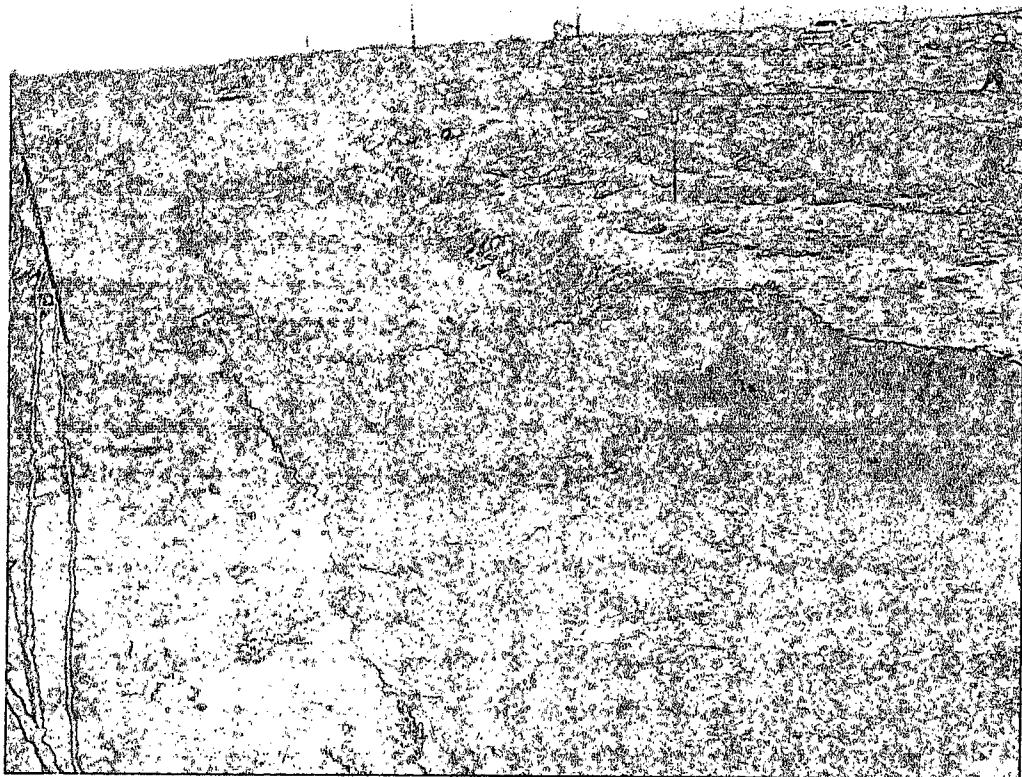
COG Operating LLC
Electra Federal #5
Eddy County, New Mexico



TETRA TECH

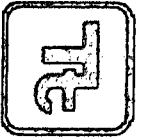


View North – Excavation Area of AH-4, AH-5 and AH-6

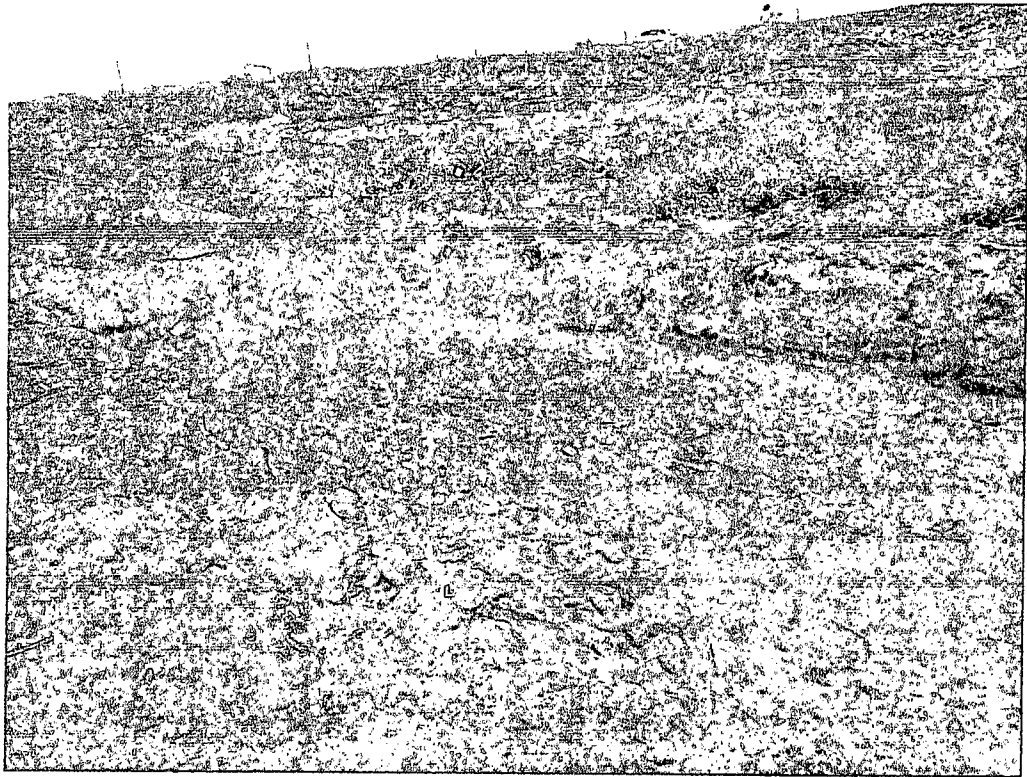


View Northeast – Excavation Area of AH-4, AH-5 and AH-6

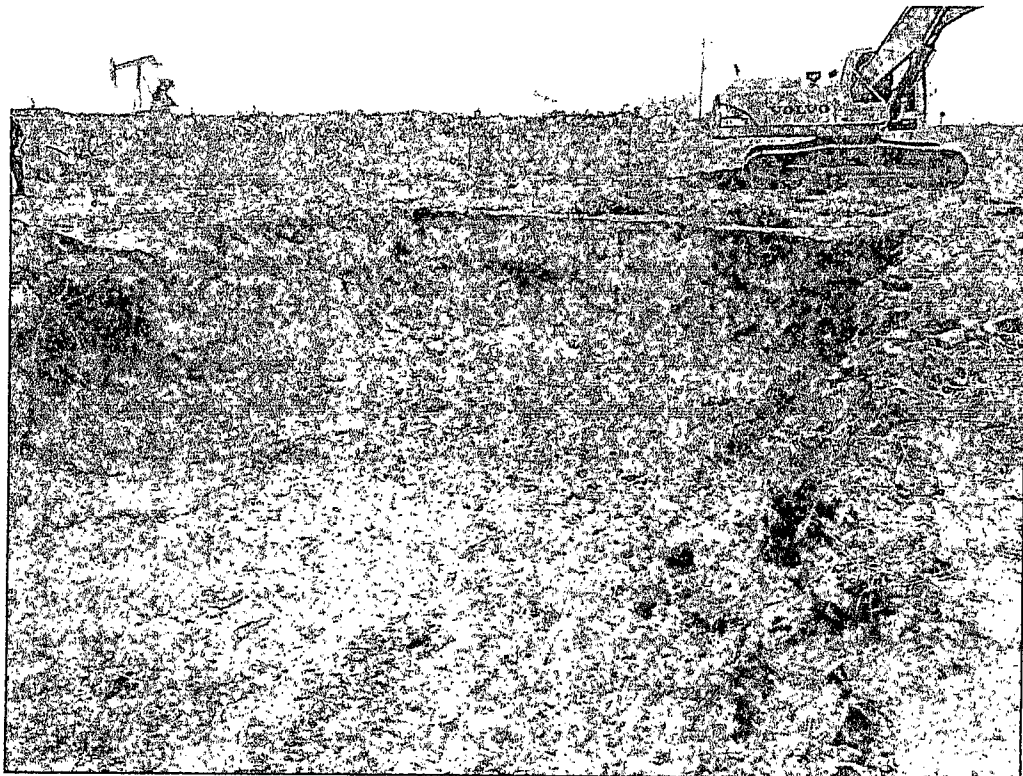
COG Operating LLC
Electra Federal #5
Eddy County, New Mexico



TETRA TECH



View Northeast – Excavation Area of AH-6

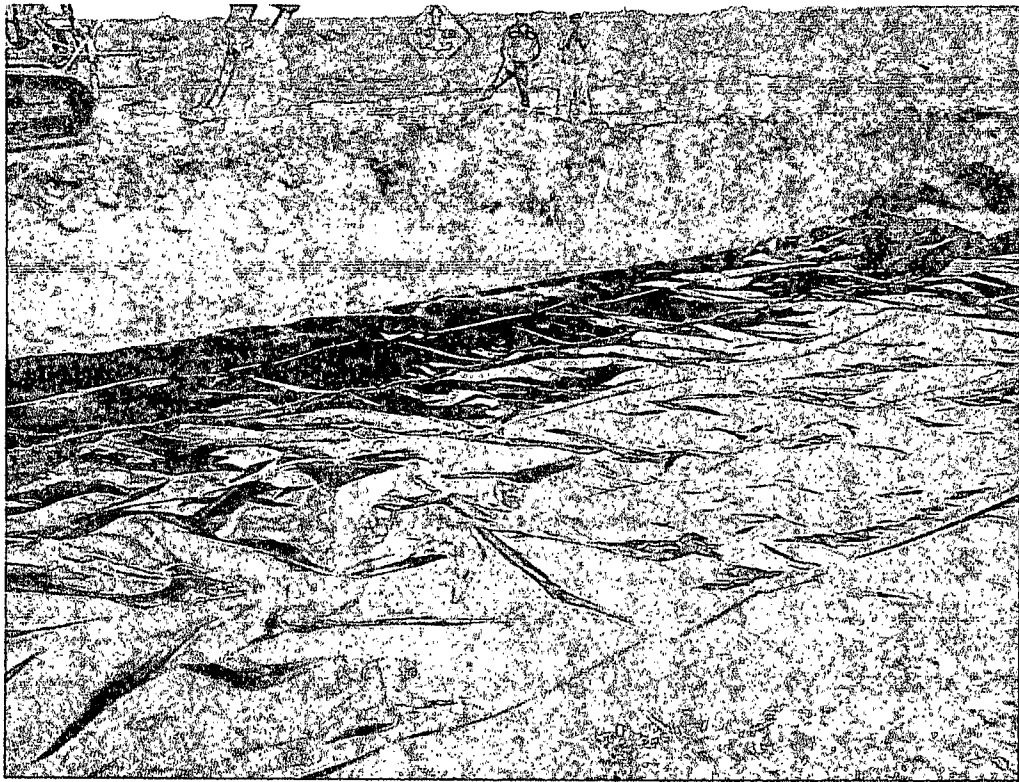


View Northwest – Excavation Area of AH-2 and AH-3

COG Operating LLC
Electra Federal #5
Eddy County, New Mexico



TETRA TECH



View Southeast –Excavation Area of AH-2 and AH-3 with
the Liner



View East – Excavation Area of AH-4 with the Liner

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	600 West Illinois Avenue, Midland, Texas 79701	Telephone No.	(432) 230-0077
Facility Name	Electra Federal #5	Facility Type	4" Water Line
Surface Owner: Federal		Mineral Owner	Lease No. NMNM-074935 (API#) 30-015-34211

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	21	17S	30E					Eddy

Latitude 32.49413 Longitude 103.58116

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 30 bbls	Volume Recovered 25 bbls	
Source of Release: 4" Electra Federal #5 Water Line	Date and Hour of Occurrence 11/03/2010	Date and Hour of Discovery 11/03/2010 1:40 p.m.	
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - OCD		
By Whom? Josh Russo	Date and Hour 11/04/2010 6:25 p.m.	RECEIVED NOV 07 2013 NMOCD ARTESIA	
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.* As Ferguson was moving the COG 4" poly line so they could trench for the installation of a buried line, they broke the COG 4" poly line. The 4" poly line has been refused and put back into service.			
Describe Area Affected and Cleanup Action Taken.* Tetra Tech personnel inspected the site and collected samples to define the extent of the spill. 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 (agent for COG)		Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:	
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐	
Date: 10/28/13 Phone: (432) 682-4559			

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
Electra #5 Water Line Leak
Eddy County, New Mexico

16 South 29 East					
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 220	13
19	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
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

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

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

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

123 Tetra Tech installed temporary wells and field water level

143 NMOCD Groundwater map well location

Appendix C

Summary Report

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

Report Date: December 15, 2010

Work Order: 10121026



Project Location: Eddy Co., NM
Project Name: COG/Electra Federal #5
Project Number: 114-6400741

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252900	AH-1 0-1'	soil	2010-12-07	00:00	2010-12-10
252901	AH-1 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252902	AH-1 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252903	AH-1 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252904	AH-2 0-1'	soil	2010-12-07	00:00	2010-12-10
252905	AH-2 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252906	AH-2 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252907	AH-2 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252908	AH-2 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252909	AH-2 5-5.5'	soil	2010-12-07	00:00	2010-12-10
252910	AH-3 0-1'	soil	2010-12-07	00:00	2010-12-10
252911	AH-3 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252912	AH-3 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252913	AH-3 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252914	AH-3 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252915	AH-4 0-1'	soil	2010-12-07	00:00	2010-12-10
252916	AH-4 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252917	AH-4 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252918	AH-4 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252919	AH-4 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252920	AH-4 5-5.5'	soil	2010-12-07	00:00	2010-12-10
252921	AH-5 0-1'	soil	2010-12-07	00:00	2010-12-10
252922	AH-5 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252923	AH-5 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252924	AH-5 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252925	AH-5 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252926	AH-5 5-5.5'	soil	2010-12-07	00:00	2010-12-10
252927	AH-6 0-1'	soil	2010-12-07	00:00	2010-12-10
252928	AH-6 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252929	AH-6 2-2.5'	soil	2010-12-07	00:00	2010-12-10

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252930	AH-6 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252931	AH-6 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252932	AH-6 5-5.5'	soil	2010-12-07	00:00	2010-12-10

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
252900 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	662	<2.00
252904 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
252910 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	3.94
252915 - AH-4 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
252921 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
252927 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

Sample: 252900 - AH-1 0-1'

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

Sample: 252901 - AH-1 1-1.5'

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

Sample: 252902 - AH-1 2-2.5'

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

Sample: 252903 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		630	mg/Kg	4.00

Sample: 252904 - AH-2 0-1'

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

Sample: 252905 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		434	mg/Kg	4.00

Sample: 252906 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		1480	mg/Kg	4.00

Sample: 252907 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1350	mg/Kg	4.00

Sample: 252908 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		2360	mg/Kg	4.00

Sample: 252909 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		8130	mg/Kg	4.00

Sample: 252910 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		389	mg/Kg	4.00

Sample: 252911 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		489	mg/Kg	4.00

Sample: 252912 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		2350	mg/Kg	4.00

Sample: 252913 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		14900	mg/Kg	4.00

Sample: 252914 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		14800	mg/Kg	4.00

Sample: 252915 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		744	mg/Kg	4.00

Sample: 252916 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		1070	mg/Kg	4.00

Sample: 252917 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		2810	mg/Kg	4.00

Sample: 252918 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		5370	mg/Kg	4.00

Sample: 252919 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		5040	mg/Kg	4.00

Sample: 252920 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		5190	mg/Kg	4.00

Sample: 252921 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		1710	mg/Kg	4.00

Sample: 252922 - AH-5 1-1.5'

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

Sample: 252923 - AH-5 2-2.5'

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

Sample: 252924 - AH-5 3-3.5'

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

Sample: 252925 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		380	mg/Kg	4.00

Sample: 252926 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		290	mg/Kg	4.00

Sample: 252927 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		5870	mg/Kg	4.00

Sample: 252928 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		7710	mg/Kg	4.00

Sample: 252929 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		4840	mg/Kg	4.00

Sample: 252930 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		3440	mg/Kg	4.00

Sample: 252931 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		874	mg/Kg	4.00

Sample: 252932 - AH-6 5-5.5'

Param	Flag	Result	Units	RL
Chloride		245	mg/Kg	4.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: December 15, 2010

Work Order: 10121026



Project Location: Eddy Co., NM
Project Name: COG/Electra Federal #5
Project Number: 114-6400741

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
252900	AH-1 0-1'	soil	2010-12-07	00:00	2010-12-10
252901	AH-1 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252902	AH-1 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252903	AH-1 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252904	AH-2 0-1'	soil	2010-12-07	00:00	2010-12-10
252905	AH-2 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252906	AH-2 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252907	AH-2 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252908	AH-2 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252909	AH-2 5-5.5'	soil	2010-12-07	00:00	2010-12-10

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252910	AH-3 0-1'	soil	2010-12-07	00:00	2010-12-10
252911	AH-3 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252912	AH-3 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252913	AH-3 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252914	AH-3 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252915	AH-4 0-1'	soil	2010-12-07	00:00	2010-12-10
252916	AH-4 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252917	AH-4 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252918	AH-4 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252919	AH-4 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252920	AH-4 5-5.5'	soil	2010-12-07	00:00	2010-12-10
252921	AH-5 0-1'	soil	2010-12-07	00:00	2010-12-10
252922	AH-5 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252923	AH-5 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252924	AH-5 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252925	AH-5 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252926	AH-5 5-5.5'	soil	2010-12-07	00:00	2010-12-10
252927	AH-6 0-1'	soil	2010-12-07	00:00	2010-12-10
252928	AH-6 1-1.5'	soil	2010-12-07	00:00	2010-12-10
252929	AH-6 2-2.5'	soil	2010-12-07	00:00	2010-12-10
252930	AH-6 3-3.5'	soil	2010-12-07	00:00	2010-12-10
252931	AH-6 4-4.5'	soil	2010-12-07	00:00	2010-12-10
252932	AH-6 5-5.5'	soil	2010-12-07	00:00	2010-12-10

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 31 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project COG/Electra Federal #5 were received by TraceAnalysis, Inc. on 2010-12-10 and assigned to work order 10121026. Samples for work order 10121026 were received intact at a temperature of 3.6 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	65313	2010-12-14 at 10:54	76151	2010-12-14 at 12:48
Chloride (Titration)	SM 4500-Cl B	65250	2010-12-13 at 10:17	76124	2010-12-14 at 12:57
Chloride (Titration)	SM 4500-Cl B	65250	2010-12-13 at 10:17	76125	2010-12-14 at 12:58
Chloride (Titration)	SM 4500-Cl B	65250	2010-12-13 at 10:17	76126	2010-12-14 at 12:59
Chloride (Titration)	SM 4500-Cl B	65250	2010-12-13 at 10:17	76127	2010-12-14 at 12:59
TPH DRO - NEW	S 8015 D	65320	2010-12-14 at 09:15	76161	2010-12-14 at 09:15
TPH DRO - NEW	S 8015 D	65321	2010-12-14 at 09:15	76162	2010-12-14 at 09:15
TPH GRO	S 8015 D	65313	2010-12-14 at 10:54	76152	2010-12-14 at 12:48

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 10121026 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 4 of 31
Eddy Co., NM

Analytical Report

Sample: 252900 - AH-1 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 76151

Prep Batch: 65313

Analytical Method: S 8021B

Date Analyzed: 2010-12-14

Sample Preparation: 2010-12-14

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.11	mg/Kg	1	2.00	106	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.23	mg/Kg	1	2.00	112	38.4 - 157

Sample: 252900 - AH-1 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 76124

Prep Batch: 65250

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-12-14

Sample Preparation: 2010-12-13

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

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

Sample: 252900 - AH-1 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 76161

Prep Batch: 65320

Analytical Method: S 8015 D

Date Analyzed: 2010-12-14

Sample Preparation: 2010-12-14

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		662	mg/Kg	1	50.0

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 5 of 31
Eddy Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	200	mg/Kg	1	100	200	70 - 130

Sample: 252900 - AH-1 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 76152 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 Sample Preparation: 2010-12-14 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.34	mg/Kg	1	2.00	117	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.23	mg/Kg	1	2.00	112	42 - 159

Sample: 252901 - AH-1 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 Sample Preparation: 2010-12-13 Prepared By: AR

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

Sample: 252902 - AH-1 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 Sample Preparation: 2010-12-13 Prepared By: AR

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

¹ High surrogate recovery due to peak interference.

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 6 of 31
Eddy Co., NM

Sample: 252903 - AH-1 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76124	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		630	mg/Kg	50	4.00

Sample: 252904 - AH-2 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-12-14	Analyzed By:	ME
QC Batch:	76151	Sample Preparation:	2010-12-14	Prepared By:	ME
Prep Batch:	65313				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.16	mg/Kg	1	2.00	108	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.34	mg/Kg	1	2.00	117	38.4 - 157

Sample: 252904 - AH-2 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

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

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 7 of 31
Eddy Co., NM

Sample: 252904 - AH-2 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-12-14	Analyzed By:	kg
QC Batch:	76161	Sample Preparation:	2010-12-14	Prepared By:	kg
Prep Batch:	65320				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		105	mg/Kg	1	100	105	70 - 130

Sample: 252904 - AH-2 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-12-14	Analyzed By:	ME
QC Batch:	76152	Sample Preparation:	2010-12-14	Prepared By:	ME
Prep Batch:	65313				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.38	mg/Kg	1	2.00	119	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.35	mg/Kg	1	2.00	118	42 - 159

Sample: 252905 - AH-2 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		434	mg/Kg	50	4.00

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 8 of 31
Eddy Co., NM

Sample: 252906 - AH-2 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1480	mg/Kg	100	4.00

Sample: 252907 - AH-2 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1350	mg/Kg	100	4.00

Sample: 252908 - AH-2 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2360	mg/Kg	100	4.00

Sample: 252909 - AH-2 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8130	mg/Kg	100	4.00

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 9 of 31
Eddy Co., NM

Sample: 252910 - AH-3 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 76151

Prep Batch: 65313

Analytical Method: S 8021B

Date Analyzed: 2010-12-14

Sample Preparation: 2010-12-14

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.19	mg/Kg	1	2.00	110	38.4 - 157

Sample: 252910 - AH-3 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 76125

Prep Batch: 65250

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-12-14

Sample Preparation: 2010-12-13

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		389	mg/Kg	50	4.00

Sample: 252910 - AH-3 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 76161

Prep Batch: 65320

Analytical Method: S 8015 D

Date Analyzed: 2010-12-14

Sample Preparation: 2010-12-14

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		128	mg/Kg	1	100	128	70 - 130

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 10 of 31
Eddy Co., NM

Sample: 252910 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-12-14	Analyzed By:	ME
QC Batch:	76152	Sample Preparation:	2010-12-14	Prepared By:	ME
Prep Batch:	65313				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3.94	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.45	mg/Kg	1	2.00	122	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.77	mg/Kg	1	2.00	138	42 - 159

Sample: 252911 - AH-3 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		489	mg/Kg	50	4.00

Sample: 252912 - AH-3 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2350	mg/Kg	100	4.00

Sample: 252913 - AH-3 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76125	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 11 of 31
Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14900	mg/Kg	100	4.00

Sample: 252914 - AH-3 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 76126 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 Sample Preparation: 2010-12-13 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14800	mg/Kg	100	4.00

Sample: 252915 - AH-4 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 76151 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 Sample Preparation: 2010-12-14 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.29	mg/Kg	1	2.00	114	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.40	mg/Kg	1	2.00	120	38.4 - 157

Sample: 252915 - AH-4 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 76126 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 Sample Preparation: 2010-12-13 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		744	mg/Kg	50	4.00

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 12 of 31
Eddy Co., NM

Sample: 252915 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-12-14	Analyzed By:	kg
QC Batch:	76162	Sample Preparation:	2010-12-14	Prepared By:	kg
Prep Batch:	65321				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		106	mg/Kg	1	100	106	70 - 130

Sample: 252915 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-12-14	Analyzed By:	ME
QC Batch:	76152	Sample Preparation:	2010-12-14	Prepared By:	ME
Prep Batch:	65313				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.48	mg/Kg	1	2.00	124	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.39	mg/Kg	1	2.00	120	42 - 159

Sample: 252916 - AH-4 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76126	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1070	mg/Kg	100	4.00

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 13 of 31
Eddy Co., NM

Sample: 252917 - AH-4 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76126	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2810	mg/Kg	100	4.00

Sample: 252918 - AH-4 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76126	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5370	mg/Kg	100	4.00

Sample: 252919 - AH-4 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76126	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5040	mg/Kg	100	4.00

Sample: 252920 - AH-4 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76126	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5190	mg/Kg	100	4.00

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 14 of 31
Eddy Co., NM

Sample: 252921 - AH-5 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 76151
Prep Batch: 65313

Analytical Method: S 8021B
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-14

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.16	mg/Kg	1	2.00	108	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.31	mg/Kg	1	2.00	116	38.4 - 157

Sample: 252921 - AH-5 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 76126
Prep Batch: 65250

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-13

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1710	mg/Kg	100	4.00

Sample: 252921 - AH-5 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 76162
Prep Batch: 65321

Analytical Method: S 8015 D
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-14

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		113	mg/Kg	1	100	113	70 - 130

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 15 of 31
Eddy Co., NM

Sample: 252921 - AH-5 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 76152
Prep Batch: 65313

Analytical Method: S 8015 D
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-14

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.36	mg/Kg	1	2.00	118	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.30	mg/Kg	1	2.00	115	42 - 159

Sample: 252922 - AH-5 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 76126
Prep Batch: 65250

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-13

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

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

Sample: 252923 - AH-5 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 76126
Prep Batch: 65250

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-13

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

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

Sample: 252924 - AH-5 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 76127
Prep Batch: 65250

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-12-14
Sample Preparation: 2010-12-13

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

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 16 of 31
Eddy Co., NM

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

Sample: 252925 - AH-5 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 76127 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 Sample Preparation: 2010-12-13 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		380	mg/Kg	50	4.00

Sample: 252926 - AH-5 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 76127 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 Sample Preparation: 2010-12-13 Prepared By: AR

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

Sample: 252927 - AH-6 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 76151 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 Sample Preparation: 2010-12-14 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.34	mg/Kg	1	2.00	117	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.44	mg/Kg	1	2.00	122	38.4 - 157

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 17 of 31
Eddy Co., NM

Sample: 252927 - AH-6 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76127	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5870	mg/Kg	100	4.00

Sample: 252927 - AH-6 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-12-14	Analyzed By:	kg
QC Batch:	76162	Sample Preparation:	2010-12-14	Prepared By:	kg
Prep Batch:	65321				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		107	mg/Kg	1	100	107	70 - 130

Sample: 252927 - AH-6 0-1'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-12-14	Analyzed By:	ME
QC Batch:	76152	Sample Preparation:	2010-12-14	Prepared By:	ME
Prep Batch:	65313				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.55	mg/Kg	1	2.00	128	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.44	mg/Kg	1	2.00	122	42 - 159

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 18 of 31
Eddy Co., NM

Sample: 252928 - AH-6 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76127	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7710	mg/Kg	100	4.00

Sample: 252929 - AH-6 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76127	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4840	mg/Kg	100	4.00

Sample: 252930 - AH-6 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76127	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3440	mg/Kg	100	4.00

Sample: 252931 - AH-6 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76127	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		874	mg/Kg	50	4.00

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 19 of 31
Eddy Co., NM

Sample: 252932 - AH-6 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-12-14	Analyzed By:	AR
QC Batch:	76127	Sample Preparation:	2010-12-13	Prepared By:	AR
Prep Batch:	65250				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		245	mg/Kg	50	4.00

Method Blank (1) QC Batch: 76124

QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	QC Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 76125

QC Batch:	76125	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	QC Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 76126

QC Batch:	76126	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	QC Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 20 of 31
Eddy Co., NM

Method Blank (1) QC Batch: 76127

QC Batch: 76127
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 76151

QC Batch: 76151
Prep Batch: 65313

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: ME
Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	66.6 - 122
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	55.4 - 132

Method Blank (1) QC Batch: 76152

QC Batch: 76152
Prep Batch: 65313

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: ME
Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.12	mg/Kg	1	2.00	106	67.6 - 150
4-Bromofluorobenzene (4-BFB)		2.03	mg/Kg	1	2.00	102	52.4 - 130

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 21 of 31
Eddy Co., NM

Method Blank (1) QC Batch: 76161

QC Batch: 76161 Date Analyzed: 2010-12-14 Analyzed By: kg
Prep Batch: 65320 QC Preparation: 2010-12-14 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.6	mg/Kg	1	100	92	70 - 130

Method Blank (1) QC Batch: 76162

QC Batch: 76162 Date Analyzed: 2010-12-14 Analyzed By: kg
Prep Batch: 65321 QC Preparation: 2010-12-14 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

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

Laboratory Control Spike (LCS-1)

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 QC Preparation: 2010-12-13 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.5	mg/Kg	1	100	<2.18	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	6	20

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

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 22 of 31
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 76125
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	95.5	mg/Kg	1	100	<2.18	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115	7	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: 76126
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.2	mg/Kg	1	100	<2.18	97	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	104	mg/Kg	1	100	<2.18	104	85 - 115	7	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: 76127
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.2	mg/Kg	1	100	<2.18	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	104	mg/Kg	1	100	<2.18	104	85 - 115	8	20

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

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 23 of 31
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 76151
Prep Batch: 65313

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.82	mg/Kg	1	2.00	<0.0150	91	81.9 - 108
Toluene	1.80	mg/Kg	1	2.00	<0.00950	90	81.9 - 107
Ethylbenzene	1.82	mg/Kg	1	2.00	<0.0106	91	78.4 - 107
Xylene	5.50	mg/Kg	1	6.00	<0.00930	92	79.1 - 107

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.98	mg/Kg	1	2.00	<0.0150	99	81.9 - 108	8	20
Toluene	1.96	mg/Kg	1	2.00	<0.00950	98	81.9 - 107	8	20
Ethylbenzene	2.00	mg/Kg	1	2.00	<0.0106	100	78.4 - 107	9	20
Xylene	6.03	mg/Kg	1	6.00	<0.00930	100	79.1 - 107	9	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)	1.76	1.76	mg/Kg	1	2.00	88	88	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.94	1.89	mg/Kg	1	2.00	97	94	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 76152
Prep Batch: 65313

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.7	mg/Kg	1	20.0	<1.65	84	69.9 - 95.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.7	mg/Kg	1	20.0	<1.65	84	69.9 - 95.4	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)	2.03	2.04	mg/Kg	1	2.00	102	102	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.02	2.00	mg/Kg	1	2.00	101	100	65.2 - 132

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 24 of 31
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 76161
Prep Batch: 65320

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	192	mg/Kg	1	250	<14.6	77	47.5 - 144.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	214	mg/Kg	1	250	<14.6	86	47.5 - 144.1	11	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	110	124	mg/Kg	1	100	110	124	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 76162
Prep Batch: 65321

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	247	mg/Kg	1	250	<14.6	99	47.5 - 144.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	246	mg/Kg	1	250	<14.6	98	47.5 - 144.1	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
n-Tricosane	122	122	mg/Kg	1	100	122	122	70 - 130

Matrix Spike (MS-1) Spiked Sample: 252903

QC Batch: 76124
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 25 of 31
Eddy Co., NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10900	mg/Kg	100	10000	630	103	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11300	mg/Kg	100	10000	630	107	85 - 115	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: 252913

QC Batch: 76125
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	24300	mg/Kg	100	10000	14900	94	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	25100	mg/Kg	100	10000	14900	102	85 - 115	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: 252923

QC Batch: 76126
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10000	mg/Kg	100	10000	<218	99	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10500	mg/Kg	100	10000	<218	104	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: 252933

QC Batch: 76127
Prep Batch: 65250

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-13

Analyzed By: AR
Prepared By: AR

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 26 of 31
Eddy Co., NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	16300	mg/Kg	100	10000	6580	97	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	16900	mg/Kg	100	10000	6580	103	85 - 115	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: 252958

QC Batch: 76151
Prep Batch: 65313

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.0150	96	80.5 - 112
Toluene	1.94	mg/Kg	1	2.00	<0.00950	97	82.4 - 113
Ethylbenzene	2.02	mg/Kg	1	2.00	<0.0106	101	83.9 - 114
Xylene	6.13	mg/Kg	1	6.00	<0.00930	102	84 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.00	mg/Kg	1	2.00	<0.0150	100	80.5 - 112	4	20
Toluene	2.03	mg/Kg	1	2.00	<0.00950	102	82.4 - 113	4	20
Ethylbenzene	2.10	mg/Kg	1	2.00	<0.0106	105	83.9 - 114	4	20
Xylene	6.38	mg/Kg	1	6.00	<0.00930	106	84 - 114	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.17	2.15	mg/Kg	1	2	108	108	41.3 - 117
4-Bromofluorobenzene (4-BFB)	2.31	2.29	mg/Kg	1	2	116	114	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 253025

QC Batch: 76152
Prep Batch: 65313

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.6	mg/Kg	1	20.0	<1.65	88	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	18.5	mg/Kg	1	20.0	<1.65	92	61.8 - 114	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)	2.40	2.40	mg/Kg	1	2	120	120	50 - 162
4-Bromofluorobenzene (4-BFB)	2.43	2.44	mg/Kg	1	2	122	122	50 - 162

Matrix Spike (MS-1) Spiked Sample: 252939

QC Batch: 76161
Prep Batch: 65320

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	231	mg/Kg	1	250	<14.6	92	11.7 - 152.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	224	mg/Kg	1	250	<14.6	90	11.7 - 152.3	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	124	125	mg/Kg	1	100	124	125	70 - 130

Matrix Spike (MS-1) Spiked Sample: 253106

QC Batch: 76162
Prep Batch: 65321

Date Analyzed: 2010-12-14
QC Preparation: 2010-12-14

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	210	mg/Kg	1	250	<14.6	84	11.7 - 152.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	213	mg/Kg	1	250	<14.6	85	11.7 - 152.3	1	20

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

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 28 of 31
Eddy Co., NM

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	120	124	mg/Kg	1	100	120	124	70 - 130

Standard (ICV-1)

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2010-12-14

Standard (ICV-1)

QC Batch: 76125 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.0	98	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76125 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-12-14

Standard (ICV-1)

QC Batch: 76126 Date Analyzed: 2010-12-14 Analyzed By: AR

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 29 of 31
Eddy Co., NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76126

Date Analyzed: 2010-12-14

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2010-12-14

Standard (ICV-1)

QC Batch: 76127

Date Analyzed: 2010-12-14

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76127

Date Analyzed: 2010-12-14

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76151

Date Analyzed: 2010-12-14

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0965	96	80 - 120	2010-12-14
Toluene		mg/Kg	0.100	0.0970	97	80 - 120	2010-12-14
Ethylbenzene		mg/Kg	0.100	0.0967	97	80 - 120	2010-12-14
Xylene		mg/Kg	0.300	0.295	98	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76151

Date Analyzed: 2010-12-14

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0941	94	80 - 120	2010-12-14
Toluene		mg/Kg	0.100	0.0923	92	80 - 120	2010-12-14
Ethylbenzene		mg/Kg	0.100	0.0889	89	80 - 120	2010-12-14
Xylene		mg/Kg	0.300	0.274	91	80 - 120	2010-12-14

Standard (CCV-1)

QC Batch: 76152

Date Analyzed: 2010-12-14

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76152

Date Analyzed: 2010-12-14

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76161

Date Analyzed: 2010-12-14

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	260	104	80 - 120	2010-12-14

Standard (CCV-3)

QC Batch: 76161

Date Analyzed: 2010-12-14

Analyzed By: kg

Report Date: December 15, 2010
114-6400741

Work Order: 10121026
COG/Electra Federal #5

Page Number: 31 of 31
Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	253	101	80 - 120	2010-12-14

Standard (CCV-4)

QC Batch: 76161

Date Analyzed: 2010-12-14

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	257	103	80 - 120	2010-12-14

Standard (CCV-1)

QC Batch: 76162

Date Analyzed: 2010-12-14

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	255	102	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76162

Date Analyzed: 2010-12-14

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	240	96	80 - 120	2010-12-14

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

PAGE: 1 OF: 4

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:				SITE MANAGER:		NUMBER OF CONTAINERS		PRESERVATIVE METHOD				STEX 8021B TPH 8015 MBD-5 TX1000 PAH 8270 RCRA Metals Ag As Ba Cd TCLP Metals Ag As Ba Cd TCLP Volatiles TCLP Semi Volatiles RCI GC-MS Vol. 8240/8260/824 GC-MS Semi. Vol. 8270/825 PCB's 8060/608 Pest. 808/808 Chloride Gamma Spec. Alpha Beta (Air) PLM (Asbestos) Major Anions/Cations, pH,													
PROJECT NO.:				PROJECT NAME:																					
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE												
114-1400 741						CDE/ Election Federal #5 Ehly Co, NJ																			
252900	12/2		S		X	AN-1 0-1'		1				X		XX											
901						-1 1-1.5'								X											
902						-1 2-2.5'								X											
903						-1 3-3.5'								X											
904						-2 0-1'								XX											
905						-2 1-1.5'								X											
906						-2 2-2.5'								X											
907						-2 3-3.5'								X											
908						-2 4-4.5'								X											
909						-2 5-5.5'								X											
RELINQUISHED BY: (Signature)				Date: 12/10/10		RECEIVED BY: (Signature)				Date: 12/10/10		SAMPLED BY: (Print & Initial)				Date: 12/7/10									
RELINQUISHED BY: (Signature)				Date: 10/30		RECEIVED BY: (Signature)				Date: 10/30		SAMPLE SHIPPED BY: (Circle)				AIRBILL #: 1700									
RELINQUISHED BY: (Signature)				Date: _____		RECEIVED BY: (Signature)				Date: _____		FEDEX ☒ BUS ☐				OTHER: _____									
RELINQUISHED BY: (Signature)				Date: _____		RECEIVED BY: (Signature)				Date: _____		TETRA TECH CONTACT PERSON: _____				Results by: _____									
RECEIVING LABORATORY: _____				ADDRESS: _____		RECEIVED BY: (Signature)				DATE: _____		RUSH Charges Authorized: _____				Yes No									
CITY: _____ STATE: _____ ZIP: _____				CONTACT: _____ PHONE: _____		REMARKS: _____				TIME: _____		_____ 12/10/10													
SAMPLE CONDITION WHEN RECEIVED: _____				3.6°C intact		DATE: _____				TIME: _____		_____ 12/10/10													

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

All tests - Midland

laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.
Run deeper samples, if ~~the~~ Benzene exceeds 10 mg/L or Vol BTEX exceeds 50 mg/L

Xwo #: 10121026

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

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tovar

PROJECT NO.:

114-6400 741

PROJECT NAME:

COG / Electro Prod #5
Ferry Co, TX

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION		NUMBER OF FILTERED (Y)	HCL	HNO3	ICE	NONE	GTTEX 8027B TPH 8045 PAH 8270	RCRA Metals	TCLP Metals	TCLP Volatiles	TCLP Semi	RCI	GC/MS Vol.	GC/MS Semi	PCB's 8080/	Pest. 808/60	Chloride	Gamma Spec	Alpha Beta	PLM (Asbestos)	Major Anion
25290	2014 12/7		S		X	AH-3	0-1'	1			X		XX										X				
911						AH-3	1-1.5'	1															X				
912						AH-3	2-2.5'																X				
913						AH-3	3-3.5'																X				
914						AH-3	4-4.5'																X				
915						AH-4	0-1'						XX										X				
916						AH-4	1-1.5'																X				
917						AH-4	2-2.5'																X				
918						AH-4	3-3.5'																X				
919						AH-4	4-4.5'	X															X				

RELINQUISHED BY: (Signature)

Date:

Time:

Date:

Time:

Date:

Time:

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

Date:

Time:

Date:

Time:

Date:

Time:

SAMPLED BY: (Print & Initial)

Robert G. 6462 J.

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

HAND DELIVERED UPS

TETRA TECH CONTACT PERSON:

Ike Tovar

RUSH Charges

Authorized:

Yes No

Date:

Time:

Date:

Time:

Date:

Time:

Results by:

RUSH Charges

Authorized:

Yes No

RECEIVING LABORATORY:

ADDRESS:

CITY:

CONTACT:

STATE:

ZIP:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

3.6°C intact

REMARKS:

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

Two #: 10121026

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 3 OF: 4

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavaras

PROJECT NO.:

114-6400741

PROJECT NAME:

COG Electric Pool #5

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION		NUMBER OF	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTX 8021B (Y/N)	TX 8015 (Y/N)	PAH 8270 (Y/N)	PCRA Metals (Y/N)	TCLP Metals (Y/N)	TCLP Volatiles (Y/N)	TCLP Semi (Y/N)	RCI (Y/N)	GC/MS Vol. (Y/N)	GC/MS Sem. (Y/N)	PCB's 8080 (Y/N)	Pest. 808/608 (Y/N)	Chloride (Y/N)	Gamma Spec. (Y/N)	Alpha Beta (Y/N)	PLM (Asbestos) (Y/N)	Major Anions (Y/N)
252920	2010																													
921	12/7		S	X		AH-4	5'-5.5'	1				X																		
922						AH-5	0-1'	1							XX															
923						AH-5	1'-1.5'	1																						
924						AH-5	2'-2.5'	1																						
925						AH-5	3'-3.5'	1																						
926						AH-5	4'-4.5'	1																						
927						AH-5	5'-5.5'	1																						
928						AH-6	0-1'	1							XX															
929						AH-6	1'-1.5'	1																						
						AH-6	2'-2.5'	1																						

RELINQUISHED BY: (Signature)

Date: 12/10/10

Time: 1030

RECEIVED BY: (Signature)

Date: 12/10/10

Time: 10:30

SAMPLED BY: (Print & Initial)

Date: 12/7/10

Time: 1210

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

Date: _____

Time: _____

SAMPLE SHIPPED BY: (Circle)

FEDEX

AIRBILL #: _____

RELINQUISHED BY: (Signature)

Date: _____

Time: _____

RECEIVED BY: (Signature)

Date: _____

Time: _____

HAND DELIVERED

UPS

OTHER: _____

RECEIVING LABORATORY:

Address: _____

CITY:

State: TX

ZIP: _____

CONTACT:

Phone: _____

DATE: _____

TIME: _____

RECEIVED BY: (Signature)

Date: _____

Time: _____

TETRA TECH CONTACT PERSON:

Ike Tavaras

Results by:

RUSH Charges

Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

3.6°C in Acet

REMARKS:

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

200 # : 10121026

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 4 OF: 9

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

SITE MANAGER:

PROJECT NO.:

PROJECT NAME:

NUMBER OF CONTAINERS

PRESERVATIVE METHOD

LAB I.D. NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/808

Pent. 808/808

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date: 12/10/10

Time: 1030

RECEIVED BY: (Signature)

Date: 12/10/10

Time: 1030

SAMPLED BY: (Print & Initial)

Date: 12-1-10

Time: 1715

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

FEDEX

BUS

HAND DELIVERED

UPS

OTHER:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

3.6° c intact

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges

Authorized:

Yes

No

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

Summary Report

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

Report Date: November 11, 2011

Work Order: 11110809



Project Location: Eddy Co, NM
Project Name: COG/Electra Federal #5
Project Number: 114-6401049

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
281835	BH-1 0-1'	soil	2011-11-04	00:00	2011-11-08
281836	BH-1 3'	soil	2011-11-04	00:00	2011-11-08
281837	BH-1 5'	soil	2011-11-04	00:00	2011-11-08
281838	BH-1 7'	soil	2011-11-04	00:00	2011-11-08
281839	BH-1 10'	soil	2011-11-04	00:00	2011-11-08
281840	BH-1 15'	soil	2011-11-04	00:00	2011-11-08
281841	BH-1 20'	soil	2011-11-04	00:00	2011-11-08
281842	BH-1 25'	soil	2011-11-04	00:00	2011-11-08
281843	BH-1 30'	soil	2011-11-04	00:00	2011-11-08
281844	BH-1 40'	soil	2011-11-04	00:00	2011-11-08
281845	BH-1 50'	soil	2011-11-04	00:00	2011-11-08
281846	BH-1 60'	soil	2011-11-04	00:00	2011-11-08
281849	BH-2 0-1'	soil	2011-11-04	00:00	2011-11-08
281850	BH-2 3'	soil	2011-11-04	00:00	2011-11-08
281851	BH-2 5'	soil	2011-11-04	00:00	2011-11-08
281852	BH-2 7'	soil	2011-11-04	00:00	2011-11-08
281853	BH-2 10'	soil	2011-11-04	00:00	2011-11-08
281854	BH-2 15'	soil	2011-11-04	00:00	2011-11-08
281855	BH-2 20'	soil	2011-11-04	00:00	2011-11-08
281856	BH-2 25'	soil	2011-11-04	00:00	2011-11-08
281857	BH-2 30'	soil	2011-11-04	00:00	2011-11-08
281858	BH-2 40'	soil	2011-11-04	00:00	2011-11-08
281859	BH-2 50'	soil	2011-11-04	00:00	2011-11-08
281860	BH-2 60'	soil	2011-11-04	00:00	2011-11-08
281861	BH-2 70'	soil	2011-11-04	00:00	2011-11-08

Sample: 281835 - BH-1 0-1'

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

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

Param	Flag	Result	Units	RL
Chloride		791	mg/Kg	4

Sample: 281836 - BH-1 3'

Param	Flag	Result	Units	RL
Chloride		461	mg/Kg	4

Sample: 281837 - BH-1 5'

Param	Flag	Result	Units	RL
Chloride		2470	mg/Kg	4

Sample: 281838 - BH-1 7'

Param	Flag	Result	Units	RL
Chloride		3980	mg/Kg	4

Sample: 281839 - BH-1 10'

Param	Flag	Result	Units	RL
Chloride		9370	mg/Kg	4

Sample: 281840 - BH-1 15'

Param	Flag	Result	Units	RL
Chloride		13500	mg/Kg	4

Sample: 281841 - BH-1 20'

Param	Flag	Result	Units	RL
Chloride		4340	mg/Kg	4

Sample: 281842 - BH-1 25'

Param	Flag	Result	Units	RL
Chloride		6340	mg/Kg	4

Sample: 281843 - BH-1 30'

Param	Flag	Result	Units	RL
Chloride		8880	mg/Kg	4

Sample: 281844 - BH-1 40'

Param	Flag	Result	Units	RL
Chloride		507	mg/Kg	4

Sample: 281845 - BH-1 50'

Param	Flag	Result	Units	RL
Chloride		1100	mg/Kg	4

Sample: 281846 - BH-1 60'

Param	Flag	Result	Units	RL
Chloride		226	mg/Kg	4

Sample: 281849 - BH-2 0-1'

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

Sample: 281850 - BH-2 3'

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

Sample: 281851 - BH-2 5'

Param	Flag	Result	Units	RL
Chloride		12400	mg/Kg	4

Sample: 281852 - BH-2 7'

Param	Flag	Result	Units	RL
Chloride		13300	mg/Kg	4

Sample: 281853 - BH-2 10'

Param	Flag	Result	Units	RL
Chloride		6380	mg/Kg	4

Sample: 281854 - BH-2 15'

Param	Flag	Result	Units	RL
Chloride		8670	mg/Kg	4

Sample: 281855 - BH-2 20'

Param	Flag	Result	Units	RL
Chloride		5850	mg/Kg	4

Sample: 281856 - BH-2 25'

Param	Flag	Result	Units	RL
Chloride		3490	mg/Kg	4

Sample: 281857 - BH-2 30'

Param	Flag	Result	Units	RL
Chloride		535	mg/Kg	4

Sample: 281858 - BH-2 40'

Param	Flag	Result	Units	RL
Chloride		5040	mg/Kg	4

Sample: 281859 - BH-2 50'

Param	Flag	Result	Units	RL
Chloride		1350	mg/Kg	4

Sample: 281860 - BH-2 60'

Param	Flag	Result	Units	RL
Chloride		1130	mg/Kg	4

Sample: 281861 - BH-2 70'

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



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: November 11, 2011

Work Order: 11110809

Project Location: Eddy Co, NM
Project Name: COG/Electra Federal #5
Project Number: 114-6401049

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
281835	BH-1 0-1'	soil	2011-11-04	00:00	2011-11-08
281836	BH-1 3'	soil	2011-11-04	00:00	2011-11-08
281837	BH-1 5'	soil	2011-11-04	00:00	2011-11-08
281838	BH-1 7'	soil	2011-11-04	00:00	2011-11-08
281839	BH-1 10'	soil	2011-11-04	00:00	2011-11-08
281840	BH-1 15'	soil	2011-11-04	00:00	2011-11-08
281841	BH-1 20'	soil	2011-11-04	00:00	2011-11-08
281842	BH-1 25'	soil	2011-11-04	00:00	2011-11-08
281843	BH-1 30'	soil	2011-11-04	00:00	2011-11-08
281844	BH-1 40'	soil	2011-11-04	00:00	2011-11-08
281845	BH-1 50'	soil	2011-11-04	00:00	2011-11-08
281846	BH-1 60'	soil	2011-11-04	00:00	2011-11-08
281849	BH-2 0-1'	soil	2011-11-04	00:00	2011-11-08
281850	BH-2 3'	soil	2011-11-04	00:00	2011-11-08
281851	BH-2 5'	soil	2011-11-04	00:00	2011-11-08
281852	BH-2 7'	soil	2011-11-04	00:00	2011-11-08
281853	BH-2 10'	soil	2011-11-04	00:00	2011-11-08
281854	BH-2 15'	soil	2011-11-04	00:00	2011-11-08

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
281855	BH-2 20'	soil	2011-11-04	00:00	2011-11-08
281856	BH-2 25'	soil	2011-11-04	00:00	2011-11-08
281857	BH-2 30'	soil	2011-11-04	00:00	2011-11-08
281858	BH-2 40'	soil	2011-11-04	00:00	2011-11-08
281859	BH-2 50'	soil	2011-11-04	00:00	2011-11-08
281860	BH-2 60'	soil	2011-11-04	00:00	2011-11-08
281861	BH-2 70'	soil	2011-11-04	00:00	2011-11-08

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 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Report Contents

Case Narrative	5
Analytical Report	6
Sample 281835 (BH-1 0-1')	6
Sample 281836 (BH-1 3')	6
Sample 281837 (BH-1 5')	6
Sample 281838 (BH-1 7')	6
Sample 281839 (BH-1 10')	7
Sample 281840 (BH-1 15')	7
Sample 281841 (BH-1 20')	7
Sample 281842 (BH-1 25')	8
Sample 281843 (BH-1 30')	8
Sample 281844 (BH-1 40')	8
Sample 281845 (BH-1 50')	8
Sample 281846 (BH-1 60')	9
Sample 281849 (BH-2 0-1')	9
Sample 281850 (BH-2 3')	9
Sample 281851 (BH-2 5')	10
Sample 281852 (BH-2 7')	10
Sample 281853 (BH-2 10')	10
Sample 281854 (BH-2 15')	10
Sample 281855 (BH-2 20')	11
Sample 281856 (BH-2 25')	11
Sample 281857 (BH-2 30')	11
Sample 281858 (BH-2 40')	12
Sample 281859 (BH-2 50')	12
Sample 281860 (BH-2 60')	12
Sample 281861 (BH-2 70')	12
Method Blanks	14
QC Batch 86287 - Method Blank (1)	14
QC Batch 86288 - Method Blank (1)	14
QC Batch 86289 - Method Blank (1)	14
Laboratory Control Spikes	15
QC Batch 86287 - LCS (1)	15
QC Batch 86288 - LCS (1)	15
QC Batch 86289 - LCS (1)	15
QC Batch 86287 - MS (1)	16
QC Batch 86288 - MS (1)	16
QC Batch 86289 - MS (1)	16
Calibration Standards	18
QC Batch 86287 - ICV (1)	18
QC Batch 86287 - CCV (1)	18
QC Batch 86288 - ICV (1)	18

QC Batch 86288 - CCV (1)	18
QC Batch 86289 - ICV (1)	18
QC Batch 86289 - CCV (1)	19
Appendix	20
Laboratory Certifications	20
Standard Flags	20
Attachments	20

Case Narrative

Samples for project COG/Electra Federal #5 were received by TraceAnalysis, Inc. on 2011-11-08 and assigned to work order 11110809. Samples for work order 11110809 were received intact at a temperature of 3.4 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	73246	2011-11-09 at 12:08	86287	2011-11-10 at 10:48
Chloride (Titration)	SM 4500-Cl B	73246	2011-11-09 at 12:08	86288	2011-11-10 at 10:48
Chloride (Titration)	SM 4500-Cl B	73246	2011-11-09 at 12:08	86289	2011-11-10 at 10:49

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 11110809 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 6 of 20
Eddy Co, NM

Analytical Report

Sample: 281835 - BH-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86287	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			791	mg/Kg	100	4.00

Sample: 281836 - BH-1 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86287	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			461	mg/Kg	50	4.00

Sample: 281837 - BH-1 5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86287	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			2470	mg/Kg	100	4.00

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 7 of 20
Eddy Co, NM

Sample: 281838 - BH-1 7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86287	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3980	mg/Kg	100	4.00

Sample: 281839 - BH-1 10'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86287	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			9370	mg/Kg	100	4.00

Sample: 281840 - BH-1 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86288	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			13500	mg/Kg	100	4.00

Sample: 281841 - BH-1 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86288	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 8 of 20
Eddy Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4340	mg/Kg	100	4.00

Sample: 281842 - BH-1 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86288	Date Analyzed:	2011-11-10	Analyzed By:	AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			6340	mg/Kg	100	4.00

Sample: 281843 - BH-1 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86288	Date Analyzed:	2011-11-10	Analyzed By:	AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			8880	mg/Kg	100	4.00

Sample: 281844 - BH-1 40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	86288	Date Analyzed:	2011-11-10	Analyzed By:	AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			507	mg/Kg	50	4.00

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 9 of 20
Eddy Co, NM

Sample: 281845 - BH-1 50'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86288	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1100	mg/Kg	100	4.00

Sample: 281846 - BH-1 60'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86288	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			226	mg/Kg	50	4.00

Sample: 281849 - BH-2 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86288	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

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

Sample: 281850 - BH-2 3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86288	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 10 of 20
Eddy Co, NM

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

Sample: 281851 - BH-2 5'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	86288	Date Analyzed:	2011-11-10	Analyzed By: AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			12400	mg/Kg	100	4.00

Sample: 281852 - BH-2 7'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	86289	Date Analyzed:	2011-11-10	Analyzed By: AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			13300	mg/Kg	100	4.00

Sample: 281853 - BH-2 10'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	86289	Date Analyzed:	2011-11-10	Analyzed By: AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			6380	mg/Kg	100	4.00

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 11 of 20
Eddy Co, NM

Sample: 281854 - BH-2 15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86289	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			8670	mg/Kg	100	4.00

Sample: 281855 - BH-2 20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86289	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5850	mg/Kg	100	4.00

Sample: 281856 - BH-2 25'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86289	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3490	mg/Kg	100	4.00

Sample: 281857 - BH-2 30'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-11-10	Analyzed By:	AR
QC Batch:	86289	Sample Preparation:	2011-11-09	Prepared By:	AR
Prep Batch:	73246				

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 12 of 20
Eddy Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			535	mg/Kg	50	4.00

Sample: 281858 - BH-2 40'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	86289	Date Analyzed:	2011-11-10	Analyzed By: AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5040	mg/Kg	100	4.00

Sample: 281859 - BH-2 50'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	86289	Date Analyzed:	2011-11-10	Analyzed By: AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1350	mg/Kg	100	4.00

Sample: 281860 - BH-2 60'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	86289	Date Analyzed:	2011-11-10	Analyzed By: AR
Prep Batch:	73246	Sample Preparation:	2011-11-09	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1130	mg/Kg	100	4.00

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 13 of 20
Eddy Co, NM

Sample: 281861 - BH-2 70'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 86289

Prep Batch: 73246

Analytical Method: SM 4500-Cl B

Date Analyzed: 2011-11-10

Sample Preparation: 2011-11-09

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

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

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 14 of 20
Eddy Co, NM

Method Blanks

Method Blank (1) QC Batch: 86287

QC Batch: 86287 Date Analyzed: 2011-11-10 Analyzed By: AR
Prep Batch: 73246 QC Preparation: 2011-11-09 Prepared By: AR

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

Method Blank (1) QC Batch: 86288

QC Batch: 86288 Date Analyzed: 2011-11-10 Analyzed By: AR
Prep Batch: 73246 QC Preparation: 2011-11-09 Prepared By: AR

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

Method Blank (1) QC Batch: 86289

QC Batch: 86289 Date Analyzed: 2011-11-10 Analyzed By: AR
Prep Batch: 73246 QC Preparation: 2011-11-09 Prepared By: AR

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

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 15 of 20
Eddy Co, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86287
Prep Batch: 73246

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-09

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.5	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			103	mg/Kg	1	100	<3.85	103	85 - 115	6	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 86288
Prep Batch: 73246

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-09

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.6	mg/Kg	1	100	<3.85	97	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			102	mg/Kg	1	100	<3.85	102	85 - 115	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 86289
Prep Batch: 73246

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-09

Analyzed By: AR
Prepared By: AR

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 16 of 20
Eddy Co, NM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.6	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			102	mg/Kg	1	100	<3.85	102	85 - 115	6	20

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

Matrix Spike (MS-1) Spiked Sample: 281839

QC Batch: 86287
Prep Batch: 73246

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-09

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			19600	mg/Kg	100	10000	9670	99	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			20300	mg/Kg	100	10000	9670	109	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: 281851

QC Batch: 86288
Prep Batch: 73246

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-09

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			23200	mg/Kg	100	10000	12400	108	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			24000	mg/Kg	100	10000	12400	116	79.4 - 120.6	3	20

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

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 17 of 20
Eddy Co, NM

Matrix Spike (MS-1) Spiked Sample: 281861

QC Batch: 86289
Prep Batch: 73246

Date Analyzed: 2011-11-10
QC Preparation: 2011-11-09

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10300	mg/Kg	100	10000	<385	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			10600	mg/Kg	100	10000	<385	104	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 (ICV-1)

QC Batch: 86287

Date Analyzed: 2011-11-10

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.2	99	85 - 115	2011-11-10

Standard (CCV-1)

QC Batch: 86287

Date Analyzed: 2011-11-10

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2011-11-10

Standard (ICV-1)

QC Batch: 86288

Date Analyzed: 2011-11-10

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2011-11-10

Standard (CCV-1)

QC Batch: 86288

Date Analyzed: 2011-11-10

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2011-11-10

Report Date: November 11, 2011
114-6401049

Work Order: 11110809
COG/Electra Federal #5

Page Number: 19 of 20
Eddy Co, NM

Standard (ICV-1)

QC Batch: 86289

Date Analyzed: 2011-11-10

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2011-11-10

Standard (CCV-1)

QC Batch: 86289

Date Analyzed: 2011-11-10

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2011-11-10

Appendix

Laboratory Certifications

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

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less 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.

W0# 11110809

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 3



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:

FERGUSON

SITE MANAGER:

IKE TAVEREZ

PROJECT NO.:

114-6401049

PROJECT NAME:

COG / ELECTRA FEDERAL # 5

EDD, CO., NM

SAMPLE IDENTIFICATION

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	EOD, CO, NM SAMPLE IDENTIFICATION		NUMBER OF	FILTERED (Y)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015	PAH 8270	ICRA Metal	TCLP Metal	TCLP Volatili	TCLP Semi	RCI	GC/MS Vol.	GC/MS Semi	PCB's 8080/	Pest. 808/60	Chloride	Gamma Spec	Alpha Beta	PLM (Asbes	Major Anion	
201845	11-4		S		X	BH-1	50'	1				X															X				
846							60'	1																			X				
847							70'	1																			X				
848							80'	1																			X				
849						BH-2	0-1	1																			X				
850							3'	1																			X				
851							5'	1																			X				
852							7'	1																			X				
853							10'	1																			X				
854							15'	1																			X				

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Date:

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY: MIDLAND

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

3.4°C intact

IKE TAVEREZ

RUSH Charges Authorized:

Yes No

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

WO # 11110804

Analysis Request of Chain of Custody Record

PAGE: 3 OF 3



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:

FERLUSON

SITE MANAGER:

IKE TAVAREZ

PROJECT NO.:

114-640-1049

PROJECT NAME:

COG/ELECTRA FEDERAL #5

EDDY CO., NM

SAMPLE IDENTIFICATION

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

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

855

11-4

S

X

BH-2 20'

1

X

856

25'

1

857

30'

1

858

40'

1

859

50'

1

860

60'

1

861

70'

1

862

80'

1

RELINQUISHED BY: (Signature)

[Signature]

Date: 11-8-11

Time: 1:37

RECEIVED BY: (Signature)

[Signature]

Date: 11/8/11

Time: 10:37

SAMPLED BY: (Print & Initial)

K.M.

Date: 11-9-11

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

[Signature]

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX
BUS
AND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

[Signature]

Date:

Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

TRACE

RECEIVED BY: (Signature)

[Signature]

ADDRESS:

CITY: MIDLAND

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

IKE TAVAREZ

RUSH Charges
Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

43.4°C intact

REMARKS:

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

Summary Report

(Corrected Report)

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

Report Date: October 24, 2013

Work Order: 13100420

Project Location: Eddy Co, NM
Project Name: COG/Electra Fed #5 Water Line
Project Number: 112MC05971

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
343336	AH-2 BH	soil	2013-09-11	00:00	2013-10-04
343337	AH-2 South SW	soil	2013-09-11	00:00	2013-10-04
343338	AH-2 East SW	soil	2013-09-12	00:00	2013-10-04
343339	AH-2 West SW	soil	2013-09-11	00:00	2013-10-04
343340	AH-3 BH	soil	2013-09-12	00:00	2013-10-04
343341	AH-3 North SW	soil	2013-09-12	00:00	2013-10-04
343342	AH-3 West SW	soil	2013-09-12	00:00	2013-10-04
343343	AH-3 East SW	soil	2013-09-12	00:00	2013-10-04
343344	AH-4 BH	soil	2013-09-10	00:00	2013-10-04
343345	AH-4 South SW	soil	2013-09-12	00:00	2013-10-04
343346	AH-4 East SW	soil	2013-09-12	00:00	2013-10-04
343347	AH-4 West SW	soil	2013-09-12	00:00	2013-10-04
343348	AH-5 BH	soil	2013-09-10	00:00	2013-10-04
343349	AH-5 East SW	soil	2013-09-10	00:00	2013-10-04
343350	AH-5 West SW	soil	2013-09-11	00:00	2013-10-04
343351	AH-6 BH	soil	2013-09-13	00:00	2013-10-04
343352	AH-6 North SW	soil	2013-09-10	00:00	2013-10-04
343353	AH-6 West SW	soil	2013-09-10	00:00	2013-10-04
343354	AH-6 East SW	soil	2013-09-10	00:00	2013-10-04

Sample: 343336 - AH-2 BH

Param	Flag	Result	Units	RL
Chloride		2990	mg/Kg	4

Sample: 343337 - AH-2 South SW

Param	Flag	Result	Units	RL
Chloride		104	mg/Kg	4

Sample: 343338 - AH-2 East SW

Param	Flag	Result	Units	RL
Chloride		471	mg/Kg	4

Sample: 343339 - AH-2 West SW

Param	Flag	Result	Units	RL
Chloride		1200	mg/Kg	4

Sample: 343340 - AH-3 BH

Param	Flag	Result	Units	RL
Chloride		5970	mg/Kg	4

Sample: 343341 - AH-3 North SW

Param	Flag	Result	Units	RL
Chloride		570	mg/Kg	4

Sample: 343342 - AH-3 West SW

Param	Flag	Result	Units	RL
Chloride		190	mg/Kg	4

Sample: 343343 - AH-3 East SW

Param	Flag	Result	Units	RL
Chloride		441	mg/Kg	4

Sample: 343344 - AH-4 BH

Param	Flag	Result	Units	RL
Chloride		656	mg/Kg	4

Sample: 343345 - AH-4 South SW

Param	Flag	Result	Units	RL
Chloride		266	mg/Kg	4

Sample: 343346 - AH-4 East SW

Param	Flag	Result	Units	RL
Chloride		591	mg/Kg	4

Sample: 343347 - AH-4 West SW

Param	Flag	Result	Units	RL
Chloride		205	mg/Kg	4

Sample: 343348 - AH-5 BH

Param	Flag	Result	Units	RL
Chloride		75.2	mg/Kg	4

Sample: 343349 - AH-5 East SW

Param	Flag	Result	Units	RL
Chloride		135	mg/Kg	4

Sample: 343350 - AH-5 West SW

Param	Flag	Result	Units	RL
Chloride		406	mg/Kg	4

Sample: 343351 - AH-6 BH

Param	Flag	Result	Units	RL
Chloride		170	mg/Kg	4

Sample: 343352 - AH-6 North SW

Param	Flag	Result	Units	RL
Chloride		30.1	mg/Kg	4

Report Date: October 24, 2013

Work Order: 13100420

Page Number: 4 of 4

Sample: 343353 - AH-6 West SW

Param	Flag	Result	Units	RL
Chloride		146	mg/Kg	4

Sample: 343354 - AH-6 East SW

Param	Flag	Result	Units	RL
Chloride		186	mg/Kg	4