SITE INFORMATION

Report Type: Work Plan

General Site Information:						
Site:	Myox 31-13 Flow line					
Company:	COG Operating LLC					
Section, Township and Range	Unit P	Sec. 31	T-25-S	R-28-E		
Lease Number:	API-30-015-37497					
County:	Eddy					
GPS:	32.08029° N			104.11799° W		
Surface Owner:	State					
Mineral Owner:						
Directions:	Intersection of Hwy 285 and White City Road (Approximately 12 miles south of Malaga, NM), travel west on White City Rd 2.5 mi, right 1.0 mi, left 0.5 miles, right over cattle guard 0.5 mi to location in pasture east of lease road					

Release Data:	
Date Released:	2/10/2012
Type Release:	Produced Water
Source of Contamination:	Flow line
Fluid Released:	20 bbls
Fluids Recovered:	None

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

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

Acceptable Soil RRAL (mg/kg)		
Benzene	***Total BTEX***	***TPH***
10	50	100

TETRA TECH

May 31, 2012

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

Re: Work Plan for the COG Operating LLC., Myox 31-13 Flow line, Unit P, Section 31, Township 25 South, Range 28 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 Myox 31-13 Flow line located in Unit P, Section 31, Township 25 South, Range 28 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.08029°, W 104.11799°. 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 February 10, 2012, and released approximately twenty (20) barrels of produced water due to a grass fire melting the flow line. To alleviate the problem, COG personnel replaced the damaged line. COG was unable to recover any of spilled fluids. The spill initiated from the damaged flowline and migrated across the native pasture impacting an area approximately 60' x 180'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 31. The New Mexico State Engineers Office showed two wells were listed in Sections 20 and 28 with depths to groundwater of 96.0' and 90.0' below surface, respectively. According to the NMOCD groundwater map, one well is listed in Section 29 with a depth to groundwater of 15.0' below surface. This well appears to be located near a draw with a relative elevation of 2969'. The site relative

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

elevation is approximately 3014', which the groundwater depth at the site should be at approximately 50.0' below surface. Based on the limited groundwater data, Tetra Tech will inventory water wells in the area and confirm the groundwater depth from any water wells accessible near the area. The groundwater data is shown on 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 100 mg/kg.

Soil Assessment and Analytical Results

On March 7, 2012, Tetra Tech personnel inspected and sampled the spill area. Seven (7) auger holes (AH-1 through AH-7) were installed to a depth of 5-5.5' below surface 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 reports 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 of the submitted samples were below the RRAL for TPH and BTEX. Elevated chloride concentrations were detected at all of the auger holes, with the exception AH-1 and AH-7. Auger holes (AH-1 and AH-7) did not show a significant impact to the soils. Auger hole (AH-2) showed a shallow impact declining to 608 mg/kg at 2-2.5' below surface. The remaining auger holes were not vertically defined.

On April 16, 2012, Tetra Tech personnel supervised the installation of four (4) boreholes (BH-1 through BH-4) utilizing an air rotary drilling rig. Samples were collected to a depth of 40.0' below surface. The sampling results are summarized on Table 1. Referring to Table 1, the elevated chloride concentrations significantly declined with depth at 5.0' to 7.0' below surface. The deeper samples from 7.0' to 25.0' did show chloride

concentrations ranging from 1,020 mg/kg to 1,740 mg/kg, but declined with depth.

Work Plan

COG proposes to removal of impacted material as highlighted (green) in Table 1 and shown on Figure 4. No impact was encountered in the areas of AH-1 and AH-7. To remove the elevated chloride concentrations, the area of AH-2 will be excavated to a depth of approximately 2.0'.below surface. The areas of AH-4 and AH-5 will be excavated to a depth of approximately 5.0' and AH-3 and AH-6 to a depth of 7.0' below surface. Once excavated to the appropriate depths, the excavated areas (AH-3, AH-4, AH-5 and AH-6) will be capped with a 40 mil liner at 4.0' to 5.0' below surface and backfilled to grade with clean soil.

Due to the location of the spill, the proposed excavation depths and areas may not be achieved due to wall cave ins, oil and gas equipment, electrical, structures or lines which may not be feasible or practicable to be removed due to safely concerns. As such, Tetra Tech will excavate the soils to the maximum extent practicable. If the impacted soil is not accessible, the soil will be deferred unit the abandonment of the facility. If deeper excavation cannot be achieved, the impacted soil will be capped with a 40 mil liner 4.0' to 5.0' below surface and backfilled with soil to grade

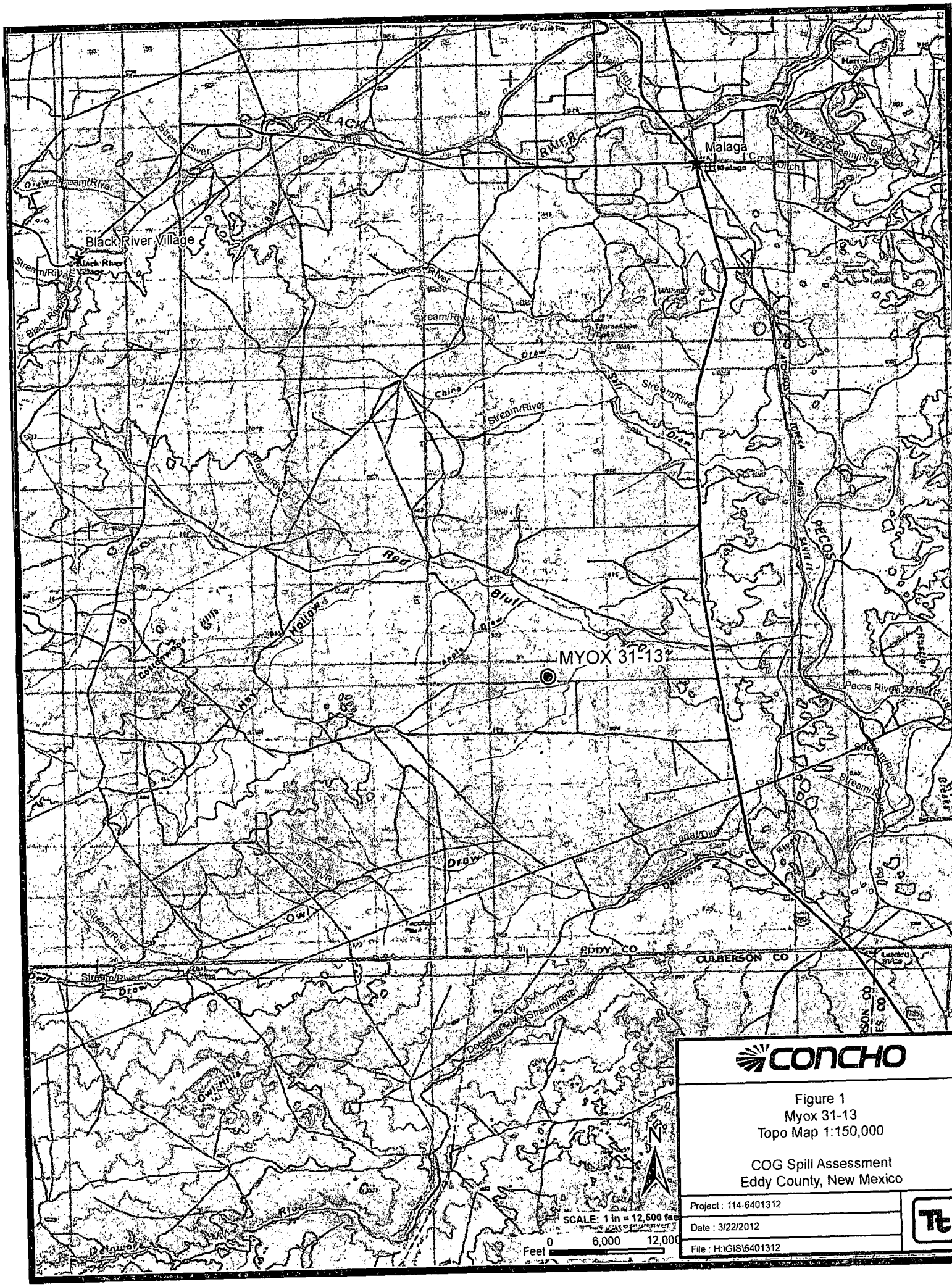
Upon completion a final report will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez
Senior Project Manager

cc: Pat Ellis – COG

Figures



CONCHO

Figure 1
Myox 31-13
Topo Map 1:150,000

COG Spill Assessment
Eddy County, New Mexico

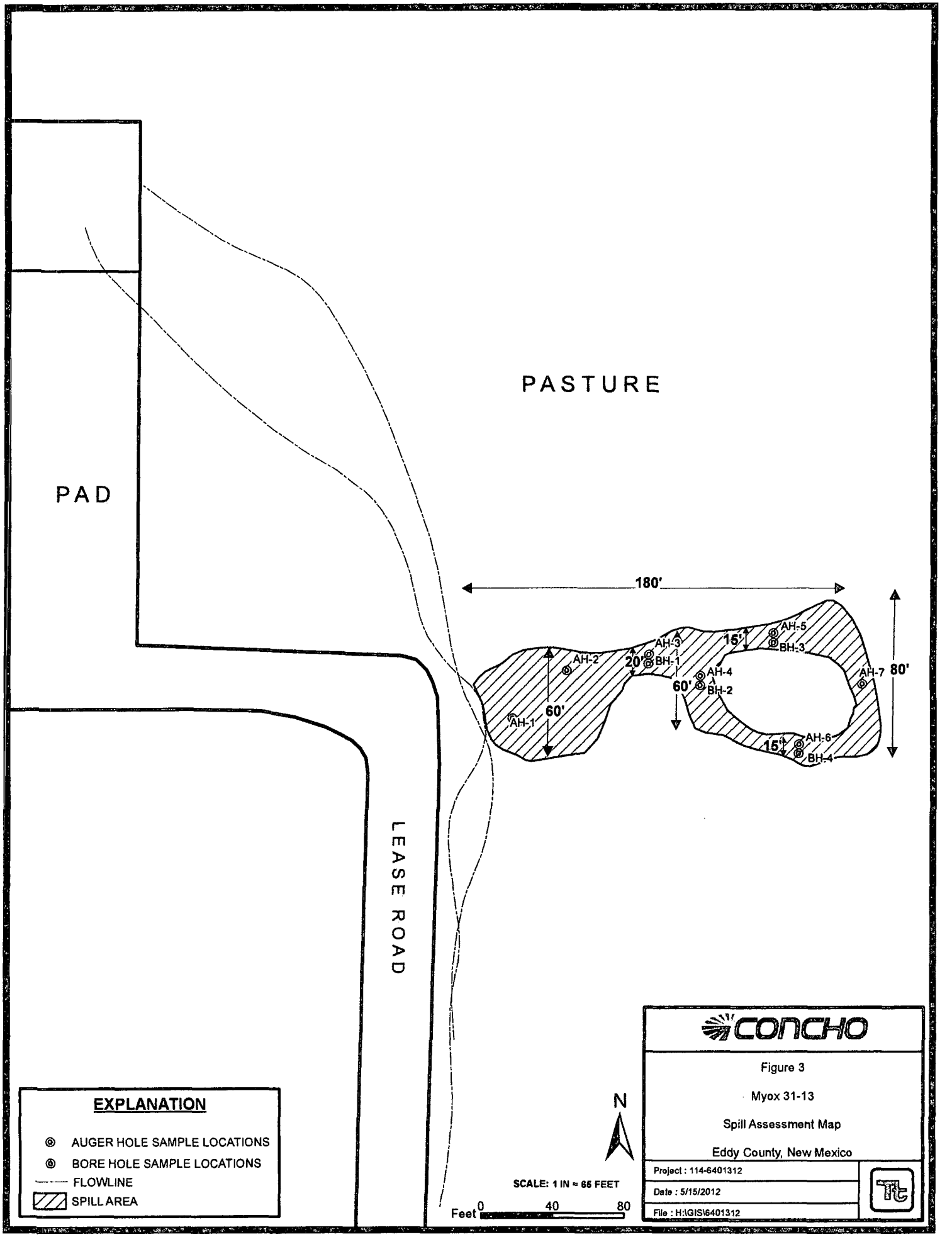
Project : 114-6401312

Date : 3/22/2012

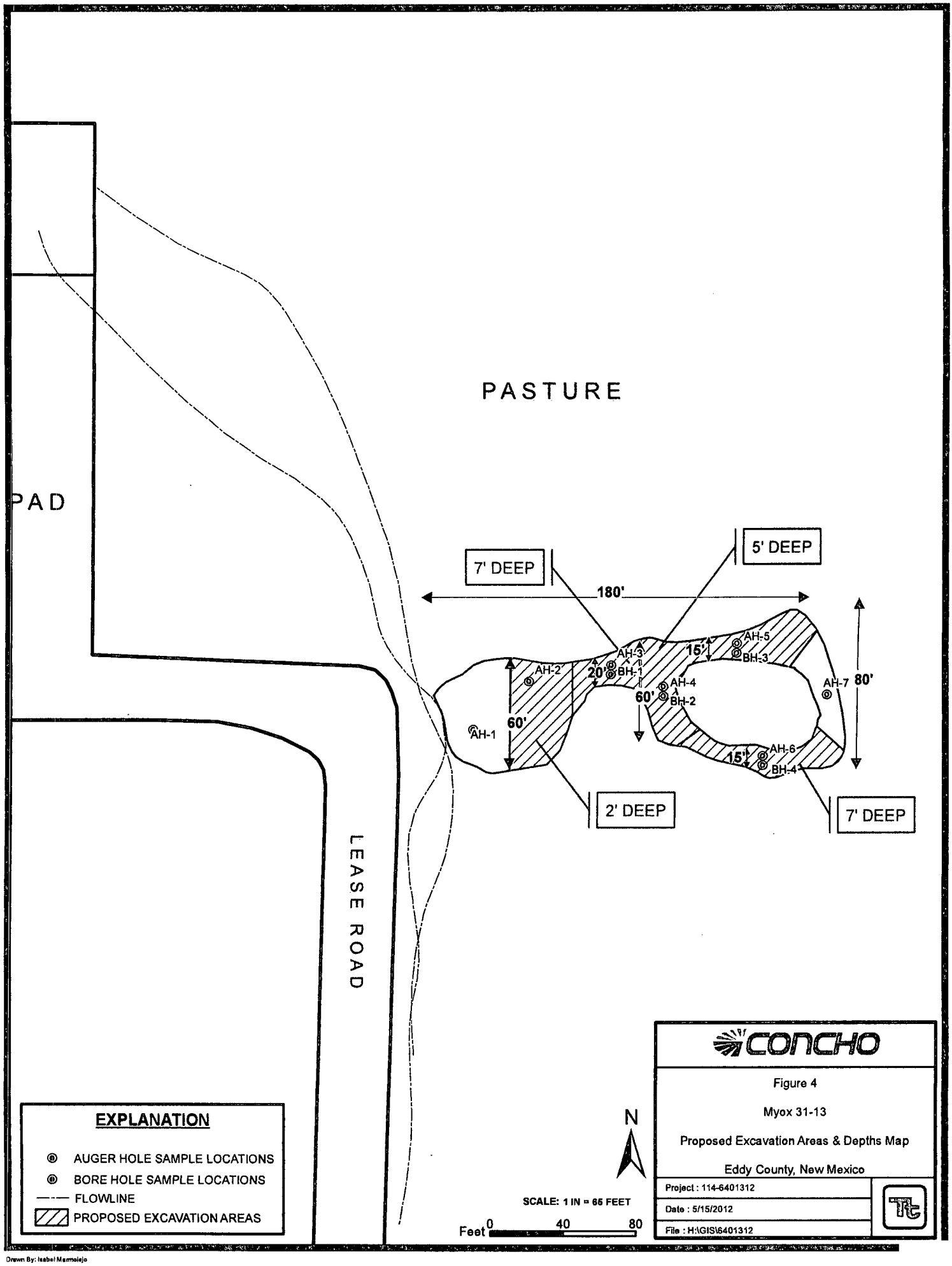
File : H:\GIS\6401312

Figure 2
Myox 31-13
Topo Map 1:24,000

COG Spill Assessment
Eddy County, New Mexico



Drawn By: Isabel Marmolejo



Drawn By: Isabel Marmolejo

Tables

Table 1
COG Operating LLC.
Myox 31-13 Well Site
Eddy County, New Mexico

Sample ID	Sample Date	Sample 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	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<200
	"	1-1.5	X		-	-	-	-	-	-	-	-	207
	"	2-2.5	X		-	-	-	-	-	-	-	-	<200
	"	3-3.5	X		-	-	-	-	-	-	-	-	<200
	"	4-4.5	X		-	-	-	-	-	-	-	-	<200
	"	5-5.5	X		-	-	-	-	-	-	-	-	<200
AH-2	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	11,800
	"	1-1.5	X		-	-	-	-	-	-	-	-	10,600
	"	2-2.5	X		-	-	-	-	-	-	-	-	608
	"	3-3.5	X		-	-	-	-	-	-	-	-	<200
	"	4-4.5	X		-	-	-	-	-	-	-	-	218
	"	5-5.5	X		-	-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
Myox 31-13 Well Site
Eddy County, New Mexico

Sample ID	Sample Date	Sample 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	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	15,700
	"	1-1.5	X		-	-	-	-	-	-	-	-	13,300
	"	2-2.5	X		-	-	-	-	-	-	-	-	11,700
	"	3-3.5	X		-	-	-	-	-	-	-	-	11,600
	"	4-4.5	X		-	-	-	-	-	-	-	-	8,310
	"	5-5.5	X		-	-	-	-	-	-	-	-	1,280
BH-1	4/16/2012	0-1	X		-	-	-	-	-	-	-	-	18,300
	"	2-3	X		-	-	-	-	-	-	-	-	14,400
	"	4-5	X		-	-	-	-	-	-	-	-	6,590
	"	6-7	X		-	-	-	-	-	-	-	-	2,210
	"	9-10	X		-	-	-	-	-	-	-	-	1,470
	"	14-15	X		-	-	-	-	-	-	-	-	986
	"	19-20	X		-	-	-	-	-	-	-	-	1,020
	"	24-25	X		-	-	-	-	-	-	-	-	719
	"	29-30	X		-	-	-	-	-	-	-	-	405
	"	39-40	X		-	-	-	-	-	-	-	-	258

Table 1
COG Operating LLC.
Myox 31-13 Well Site
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-4	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	16,000
	"	1-1.5	X		-	-	-	-	-	-	-	-	17,600
	"	2-2.5	X		-	-	-	-	-	-	-	-	15,700
	"	3-3.5	X		-	-	-	-	-	-	-	-	12,600
	"	4-4.5	X		-	-	-	-	-	-	-	-	10,300
	"	5-5.5	X		-	-	-	-	-	-	-	-	2,580
BH-2	4/16/2012	0-1	X		-	-	-	-	-	-	-	-	2,910
	"	2-3	X		-	-	-	-	-	-	-	-	5,620
	"	4-5	X		-	-	-	-	-	-	-	-	7,450
	"	6-7	X		-	-	-	-	-	-	-	-	1,280
	"	9-10	X		-	-	-	-	-	-	-	-	1,740
	"	14-15	X		-	-	-	-	-	-	-	-	743
	"	19-20	X		-	-	-	-	-	-	-	-	991
	"	24-25	X		-	-	-	-	-	-	-	-	827
	"	29-30	X		-	-	-	-	-	-	-	-	319
	"	39-40	X		-	-	-	-	-	-	-	-	177

Table 1
COG Operating LLC.
Myox 31-13 Well Site
Eddy County, New Mexico

Sample ID	Sample Date	Sample 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-5	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	12,700
	"	1-1.5	X		-	-	-	-	-	-	-	-	14,800
	"	2-2.5	X		-	-	-	-	-	-	-	-	14,800
	"	3-3.5	X		-	-	-	-	-	-	-	-	9,350
	"	4-4.5	X		-	-	-	-	-	-	-	-	7,230
	"	5-5.5	X		-	-	-	-	-	-	-	-	9,830
BH-3	4/16/2012	0-1	X		-	-	-	-	-	-	-	-	9,360
	"	2-3	X		-	-	-	-	-	-	-	-	13,900
	"	4-5	X		-	-	-	-	-	-	-	-	10,400
	"	6-7	X		-	-	-	-	-	-	-	-	922
	"	9-10	X		-	-	-	-	-	-	-	-	1,430
	"	14-15	X		-	-	-	-	-	-	-	-	1,170
	"	19-20	X		-	-	-	-	-	-	-	-	1,180
	"	24-25	X		-	-	-	-	-	-	-	-	1,100
	"	29-30	X		-	-	-	-	-	-	-	-	587
	"	39-40	X		-	-	-	-	-	-	-	-	304

Table 1
COG Operating LLC.
Myox 31-13 Well Site
Eddy County, New Mexico

Sample ID	Sample Date	Sample 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-6	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	14,600
	"	1-1.5	X		-	-	-	-	-	-	-	-	14,000
	"	2-2.5	X		-	-	-	-	-	-	-	-	10,200
	"	3-3.5	X		-	-	-	-	-	-	-	-	5,570
	"	4-4.5	X		-	-	-	-	-	-	-	-	696
	"	5-5.5	X		-	-	-	-	-	-	-	-	1,190
BH-4	4/16/2012	0-1	X		-	-	-	-	-	-	-	-	17,600
	"	2-3	X		-	-	-	-	-	-	-	-	13,200
	"	4-5	X		-	-	-	-	-	-	-	-	1,560
	"	6-7	X		-	-	-	-	-	-	-	-	2,380
	"	9-10	X		-	-	-	-	-	-	-	-	1,110
	"	14-15	X		-	-	-	-	-	-	-	-	1,050
	"	19-20	X		-	-	-	-	-	-	-	-	849
	"	24-25	X		-	-	-	-	-	-	-	-	679
	"	29-30	X		-	-	-	-	-	-	-	-	506
	"	39-40	X		-	-	-	-	-	-	-	-	288

Table 1
COG Operating LLC.
Myox 31-13 Well Site
Eddy County, New Mexico

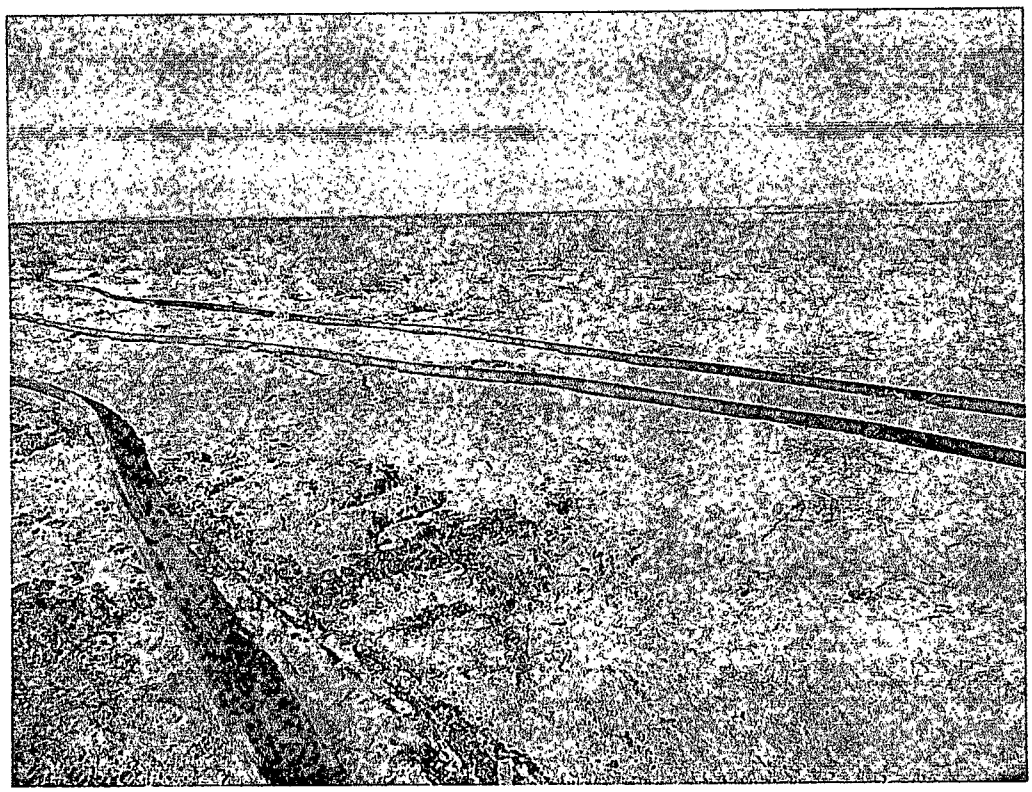
Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-7	3/7/2012	0-1	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<200
	"	1-1.5	X		-	-	-	-	-	-	-	-	<200
	"	2-2.5	X		-	-	-	-	-	-	-	-	<200
	"	3-3.5	X		-	-	-	-	-	-	-	-	<200
	"	4-4.5	X		-	-	-	-	-	-	-	-	<200
	"	5-5.5	X		-	-	-	-	-	-	-	-	330

(-) Not Analyzed

Proposed Excavation Depths

Liner Installation and Depth

COG Operating LLC
Myox 31-13
Eddy County, New Mexico
Assessment Date: March 24, 2011



View north – Near fire and source of flowline rupture

View east – Terrain of impacted area

Appendix A

1312

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Myox 31-13	Facility Type	Well location

Surface Owner State	Mineral Owner	Lease No. (API#) 30-015-37497

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
SE - P	31	25S	28E					Eddy

Latitude 32 04.821 Longitude 104 07.083

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 20bbls	Volume Recovered None
Source of Release Poly water line	Date and Hour of Occurrence 02/10/2012	Date and Hour of Discovery 02/10/2012 6:00 p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Heat from a gas fire melted a nearby poly produced water line causing the release. The bad section of the poly line has been replaced.

Describe Area Affected and Cleanup Action Taken.*

Initially roughly 20bbls were released from the poly line and we were unable to recover any fluid with a vacuum truck. The spill area is located in the pasture area off of the well location. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Josh Russo	Approved by District Supervisor:	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached ☐
Date: 02/23/2012 Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

Water Well Data
Average Depth to Groundwater (ft)
COG - Myox 31-13
Eddy County, New Mexico

24 South 27 East

6	5	4	3	2	1
7	8 **26**	9 **43**	10	11	12 **27**
18 **34**	17	16	15	14	13 **31**
19	20	21	22 **70**	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South 28 East

6 **70**	5 **30**	4 **30**	3	2 **55**	1 **60**
7	8 **50**	9	10 **17**	11 **20**	12 **73**
18	17 **42**	16 **29**	15 **18**	14 **52**	13 **34**
19	20 **48**	21	22	23	24
30	29	28	27	26 **40**	25
31	32	33	34	35	36

24 South 29 East

6	5	4	3	2	1
7 **160**	8	9	10	11	12
18	17	16 **18**	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South 27 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 **19**	34	35	36

25 South 28 East

6	5	4 **35**	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20 **96**	21	22	23	24
30	29 **15**	28 **90**	27	26	25
31	32	33	34	35	36 **40**

Pecos River

25 South 29 East

6 **40**	5	4	3	2	1
7	8	9	10 **40**	11	12
18	17	16	15 **60**	14	13
19	20	21	22	23	24
30 **30**	29	28	27	26	25
31	32	33	34	35	36

26 South 27 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 **50**	23	24
30	29	28	27	26	25
31	32	33	34	35	36

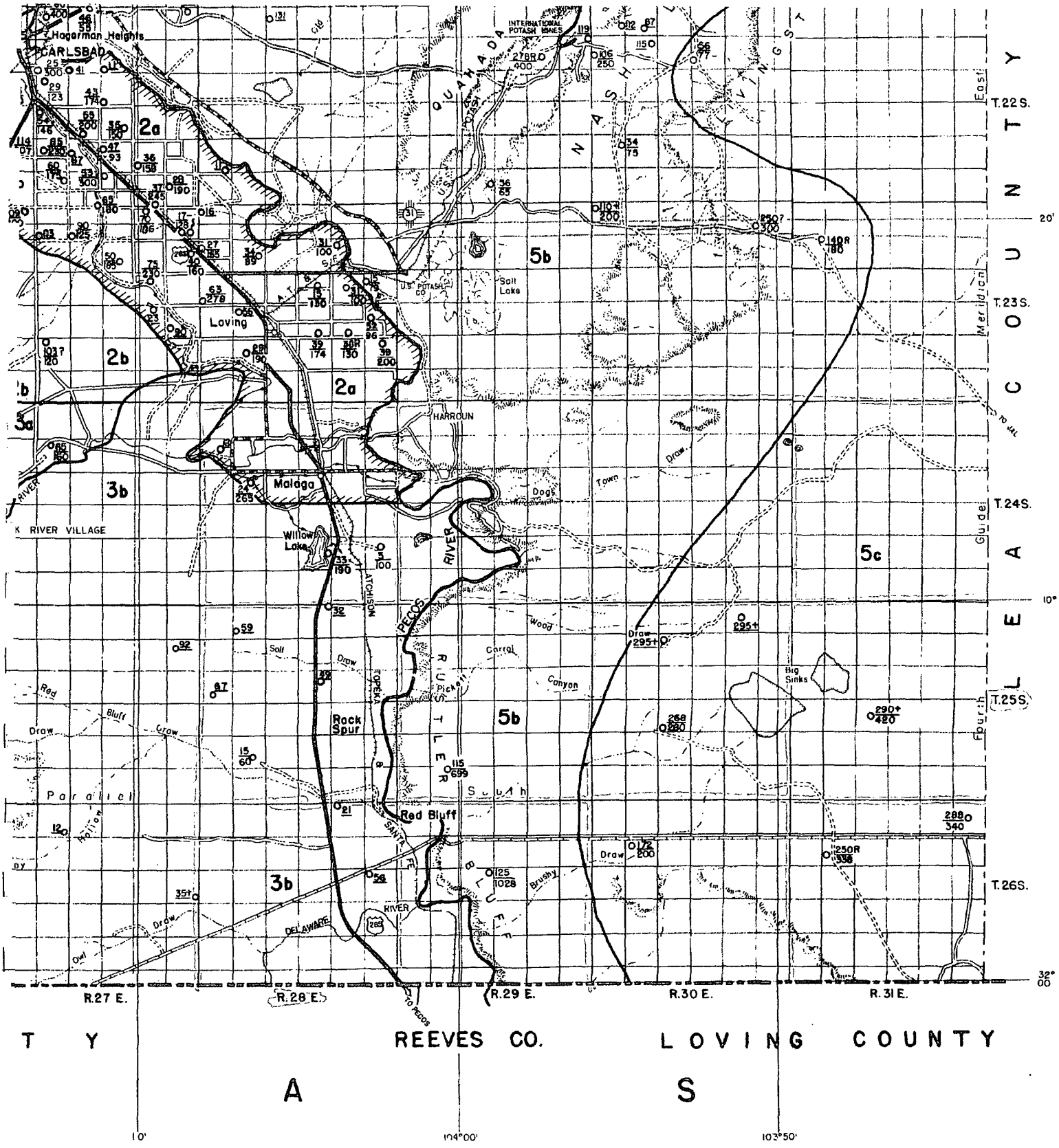
26 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12 **100**
18	17	16	15	14 **120**	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 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 **57** **69**	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
- Site Location



BILITY OF GROUND WATER

NEW MEXICO

Note: Most well depths are reported. Depths to water are measured except those followed by the letter R which are reported. Measurements made 1947 to 1950.

10 MILES

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	POD Subbasin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01668			ED		3	3	12	26S	28E	589957	3546554*	250	100	150
C 02160			ED	4	1	2	14	26S	28E	589243	3546044*	300	120	180
C 02160 S			ED	1	1	2	14	26S	28E	589043	3546244*	300	120	180
C 02160 S2			ED	1	1	2	14	26S	28E	589043	3546244*	300	120	180
C 02160 S3			ED	2	2	1	14	26S	28E	588834	3546241*	300	120	180
C 02160 S4			ED	2	2	1	14	26S	28E	588834	3546241*	300	120	180
C 02160 S5			ED	1	1	1	14	26S	28E	588225	3546237*	300	120	180
C 02160 S6			ED	3	3	1	14	26S	28E	588232	3545635*	300	120	180
C 02160 S7			ED	3	3	1	22	26S	28E	586638	3543998*	300	120	180
C 02160 S8			ED	2	3	3	12	26S	28E	590056	3546653*	200	120	80
C 02160 S9			ED	3	3	2	02	26S	28E	589020	3548868*	300	120	180
C 02477		CUB	ED		1	1	03	26S	28E	586687	3549347*	150		
C 02478		CUB	ED		2	1	05	26S	28E	583848	3549325*	100		
C 02479		CUB	ED		4	4	10	26S	28E	587909	3546534*	200		
C 02480		CUB	ED		4	4	10	26S	28E	587909	3546534*	150		
C 02481		CUB	ED		1	1	14	26S	28E	588326	3546138*	200		
C 02894		C	ED	2	2	3	12	26S	28E	590458	3547061*	240		
C 02924		C	ED	1	3	2	11	26S	28E	589032	3547451*			

Average Depth to Water: **118 feet**

Minimum Depth: **100 feet**

Maximum Depth: **120 feet**

Record Count: 18

PLSS Search:

Township: 26S **Range:** 28E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02218		CUB	ED	4	1	4	07	26S	27E	573039	3546725*	35		
C 02219		CUB	ED	4	4	4	05	26S	27E	575033	3547948*	35		
C 02474		CUB	ED		4	3	02	26S	27E	578964	3548029*	100		
C 02475		CUB	ED		2	4	13	26S	27E	581450	3545252*	100		
C 02476		CUB	ED		4	1	24	26S	27E	580653	3544032*	150		
C 02930		C	ED	2	3	4	22	26S	27E	577938	3543284*	100	50	50

Average Depth to Water: **50 feet**

Minimum Depth: **50 feet**

Maximum Depth: **50 feet**

Record Count: 6

PLSS Search:

Township: 26S **Range:** 27E

***UTM location was derived from PLSS - see Help**

5/30/12 12:08 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01278		C	ED		4	3	28	25S	28E	585470	3551338*	205	90	115
C 01411		C	ED	4	4	2	04	25S	28E	586289	3558522*	69	35	34
C 01453		C	ED		1	2	26	25S	28E	589096	3552612*	70	40	30
C 01522		C	ED			1	22	25S	28E	586843	3554004*	150		
C 01573 POD1		C	ED	3	1	4	20	25S	28E	584144	3553361	176	96	80
C 02668		C	ED	2	1	2	09	25S	28E	585890	3557525*	150		
C 03263 POD1			ED	1	1	1	07	25S	28E	581628	3557501*	133		

Average Depth to Water: **65 feet**

Minimum Depth: **35 feet**

Maximum Depth: **96 feet**

Record Count: 7

PLSS Search:

Township: 25S **Range:** 28E

***UTM location was derived from PLSS - see Help**

5/30/12 12:06 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been *replaced & no longer* serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Column
C 02588		C	ED	3	4	3	33	25S	27E	575645	3549575*	81	19	62
C 03261 POD1			ED	3	2	1	20	25S	27E	574007	3554006*	351		
C 03262 POD1			ED	2	1	2	22	25S	27E	577837	3554244*	75		

Average Depth to Water: **19 feet**

Minimum Depth: **19 feet**

Maximum Depth: **19 feet**

Record Count: 3

PLSS Search:

Township: 25S **Range:** 27E

***UTM location was derived from PLSS - see Help**

5/30/12 12:07 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Appendix C

Summary Report

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

Report Date: March 16, 2012

Work Order: 12030929

Project Location: Eddy Co., NM
Project Name: COG/Myox 31-13 Well Site
Project Number: 114-6401312

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
290984	AH-1 0-1'	soil	2012-03-07	00:00	2012-03-09
290985	AH-1 1-1.5'	soil	2012-03-07	00:00	2012-03-09
290986	AH-1 2-2.5'	soil	2012-03-07	00:00	2012-03-09
290987	AH-1 3-3.5'	soil	2012-03-07	00:00	2012-03-09
290988	AH-1 4-4.5'	soil	2012-03-07	00:00	2012-03-09
290989	AH-1 5-5.5'	soil	2012-03-07	00:00	2012-03-09
290990	AH-2 0-1'	soil	2012-03-07	00:00	2012-03-09
290991	AH-2 1-1.5'	soil	2012-03-07	00:00	2012-03-09
290992	AH-2 2-2.5'	soil	2012-03-07	00:00	2012-03-09
290993	AH-2 3-3.5'	soil	2012-03-07	00:00	2012-03-09
290994	AH-2 4-4.5'	soil	2012-03-07	00:00	2012-03-09
290995	AH-2 5-5.5'	soil	2012-03-07	00:00	2012-03-09
290996	AH-3 0-1'	soil	2012-03-07	00:00	2012-03-09
290997	AH-3 1-1.5'	soil	2012-03-07	00:00	2012-03-09
290998	AH-3 2-2.5'	soil	2012-03-07	00:00	2012-03-09
290999	AH-3 3-3.5'	soil	2012-03-07	00:00	2012-03-09
291000	AH-3 4-4.5'	soil	2012-03-07	00:00	2012-03-09
291001	AH-3 5-5.5'	soil	2012-03-07	00:00	2012-03-09
291002	AH-4 0-1'	soil	2012-03-07	00:00	2012-03-09
291003	AH-4 1-1.5'	soil	2012-03-07	00:00	2012-03-09
291004	AH-4 2-2.5'	soil	2012-03-07	00:00	2012-03-09
291005	AH-4 3-3.5'	soil	2012-03-07	00:00	2012-03-09
291006	AH-4 4-4.5'	soil	2012-03-07	00:00	2012-03-09
291007	AH-4 5-5.5'	soil	2012-03-07	00:00	2012-03-09
291008	AH-5 0-1'	soil	2012-03-07	00:00	2012-03-09
291009	AH-5 1-1.5'	soil	2012-03-07	00:00	2012-03-09
291010	AH-5 2-2.5'	soil	2012-03-07	00:00	2012-03-09
291011	AH-5 3-3.5'	soil	2012-03-07	00:00	2012-03-09
291012	AH-5 4-4.5'	soil	2012-03-07	00:00	2012-03-09
291013	AH-5 5-5.5'	soil	2012-03-07	00:00	2012-03-09

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
291014	AH-6 0-1'	soil	2012-03-07	00:00	2012-03-09
291015	AH-6 1-1.5'	soil	2012-03-07	00:00	2012-03-09
291016	AH-6 2-2.5'	soil	2012-03-07	00:00	2012-03-09
291017	AH-6 3-3.5'	soil	2012-03-07	00:00	2012-03-09
291018	AH-6 4-4.5'	soil	2012-03-07	00:00	2012-03-09
291019	AH-6 5-5.5'	soil	2012-03-07	00:00	2012-03-09
291020	AH-7 0-1'	soil	2012-03-07	00:00	2012-03-09
291021	AH-7 1-1.5'	soil	2012-03-07	00:00	2012-03-09
291022	AH-7 2-2.5'	soil	2012-03-07	00:00	2012-03-09
291023	AH-7 3-3.5'	soil	2012-03-07	00:00	2012-03-09
291024	AH-7 4-4.5'	soil	2012-03-07	00:00	2012-03-09
291025	AH-7 5-5.5'	soil	2012-03-07	00:00	2012-03-09

	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)
290984 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
290990 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
290996 - AH-3 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
291002 - AH-4 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
291008 - AH-5 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
291014 - AH-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
291020 - AH-7 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

Sample: 290984 - AH-1 0-1'

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

Sample: 290985 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**207**	mg/Kg	4

Sample: 290986 - AH-1 2-2.5'

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

Sample: 290987 - AH-1 3-3.5'

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

Sample: 290988 - AH-1 4-4.5'

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

Sample: 290989 - AH-1 5-5.5'

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

Sample: 290990 - AH-2 0-1'

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

Sample: 290991 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**10600**	mg/Kg	4

Sample: 290992 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**608**	mg/Kg	4

Sample: 290993 - AH-2 3-3.5'

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

Sample: 290994 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**218**	mg/Kg	4

Sample: 290995 - AH-2 5-5.5'

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

Sample: 290996 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**15700**	mg/Kg	4

Sample: 290997 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**13300**	mg/Kg	4

Sample: 290998 - AH-3 2-2.5'

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

Sample: 290999 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**11600**	mg/Kg	4

Sample: 291000 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**8310**	mg/Kg	4

Sample: 291001 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1280**	mg/Kg	4

Sample: 291002 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**16000**	mg/Kg	4

Sample: 291003 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**17600**	mg/Kg	4

Sample: 291004 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**15700**	mg/Kg	4

Sample: 291005 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**12600**	mg/Kg	4

Sample: 291006 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**10300**	mg/Kg	4

Sample: 291007 - AH-4 5-5.5'

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

Sample: 291008 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**12700**	mg/Kg	4

Sample: 291009 - AH-5 1-1.5'

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

Sample: 291010 - AH-5 2-2.5'

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

Sample: 291011 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**9350**	mg/Kg	4

Sample: 291012 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**7230**	mg/Kg	4

Sample: 291013 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**9830**	mg/Kg	4

Sample: 291014 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		**14600**	mg/Kg	4

Sample: 291015 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**14000**	mg/Kg	4

Sample: 291016 - AH-6 2-2.5'

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

Sample: 291017 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**5570**	mg/Kg	4

Sample: 291018 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**696**	mg/Kg	4

Sample: 291019 - AH-6 5-5.5'

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

Sample: 291020 - AH-7 0-1'

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

Sample: 291021 - AH-7 1-1.5'

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

Sample: 291022 - AH-7 2-2.5'

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

Sample: 291023 - AH-7 3-3.5'

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

Sample: 291024 - AH-7 4-4.5'

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

Sample: 291025 - AH-7 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**330**	mg/Kg	4