SITE INFORMATION

Report Type: Closure Report

General Site Information:						
Site:	Burch Keely Unit #205					
Company:	COG Operating LLC					
Section, Township and Range	Unit O	Sec 26	T 17S	R 29E		
Lease Number:	API-30-015-03133					
County:	Eddy County					
GPS:	32.80244			104.04331		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	In Loco Hills from the intersection of CR 217 and HWY 82 travel WEST on HWY 82 for approximately 3.1 miles, and turn SOUTH onto lease road for 1.2 miles to the location on the west side of the lease road.					

Release Data:	
Date Released:	8/14/2013
Type Release:	Produced water
Source of Contamination:	Fiberglass Line
Fluid Released:	75 bbls
Fluids Recovered:	50 bbls

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

Ranking Criteria		
Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	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

December 03, 2014

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

Re: Closure Report for the COG Operating LLC., Burch Keely Unit #205, Unit O, Section 26, Township 17 South, Range 97 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Burch Keely Unit #205, Unit O, Section 26, Township 17 South, Range 97 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.80244, W 104.04331. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on August 14, 2013, and released approximately seventy five (75) barrels of produced water from a failed fitting on a fiberglass water line. To alleviate the problem, COG personnel replaced the fitting. Fifty (50) barrels of produced water were recovered. The spill initiated in the pasture affecting an area approximately 90' X 60' and 70' x 30'. The initial C-141 form is enclosed in Appendix A.

Groundwater

According to the NM State Engineers Well Report, two (2) water wells were listed in Section 34 with depth to groundwater of approximately 60' below surface. The Geology and Groundwater Conditions in Southern Eddy County, New Mexico Resource shows groundwater depth of approximately 150' below surface. The NMOC groundwater map shows a depth to groundwater of approximately 150' below surface. The groundwater data is shown in Appendix B.

Tetra Tech
4000 North Big Spring, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Regulatory

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

Soil Assessment and Analytical Results

Auger holes

On September 3, 2013, Tetra Tech personnel inspected and sampled the spill area. Five (5) auger holes (AH-1 through AH-5) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, none of the samples showed BTEX or TPH concentrations above the RRAL. Auger holes (AH-1 and AH-2) showed elevated chloride concentrations down to 9.5' below surface with chloride highs of 20,400 mg/kg and 22,100 mg/kg at 2.5' below surface, respectively. The areas of auger holes (AH-1 and AH2) were not vertically defined.

The areas of auger holes (AH-3, AH-4 and AH-5) all showed elevated chloride concentrations with chloride highs of 17,800 mg/kg at 2.5', 20,400 mg/kg at 4.5', and 20,800 mg/kg at 1.5' below surface, respectively. Auger holes (AH-3, AH-4, and AH-5) showed a decline in chloride concentrations with depth with chloride concentrations of 445 mg/kg at 6.5', 327 mg/kg at 8.5' and 299 mg/kg at 7.5' below surface, respectively. However, in the areas of auger holes (AH-4 and AH-5) the chloride concentrations increase or spiked to 3,120 mg/kg at 9.5' and 1,770 mg/kg at 5.5' below depth, respectively; possibly due to cross contamination.

TETRA TECH

Boreholes

On June 18, 2014, Tetra Tech personnel supervised the installation of a borehole in order to vertically delineate the chloride impact in the areas of auger holes (AH-1 and AH-2). A shallow underground line (Phillips pipeline) located in the center of the spill area. Due to access issues and safety concerns, one (1) borehole (BH-1) was installed between auger holes (AH-1 and AH-2). The area of BH-1 showed elevated chloride concentrations with a chloride high of 12,900 mg/kg at 6'-7' below surface, but declined with depth to 148 mg/kg at 29'-30' below surface. Based on the data, the impacted area was vertically defined.

Remediation Activities

On October 20, 2014, Tetra Tech supervised the removal of impacted material as highlighted (green) in Table 1 and shown on Figure 4. As discussed in the submitted work plan, the areas of auger holes (AH-1 and AH-2) were excavated to a depth of approximately 3.5' below surface. Once excavated, these areas were then lined with a 40 mil liner to cap the remaining impacted soils. In addition, the areas of AH-3, AH-4 and AH-5 were excavated to depth of 4.0', 6.0' and 3.0' below surface, respectively. A total of 380 cubic yards were transported to proper disposal. Once excavated to the appropriate depths, the excavation was backfilled with clean soil to surface grade.

Conclusion

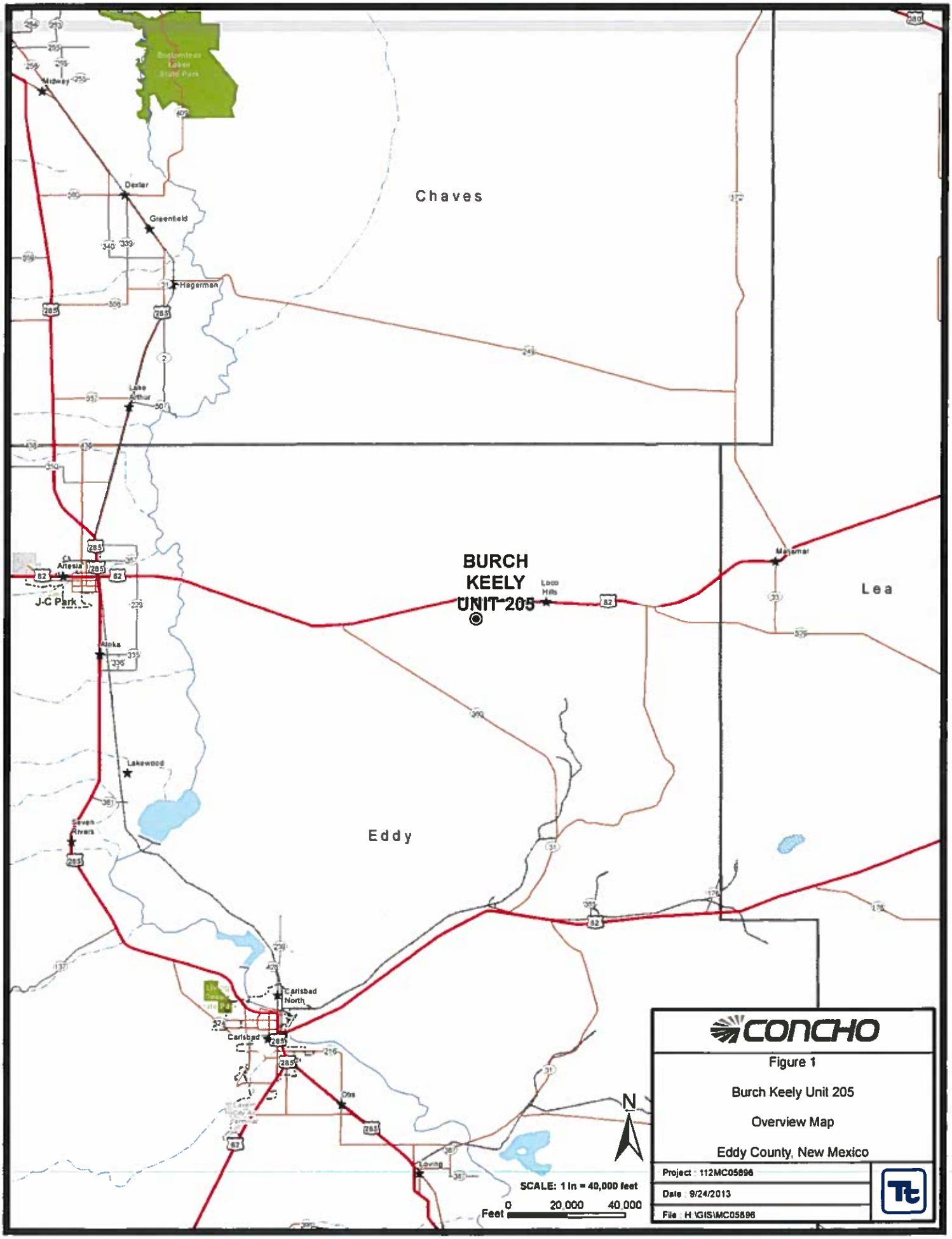
Based on the assessment and remediation work performed at this site, COG requests closure of this spill issue. A final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

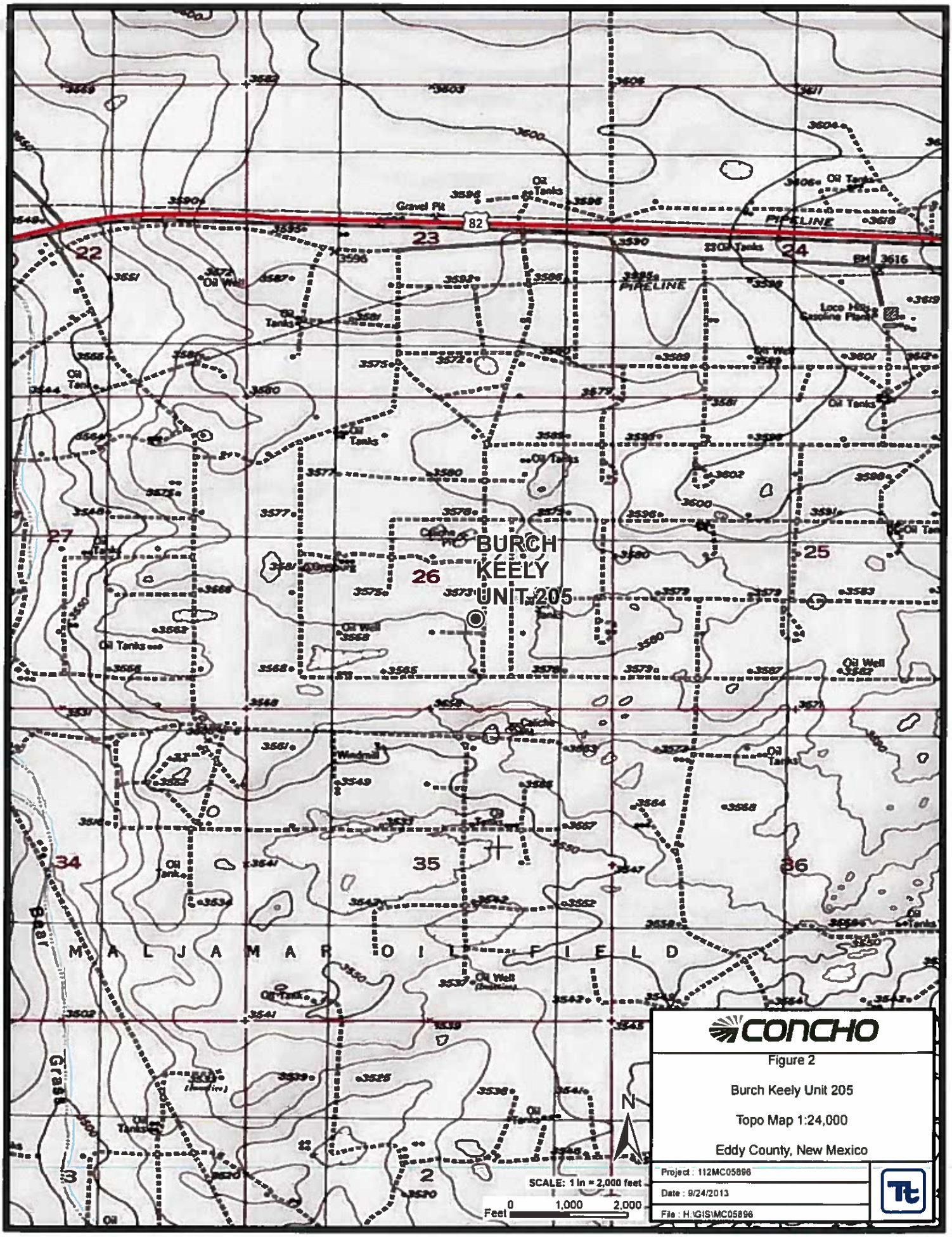
Ike Tavarez, P.G.
Senior Project Manager

cc: Robert McNeill – COG

FIGURES



Drawn By: Alan McClanahan



CONCHO

Figure 2

Burch Keely Unit 205

Topo Map 1:24,000

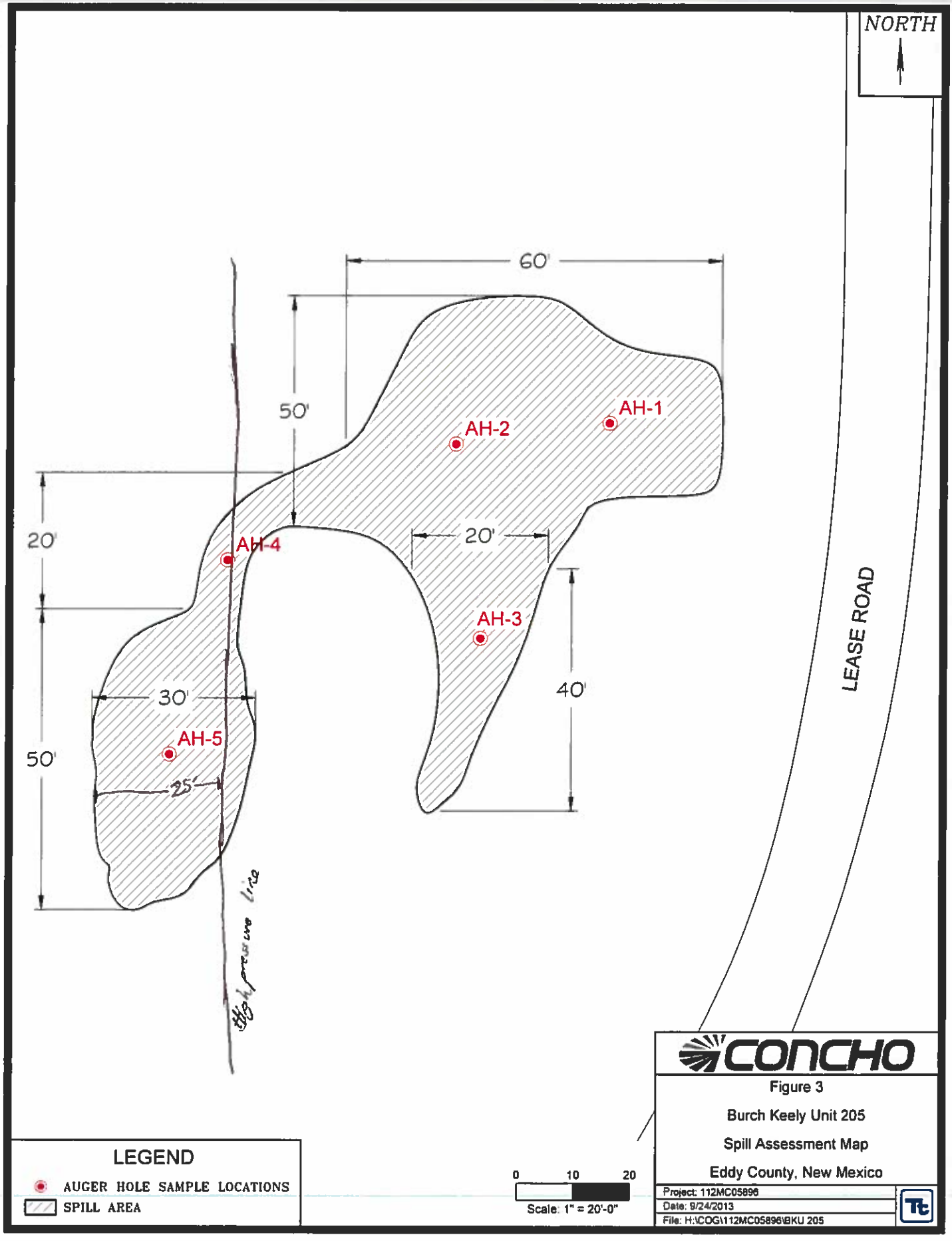
Eddy County, New Mexico

Project : 112MC05896

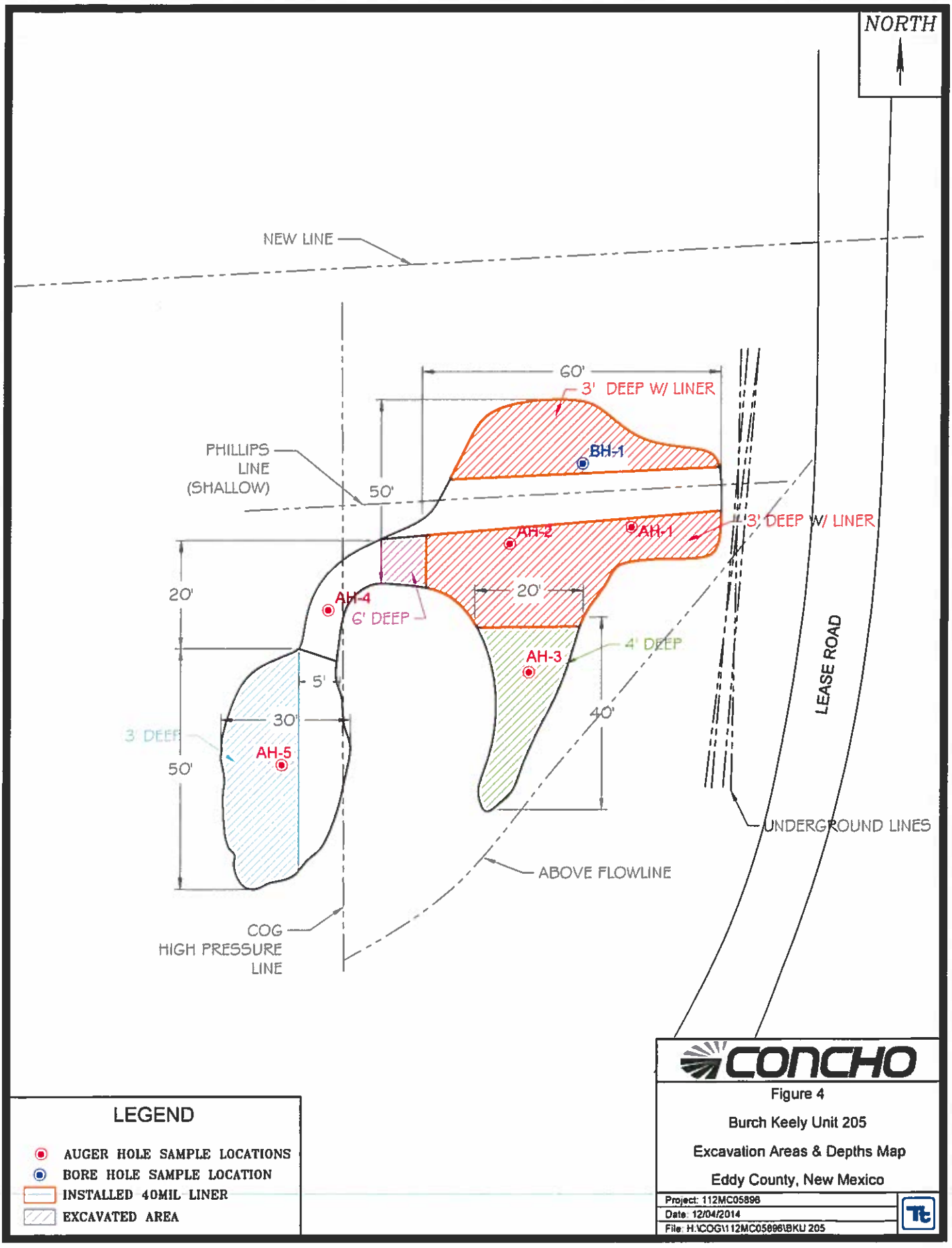
Date : 9/24/2013

File : H:\GIS\MC05896

Drawn By: Alan McClanahan


NORTH
60'
50'
AH-1
AH-2
20'
AH-4
20'
AH-3
40'
30'
AH-5
50'
25'
LEASE ROAD
LEGEND
AUGER HOLE SAMPLE LOCATIONS
SPILL AREA
0 10 20
Scale: 1" = 20'-0"
CONCHO
Figure 3
Burch Keely Unit 205
Spill Assessment Map
Eddy County, New Mexico
Project: 112MC05896
Date: 9/24/2013
File: H:\COG\112MC05896\BKU 205


NORTH
60'
50'
AH-1
AH-2
20'
AH-4
20'
AH-3
40'
30'
AH-5
50'
LEASE ROAD
LEGEND
AUGER HOLE SAMPLE LOCATIONS
SPILL AREA
0
10
20
Scale: 1" = 20'-0"
CONCHO
Figure 3
Burch Keely Unit 205
Spill Assessment Aerial Map
Eddy County, New Mexico
Project: 112MC05896
Date: 9/24/2013
File: H:\COG\112MC05896\BKU 205


NORTH
NEW LINE
60'
3' DEEP W/ LINER
BH-1
PHILLIPS LINE (SHALLOW)
50'
3' DEEP W/ LINER
AH-2
AH-1
20'
AH-4
6' DEEP
20'
4' DEEP
AH-3
5'
40'
30'
3' DEEP
AH-5
50'
LEASE ROAD
UNDERGROUND LINES
ABOVE FLOWLINE
COG HIGH PRESSURE LINE
LEGEND
AUGER HOLE SAMPLE LOCATIONS
BORE HOLE SAMPLE LOCATION
INSTALLED 40MIL LINER
EXCAVATED AREA
CONCHO
Figure 4
Burch Keely Unit 205
Excavation Areas & Depths Map
Eddy County, New Mexico
Project: 112MC05898
Date: 12/04/2014
File: H:\COG\112MC05898\BKU 205

PHOTOGRAPHS

COG Operating LLC
Burch Keely Unit #205
Eddy County, New Mexico

TETRA TECH

View West – Area of AH-1 and AH-2 backfilled on North side of pipeline

View South – Areas of AH-3 backfilled

COG Operating LLC
Burch Keely Unit #205
Eddy County, New Mexico

TETRA TECH

View East – Area of AH 1-AH 3 backfilled with DCP shallow line outlined in berm.

View North – Area of AH 4 and AH 5 backfilled

TABLES

Table 1
COG Operating LLC.
Burch Keely #205
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-1	9/3/2013	0-1	-		X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	2,770
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	3,650
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	20,400
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	17,000
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	14,700
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	12,900
	"	6-6.5	-	X		-	-	-	-	-	-	-	-	11,200
	"	7-7.5	-	X		-	-	-	-	-	-	-	-	6,230
	"	8-8.5	-	X		-	-	-	-	-	-	-	-	10,800
	"	9-9.5	-	X		-	-	-	-	-	-	-	-	4,050
BH-1	6/18/2014	0-1	-		X	-	-	-	-	-	-	-	-	429
	"	2-3	-		X	-	-	-	-	-	-	-	-	<20.0
	"	4-5	-	X		-	-	-	-	-	-	-	-	2,220
	"	6-7	-	X		-	-	-	-	-	-	-	-	12,900
	"	9-10	-	X		-	-	-	-	-	-	-	-	3,100
	"	14-15	-	X		-	-	-	-	-	-	-	-	5,520
	"	19-20	-	X		-	-	-	-	-	-	-	-	4,040
	"	24-25	-	X		-	-	-	-	-	-	-	-	1,380
	"	29-30	-	X		-	-	-	-	-	-	-	-	148
	"	34-35	-	X		-	-	-	-	-	-	-	-	296
AH-2	9/3/2013	0-1	-		X	<4.00	141	141	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,830
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	5,680
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	22,100
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	7,740
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	11,800
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	7,390
	"	6-6.5	-	X		-	-	-	-	-	-	-	-	5,810
	"	7-7.5	-	X		-	-	-	-	-	-	-	-	2,730
	"	8-8.5	-	X		-	-	-	-	-	-	-	-	4,260
	"	9-9.5	-	X		-	-	-	-	-	-	-	-	1,420

Table 1
COG Operating LLC.
Burch Keely #205
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-3	9/3/2013	0-1	-		X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,260
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	7,040
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	17,800
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	13,800
	"	4-4.5	-		X	-	-	-	-	-	-	-	-	1,790
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	675
	"	6-6.5	-	X		-	-	-	-	-	-	-	-	445
AH-4	9/3/2013	0-1	-		X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	12,500
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	8,880
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	2,650
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	4,990
	"	4-4.5	-		X	-	-	-	-	-	-	-	-	20,400
	"	5-5.5	-		X	-	-	-	-	-	-	-	-	10,200
	"	6-6.5	-		X	-	-	-	-	-	-	-	-	8,240
	"	7-7.5	-	X		-	-	-	-	-	-	-	-	347
	"	8-8.5	-	X		-	-	-	-	-	-	-	-	327
	"	9-9.5	-	X		-	-	-	-	-	-	-	-	3,120
AH-5	9/3/2013	0-1	-		X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	5,240
	"	1-1.5	-		X	-	-	-	-	-	-	-	-	20,800
	"	2-2.5	-		X	-	-	-	-	-	-	-	-	6,690
	"	3-3.5	-		X	-	-	-	-	-	-	-	-	4,110
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	559
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	1,770
	"	6-6.5	-	X		-	-	-	-	-	-	-	-	495
	"	7-7.5	-	X		-	-	-	-	-	-	-	-	299

Excavation Depth

Liner Depth

(-) Not Analyzed

(BEB) Below Excavation Bottom

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, TX 79701	Telephone No.	432-230-0077
Facility Name	Burch Keely Unit #205	Facility Type	Pasture

Surface Owner Federal	Mineral Owner	Lease No. (API#) 30-015-03133

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	26	17S	29E					Eddy

Latitude 32 48.163 Longitude 104 02.567

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 75bbls	Volume Recovered 50bbls
Source of Release Fiberglass line	Date and Hour of Occurrence 08-14-2013	Date and Hour of Discovery 08-14-2013 11:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Michelle Mullins	Date and Hour 08-15-2013 10:03am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A fiberglass fitting came loose. Replaced the fitting a new fitting.

Describe Area Affected and Cleanup Action Taken.*

Initially 75bbls of produced water were released due to a fitting came loose on a fiberglass line. We were able to recover 50bbls with a vacuum truck. All free fluid has been recovered. The spill was located in the pasture. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD/BLM for approval prior to any significant remediation work.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Robert Grubbs Jr.	Approved by District Supervisor:	
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: rgrubbs@concho.com	Conditions of Approval:	Attached ☐
Date: 08-15-2013 Phone: 432-661-6601		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **COG Operating LLC**	Contact **Robert McNeil**
Address **600 West Illinois Avenue, Midland, Texas 79701**	Telephone No. **(432) 230-0077**
Facility Name Burch Keely Unit #205	Facility Type **Pasture**

Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-015-03133

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	26	17S	29E					Eddy

Latitude N 32.802717° Longitude W 104.042783°

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release **75 bbls**	Volume Recovered **50 bbls**
Source of Release Fiberglass line	Date and Hour of Occurrence 08-14-2013	Date and Hour of Discovery **08-14-2013 11:00a.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Mike Bratcher- NMOCD**	
By Whom? Michelle Mullins	Date and Hour 8-15-2013 10.03am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

A fiberglass fitting came loose. Replaced the fitting a new fitting

Describe Area Affected and Cleanup Action Taken.*

Initially 75 bbls of produced water were released due to a fitting that came loose on a fiberglass line. 50 bbls of produced water was recovered with a vacuum truck. All free fluids have been removed. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Liners were installed according to the work plan. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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

Signature: (Agent for COG)	OIL CONSERVATION DIVISION	
Printed Name: Ike Tavarez	Approved by District Supervisor:	
Title: Project Manager, P.G.	Approval Date:	Expiration Date:
E-mail Address: ike.tavarez@tetratech.com	Conditions of Approval:	Attached ☐
Date: 12-4-14 Phone: (432) 687-8110		

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Burch Keely #205
Eddy County, New Mexico

16 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 61	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 220 dry	13
19 110	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South 30 East

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

17 South 28 East

6	5	4	3	2 28	1
7	8	9	10	11	12
18	17	16	15	14 80	13
19 224	20	21	22 45 79	23	24
30	29	28	27	26	25
31	32 SITE	33	34	35 258	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 76 80	23	24
30	29 210 208	28	27	26 SITE	25
31	32	33	34	35 153	36

17 South 30 East

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

18 South 28 East

6	5	4 108	3	2	1
7 49	8 81 69	9	10	11	12
18	17	16	15	14	13
19	20	21 226	22	23	24
30 137	29	28	27	26	25
31	32	33	34	35 65	36

18 South 29 East

6	5	4	3	2	1
7	8	9	10 95	11	12
18	17	16	15	14	13
19	20	21	22	23	24 158
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

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

APPENDIX C

Summary Report

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

Report Date: September 18, 2013

Work Order: 13090537

Project Location: NM
Project Name: COG/BKU #205
Project Number: TBD

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
341197	AH-1 0-1'	soil	2013-09-03	00:00	2013-09-05
341198	AH-1 1-1.5'	soil	2013-09-03	00:00	2013-09-05
341199	AH-1 2-2.5'	soil	2013-09-03	00:00	2013-09-05
341200	AH-1 3-3.5'	soil	2013-09-03	00:00	2013-09-05
341201	AH-1 4-4.5'	soil	2013-09-03	00:00	2013-09-05
341202	AH-1 5-5.5'	soil	2013-09-03	00:00	2013-09-05
341203	AH-1 6-6.5'	soil	2013-09-03	00:00	2013-09-05
341204	AH-1 7-7.5'	soil	2013-09-03	00:00	2013-09-05
341205	AH-1 8-8.5'	soil	2013-09-03	00:00	2013-09-05
341206	AH-1 9-9.5'	soil	2013-09-03	00:00	2013-09-05
341207	AH-2 0-1'	soil	2013-09-03	00:00	2013-09-05
341208	AH-2 1-1.5'	soil	2013-09-03	00:00	2013-09-05
341209	AH-2 2-2.5'	soil	2013-09-03	00:00	2013-09-05
341210	AH-2 3-3.5'	soil	2013-09-03	00:00	2013-09-05
341211	AH-2 4-4.5'	soil	2013-09-03	00:00	2013-09-05
341212	AH-2 5-5.5'	soil	2013-09-03	00:00	2013-09-05
341213	AH-2 6-6.5'	soil	2013-09-03	00:00	2013-09-05
341214	AH-2 7-7.5'	soil	2013-09-03	00:00	2013-09-05
341215	AH-2 8-8.5'	soil	2013-09-03	00:00	2013-09-05
341216	AH-2 9-9.5'	soil	2013-09-03	00:00	2013-09-05
341217	AH-3 0-1'	soil	2013-09-03	00:00	2013-09-05
341218	AH-3 1-1.5'	soil	2013-09-03	00:00	2013-09-05
341219	AH-3 2-2.5'	soil	2013-09-03	00:00	2013-09-05
341220	AH-3 3-3.5'	soil	2013-09-03	00:00	2013-09-05
341221	AH-3 4-4.5'	soil	2013-09-03	00:00	2013-09-05
341222	AH-3 5-5.5'	soil	2013-09-03	00:00	2013-09-05
341223	AH-3 6-6.5'	soil	2013-09-03	00:00	2013-09-05
341224	AH-4 0-1'	soil	2013-09-03	00:00	2013-09-05
341225	AH-4 1-1.5'	soil	2013-09-03	00:00	2013-09-05
341226	AH-4 2-2.5'	soil	2013-09-03	00:00	2013-09-05

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
341227	AH-4 3-3.5'	soil	2013-09-03	00:00	2013-09-05
341228	AH-4 4-4.5'	soil	2013-09-03	00:00	2013-09-05
341229	AH-4 5-5.5'	soil	2013-09-03	00:00	2013-09-05
341230	AH-4 6-6.5'	soil	2013-09-03	00:00	2013-09-05
341231	AH-4 7-7.5'	soil	2013-09-03	00:00	2013-09-05
341232	AH-4 8-8.5'	soil	2013-09-03	00:00	2013-09-05
341233	AH-4 9-9.5'	soil	2013-09-03	00:00	2013-09-05
341234	AH-5 0-1'	soil	2013-09-03	00:00	2013-09-05
341235	AH-5 1-1.5'	soil	2013-09-03	00:00	2013-09-05
341236	AH-5 2-2.5'	soil	2013-09-03	00:00	2013-09-05
341237	AH-5 3-3.5'	soil	2013-09-03	00:00	2013-09-05
341238	AH-5 4-4.5'	soil	2013-09-03	00:00	2013-09-05
341239	AH-5 5-5.5'	soil	2013-09-03	00:00	2013-09-05
341240	AH-5 6-6.5'	soil	2013-09-03	00:00	2013-09-05
341244	AH-5 7-7.5	soil	2013-09-03	00:00	2013-09-05

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
341197 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Qs
341207 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	**141**	<4.00 Qs
341217 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Qs
341224 - AH-4 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Qs
341234 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Qs

Sample: 341197 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**2770**	mg/Kg	4

Sample: 341198 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**3650**	mg/Kg	4

Sample: 341199 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**20400**	mg/Kg	4

Sample: 341200 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**17000**	mg/Kg	4

Sample: 341201 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**14700**	mg/Kg	4

Sample: 341202 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**12900**	mg/Kg	4

Sample: 341203 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**11200**	mg/Kg	4

Sample: 341204 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**6230**	mg/Kg	4

Sample: 341205 - AH-1 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**10800**	mg/Kg	4

Sample: 341206 - AH-1 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**4050**	mg/Kg	4

Sample: 341207 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**3830**	mg/Kg	4

Sample: 341208 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**5680**	mg/Kg	4

Sample: 341209 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**22100**	mg/Kg	4

Sample: 341210 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**7740**	mg/Kg	4

Sample: 341211 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**11800**	mg/Kg	4

Sample: 341212 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**7390**	mg/Kg	4

Sample: 341213 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**5810**	mg/Kg	4

Sample: 341214 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**2730**	mg/Kg	4

Sample: 341215 - AH-2 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**4260**	mg/Kg	4

Sample: 341216 - AH-2 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**1420**	mg/Kg	4

Sample: 341217 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**3260**	mg/Kg	4

Sample: 341218 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**7040**	mg/Kg	4

Sample: 341219 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**17800**	mg/Kg	4

Sample: 341220 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**13800**	mg/Kg	4

Sample: 341221 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1790**	mg/Kg	4

Sample: 341222 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**675**	mg/Kg	4

Sample: 341223 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**445**	mg/Kg	4

Sample: 341224 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**12500**	mg/Kg	4

Sample: 341225 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**8880**	mg/Kg	4

Sample: 341226 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2650**	mg/Kg	4

Sample: 341227 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**4990**	mg/Kg	4

Sample: 341228 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**20400**	mg/Kg	4

Sample: 341229 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**10200**	mg/Kg	4

Sample: 341230 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**8240**	mg/Kg	4

Sample: 341231 - AH-4 7-7.5'

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

Sample: 341232 - AH-4 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**327**	mg/Kg	4

Sample: 341233 - AH-4 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**3120**	mg/Kg	4

Sample: 341234 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**5240**	mg/Kg	4

Sample: 341235 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**20800**	mg/Kg	4

Sample: 341236 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**6690**	mg/Kg	4

Sample: 341237 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**4110**	mg/Kg	4

Sample: 341238 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**559**	mg/Kg	4

Sample: 341239 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1770**	mg/Kg	4

Sample: 341240 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**495**	mg/Kg	4

Sample: 341244 - AH-5 7-7.5

Param	Flag	Result	Units	RL
Chloride		**299**	mg/Kg	4

13090537

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 5

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

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.:
PROJECT NAME: BKU #205

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION (Eddy Co, NM)	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 MOD. 8015 (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
41197	9-8		S		X	AH-1 0-1					X		X	X											X				
198			S		X	" 1-1.5					X														X				
199			S		X	" 2-2.5					X														X				
200			S		X	" 3-3.5					X														X				
201			S		X	" 4-4.5					X														X				
202			S		X	" 5-5.5					X														X				
203			S		X	" 6-6.5					X														X				
204			S		X	" 7-7.5					X														X				
205			S		X	" 8-8.5					X														X				
206			S		X	" 9-9.5					X														X				

RELINQUISHED BY: (Signature) Mavin Cerros	Date: 9-8-13 Time: 14:10	RECEIVED BY: (Signature)	Date: 9/8/13 Time: 17:10
SAMPLED BY: (Print & Initial) MAG	Date: 9-8-13 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 1.9°	REMARKS: Run deeper samples if Benzene exceeds 10, total BTEX exceeds 50 or TPH exceeds 5000. Run Chlorides on all		

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

Midland all

13090537

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 5

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.:

PROJECT NAME: BKU #205

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
207	9-3		S		X	AH-2 D-1					X		X	X											X				
208			S		X	" 1-1.5					X														X				
209			S		X	" 2-2.5					X														X				
210			S		X	" 3-3.5					X														X				
211			S		X	" 4-4.5					X														X				
212			S		X	" 5-5.5					X														X				
213			S		X	" 6-6.5					X														X				
214			S		X	" 7-7.5					X														X				
215			S		X	" 8-8.5					X														X				
216			S		X	" 9-9.5					X														X				

RELINQUISHED BY: (Signature) — Date: 9-5-13 Time: 14:10
RECEIVED BY: (Signature) — Date: 9/5/13 Time: 14:10
SAMPLED BY: (Print & Initial) MC3 CG — Date: 9-3-13 Time:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
TETRA TECH CONTACT PERSON: — Results by:

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.9 5
REMARKS:

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

13090537

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: 5

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.:

PROJECT NAME: BKU #205

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION Eddy Co., NM	# 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
217	9.3		S		X	AH-3 0-1					X		X	X										X				
218			S		X	1-1.5					X													X				
219			S		X	2-2.5					X													X				
220			S		X	3-3.5					X													X				
221			S		X	4-4.5					X													X				
222			S		X	5-5.5					X													X				
223			S		X	6-6.5					X													X				
224			S		X	AH-4 0-1					X		X	X										X				
225			S		X	1-1.5					X													X				
226	↓		S		X	2-2.5					X													X				

RELINQUISHED BY: (Signature) Date: 7.5.13 Time: 14:15

RECEIVED BY: (Signature) Date: 7/5/13 Time: 1510

SAMPLED BY: (Print & Initial) MK & CC Date: 7-3-13 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Results by:

RECEIVING LABORATORY: RECEIVED BY: (Signature)

ADDRESS:

CITY: STATE: ZIP:

CONTACT: PHONE: DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.9 0

REMARKS:

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

13090537

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: 5

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.:

PROJECT NAME: BKU #205

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD.: TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
227	9.3		S		X	AH-4	3-3.5					X													X				
228	"		S		X	"	4-4.5					X													X				
229	"		S		X	"	5-5.5					X													X				
230	"		S		X	"	6-6.5					X													X				
231	"		S		X	"	7-7.5					X													X				
232	"		S		X	"	8-8.5					X													X				
233	"		S		X	"	9-9.5					X													X				
234	"		S		X	AH-5	0-1					X		NX											X				
235	"		S		X	"	1-1.5					X													X				
236	"		S		X	"	2-2.5					X													X				

RELINQUISHED BY: (Signature) — Date: 9.5.13 Time: 14:50
RECEIVED BY: (Signature) — Date: 9.5.13 Time: 14:50

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

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

SAMPLED BY: (Print & Initial) — Date: 9.5.13 Time:

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

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

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.9

REMARKS:

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

13090537

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 5

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.:

PROJECT NAME: BKU #205

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
237	9.9		S		X	AH-5 3-3.5					X													X				
238			S		X	" 4-4.5					X													X				
239			S		X	" 5-5.5					X													X				
240			S		X	" 6-6.5					X													X				
244						AH-5 7-7.5'																		X				

RELINQUISHED BY: (Signature) Mike Gonzales — Date: 9.5.13 Time: 14:30

RECEIVED BY: (Signature) — Date: 9.5.13 Time: 14:10

SAMPLED BY: (Print & Initial) Mr. & CG — Date: 9.5.13 Time:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

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

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) — Date: Time:

RECEIVED BY: (Signature) — Date: Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

ADDRESS:

CITY: STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.9°

REMARKS: Recved AH-5 7-7.5' not listed — added

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

Summary Report

Ike Tavarez
Tetra Tech
1901 N. Big Spring St.
Midland, TX 79705

Report Date: June 24, 2014

Work Order: 14062014

Project Location: Eddy Co, NM
Project Name: COG/BKU #205
Project Number: 112MC05896

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
366362	BH-1 0-1'	soil	2014-06-18	00:00	2014-06-20
366363	BH-1 2-3'	soil	2014-06-18	00:00	2014-06-20
366364	BH-1 4-5'	soil	2014-06-18	00:00	2014-06-20
366365	BH-1 6-7'	soil	2014-06-18	00:00	2014-06-20
366366	BH-1 9-10'	soil	2014-06-18	00:00	2014-06-20
366367	BH-1 14-15'	soil	2014-06-18	00:00	2014-06-20
366368	BH-1 19-20'	soil	2014-06-18	00:00	2014-06-20
366369	BH-1 24-25'	soil	2014-06-18	00:00	2014-06-20
366370	BH-1 29-30'	soil	2014-06-18	00:00	2014-06-20
366371	BH-1 34-35'	soil	2014-06-18	00:00	2014-06-20

Sample: 366362 - BH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**429**	mg/Kg	4

Sample: 366363 - BH-1 2-3'

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

Sample: 366364 - BH-1 4-5'

Param	Flag	Result	Units	RL
Chloride		**2220**	mg/Kg	4

Sample: 366365 - BH-1 6-7'

Param	Flag	Result	Units	RL
Chloride		**12900**	mg/Kg	4

Sample: 366366 - BH-1 9-10'

Param	Flag	Result	Units	RL
Chloride		**3100**	mg/Kg	4

Sample: 366367 - BH-1 14-15'

Param	Flag	Result	Units	RL
Chloride		**5520**	mg/Kg	4

Sample: 366368 - BH-1 19-20'

Param	Flag	Result	Units	RL
Chloride		**4040**	mg/Kg	4

Sample: 366369 - BH-1 24-25'

Param	Flag	Result	Units	RL
Chloride		**1380**	mg/Kg	4

Sample: 366370 - BH-1 29-30'

Param	Flag	Result	Units	RL
Chloride		**148**	mg/Kg	4

Sample: 366371 - BH-1 34-35'

Param	Flag	Result	Units	RL
Chloride		**296**	mg/Kg	4

1406 2014

Analysis Request of Chain of Custody Record

PAGE: | OF:

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

CLIENT NAME: COG | SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05896 | PROJECT NAME: BKU #205

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2014	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION Eddy Co NM	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
36362	6/18		S		X	BH-1 0-1					X													X				
363						" 2-3					X													X				
364						" 4-5					X													X				
365						" 6-7					X													X				
366						" 9-10					X													X				
367						" 14-15					X													X				
368						" 19-20					X													X				
369						" 24-25					X													X				
370						" 29-30					X													X				
371						" 34-35					X													X				

RELINQUISHED BY: (Signature) Chad Gonzales	Date: 6-25-14 Time: 1035	RECEIVED BY: (Signature)	Date: 6/26/14 Time: 10:37
SAMPLED BY: (Print & Initial) CG	Date: 6-18-14 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 10.6°	REMARKS: Midland. ag		

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