

SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	GJ West Coop SWD					
Company:	COG Operating LLC					
Section, Township and Range	Unit B	Sec 23	T17S	R29E		
Lease Number:						
County:	Eddy County					
GPS:	32.81175° N			104.07734° W		
Surface Owner:	State					
Mineral Owner:						
Directions:	From the intersection of CR 219 and Hwy 82, travel 5.5 miles down Hwy 82, turn left on CR 212 and travel 0.2 miles, turn right and travel 0.1 miles to site.					

Release Data:	Spill One	Spill Two	Spill Three
Date Released:	5/6/2010	9/17/2010	3/28/2012
Type Release:	Produced Water	Produced Water	Produced Water
Source of Contamination:	Transfer Pump	Injection Line	Manifold Coupling
Fluid Released:	100 bbls	100 bbls	50 bbls
Fluids Recovered:	10 bbls	50 bbls	25 bbls
Release Data:	Spill Four	Spill Five	Spill Six
Date Released:	6/6/2012	7/9/2012	10/9/2012
Type Release:	Produced Water	Produced Water	Produced Water
Source of Contamination:	Hole in Casing	Trunkline	Steel Line
Fluid Released:	15 bbls	10 bbls	7 bbls
Fluids Recovered:	12 bbls	2 bbls	5 bbls

Official Communication:

Name:	Robert McNeil	Ike Tavaréz
Company:	COG Operating, LLC	Tetra Tech
Address:	One Concho Center	4000 N. Big Spring St
P.O. Box	600 W. Illinois Ave.	Ste 401
City:	Midland, Texas 79701	Midland, Texas 79705
Phone number:	(432) 686-3023	(432) 687-8110
Fax:	(432) 684-7137	
Email:	rmcneil@conchoresources.com	ike.tavarez@tetrattech.com

Ranking Criteria

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

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



TETRA TECH

December 11, 2014

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

Re: Closure Request for the COG Operating LLC., GJ West Coop, Unit B, Section 28, Township 17 South, Range 29 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 GJ West Coop located in Unit B, Section 28, Township 17 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.81169°, W 104.07727°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Reports, COG had six (6) produced water spills in the same area between May 2010 and October 2012. The spills are summarized below. All of the initial C-141 forms are enclosed in Appendix A.

Spill 1

The first release was discovered on May 6, 2010, and released approximately one hundred (100) barrels of produced water from a transfer pump. To alleviate the problem, COG personnel repaired the transfer pump. Ten (10) barrels of standing fluids were recovered. The spill initiated on the pad and traveled south parallel to the lease road for 230' by 25' wide.

Spill 2

The second release was discovered on September 17, 2010, and released approximately one hundred (100) barrels of produced water from the nipple on an injection line. To alleviate the problem, COG personnel replaced the old fittings with

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Tel 432.682.4559 Fax 432.682.3946 1910 North Big Spring, Midland, TX 79705
www.tetrattech.com



new fittings. Fifty (50) barrels of standing fluids were recovered. The spill initiated on the pad and traveled south parallel to the lease road for 230' by 25' wide, it continued off the pad into the pasture for 610' by 30' which grew to 150' wide.

Spill 3

The third release was discovered on March 28, 2012 and released approximately fifty (50) bbls of produced water from a failed injection manifold coupling. To alleviate the problem the injection manifold was replaced. Twenty five (25) bbls of produced water were recovered. The spill traveled into the pasture and pooled in an area approximately 15' x 50' in size.

Spill 4

The fourth release was discovered on June 6, 2012 and released approximately fifteen (15) bbls of produced water from the casing, which developed a hole. To alleviate the problem a clamp was placed on the casing until it was repaired. Twelve (12) bbls of standing fluid were recovered.

Spill 5

The fifth release was discovered on July 9, 2012 and released approximately ten (10) bbls of produced water with some skim oil from a corroded trunk line. To alleviate the problem the steel flowline was replaced. Two (2) bbls of standing fluids were recovered.

Spill 6

The sixth release was discovered on October 9, 2012 and released approximately seven (7) bbls of produced water with some skim oil from a corroded steel line. To alleviate the problem a temporary clamp was installed on the line until it was replaced.

Groundwater

No water wells were listed within Section 21. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 150' below surface. The groundwater information 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

Auger holes

On May 24, 2010, Tetra Tech personnel inspected and sampled the first spill area. A total of four (4) auger holes (AH-1 through AH-4) were installed using a stainless steel hand auger to assess the impacted soils. On September 4, 2010, Tetra Tech personnel inspected and sampled the second spill area. A total of six (6) auger holes (AH-1 through AH-6) 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.

All of the samples were below the RRAL's for BTEX and TPH, except for the area of AH-2, AH-4 and AH-6. These areas showed shallow TPH impact above the RRAL, but were vertically defined. Elevated chloride concentrations were detected at AH-1 and AH-4 for the 1st spill and AH-1, AH-3 and AH-5 for the 2nd spill. In order to define extents, boreholes were installed to assess the impacted areas.

Boreholes

On December 6, 2010, Tetra Tech personnel were onsite to supervise the installation of the boreholes to evaluate the impacted areas and install bore holes. Utilizing an air rotary drilling rig, Tetra Tech personnel supervised and collected samples. A total of twelve (12) bore holes (BH-1 through BH-12) were installed. The borehole results are summarized in Table 1. Due to numerous surface flow lines in the area, the drilling rig did have access issue at some the impacted areas.

Referring to Table 1, borehole (BH-11) showed a decline of 15,600 mg/kg (10') to 2,230 mg/kg (20'). BH-10 showed a decline of 9,310 mg/kg (0-1') to 2,660 mg/kg at 25' and BH-7 showed a decline of 9,200 mg/kg to 4,580 mg/kg at 15'. Additionally, elevated chloride concentrations for BH-8 showed a significant decline from 10,800 mg/kg (20') to 3,490 mg/kg (25'), BH-6 showed a decline of 9,640 mg/kg (15') to 3,100 mg/kg at 20', BH-4 showed a decline of 11,800 mg/kg (15') to 3,000 at 25', BH-3 showed a decline of 8,340 (7') mg/kg to 3,510 mg/kg..



Onsite Meeting

On May 16, 2014, COG and Tetra Tech met with Mike Bratcher with the NMOCD onsite to discuss the spills and access issues at the site. Multiple releases had occurred at the site that migrated and overlapped south into the pasture where the area is congested with multiple surface flow lines.

As discussed in the field, proper excavation cannot be completed at the site due to all the surface flow lines in the area. Due to safety concerns, COG recommended deferring the spill area. However, Mr. Bratcher stated that some excavation would be required in the areas of AH-4, AH-5 and AH-6 that are somewhat accessible and the additional areas with some hydrocarbon staining could be worked in-situ. The remaining impacted areas not accessible would then be deferred.

Site Remediation

In October 28, 2014, Tetra Tech supervised the removal of impacted soil. As proposed in the work plan, the excavated areas are as highlighted (green) in Table 1 and shown on Figure 4. Due to the limited area and access issues, the areas of AH-4 and AH-5 were excavated to a depth of approximately 3.0' to 4.0' below surface and capped with a 40 mil plastic liner. Due to safety concerns, the area of AH-6, southeast of the SWD, could be excavated due to the multiple surface lines in the area.

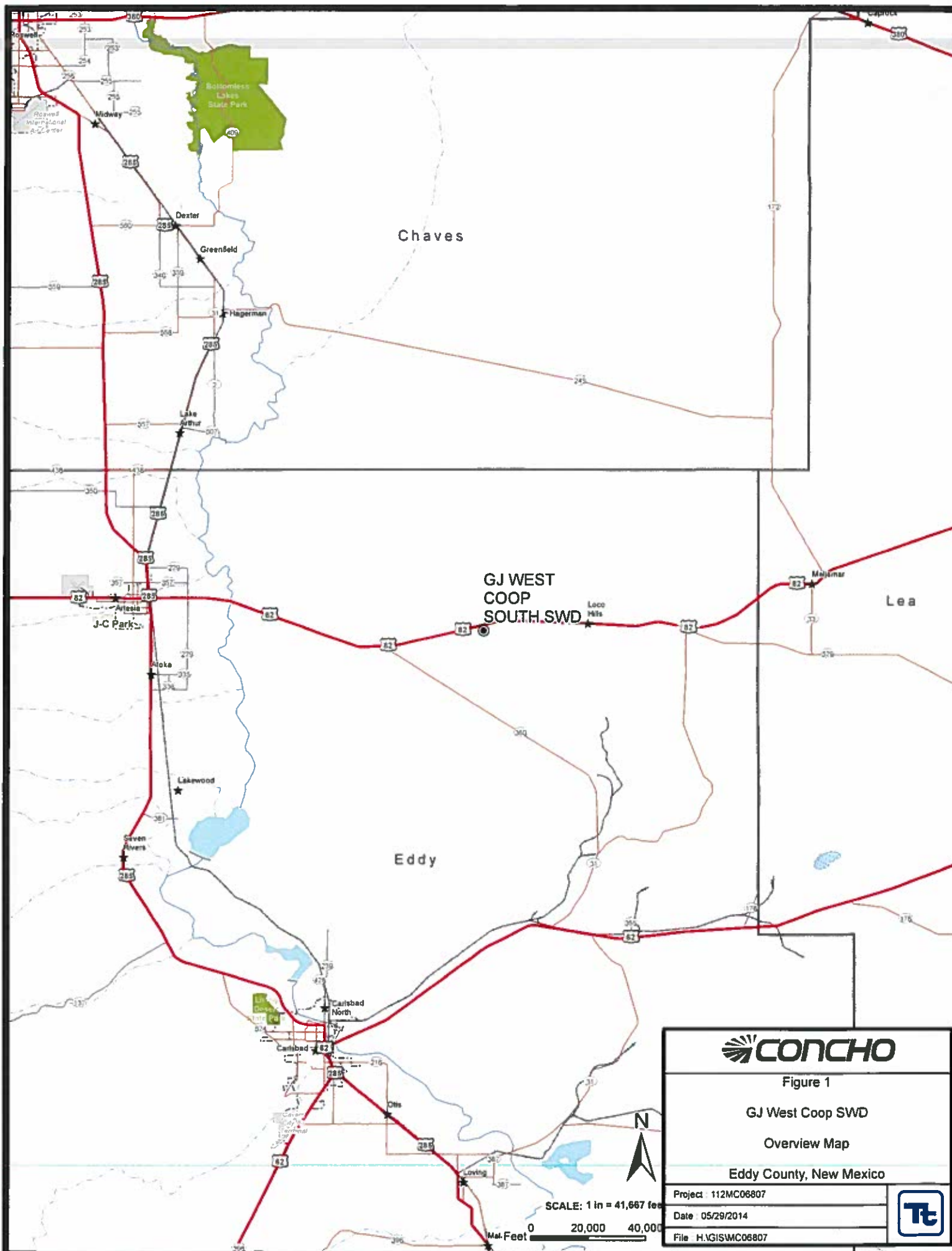
Once the areas were excavated to the appropriate depths, the excavation was lined and backfilled with clean soil. Approximately 2,300 cubic yards of material was hauled to proper disposal.

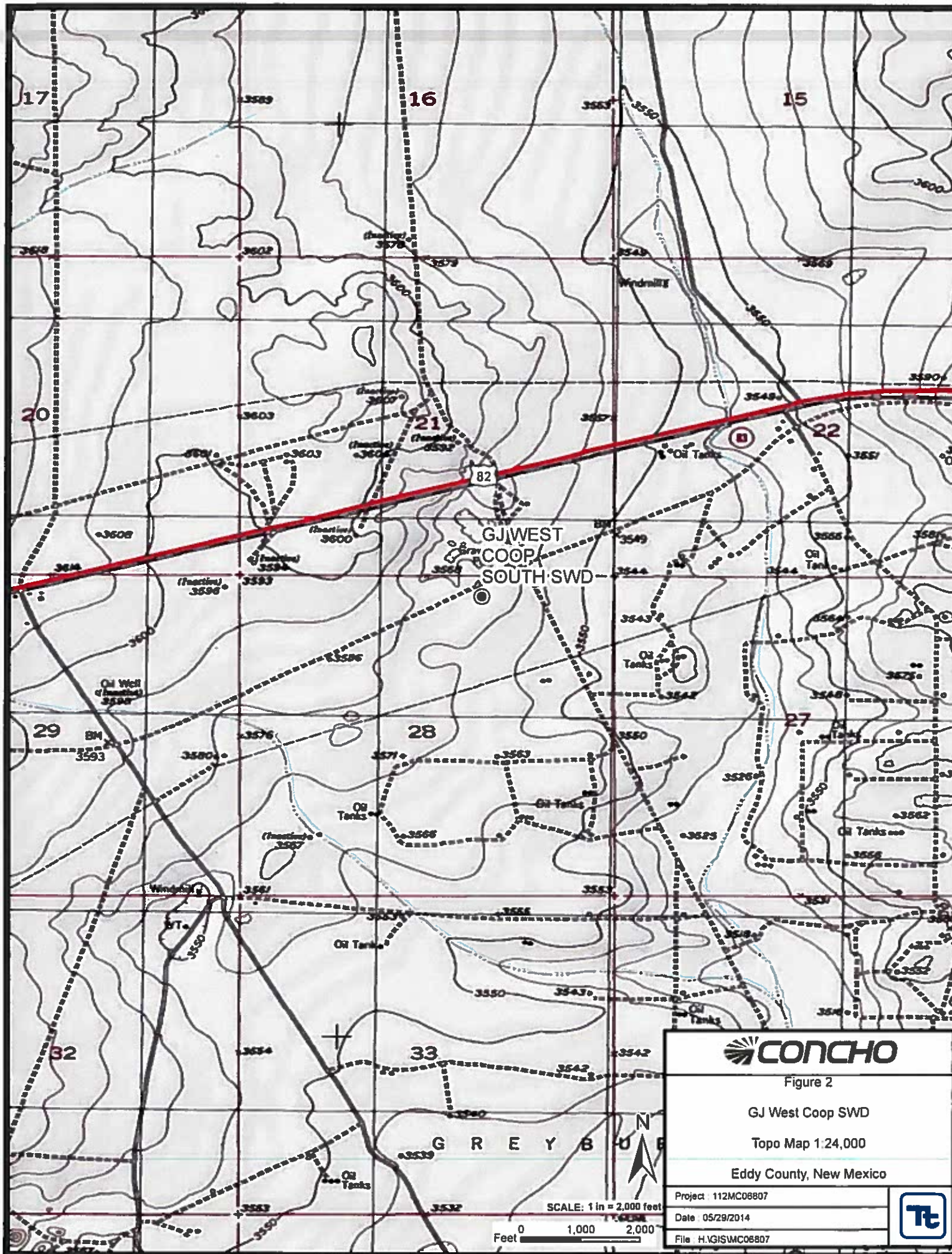
Based on the limited remediation performed, COG request closure of the site. The remaining impacted soil will be deferred due to the surface lines and limited access to the soil. A Final C-141's are included in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

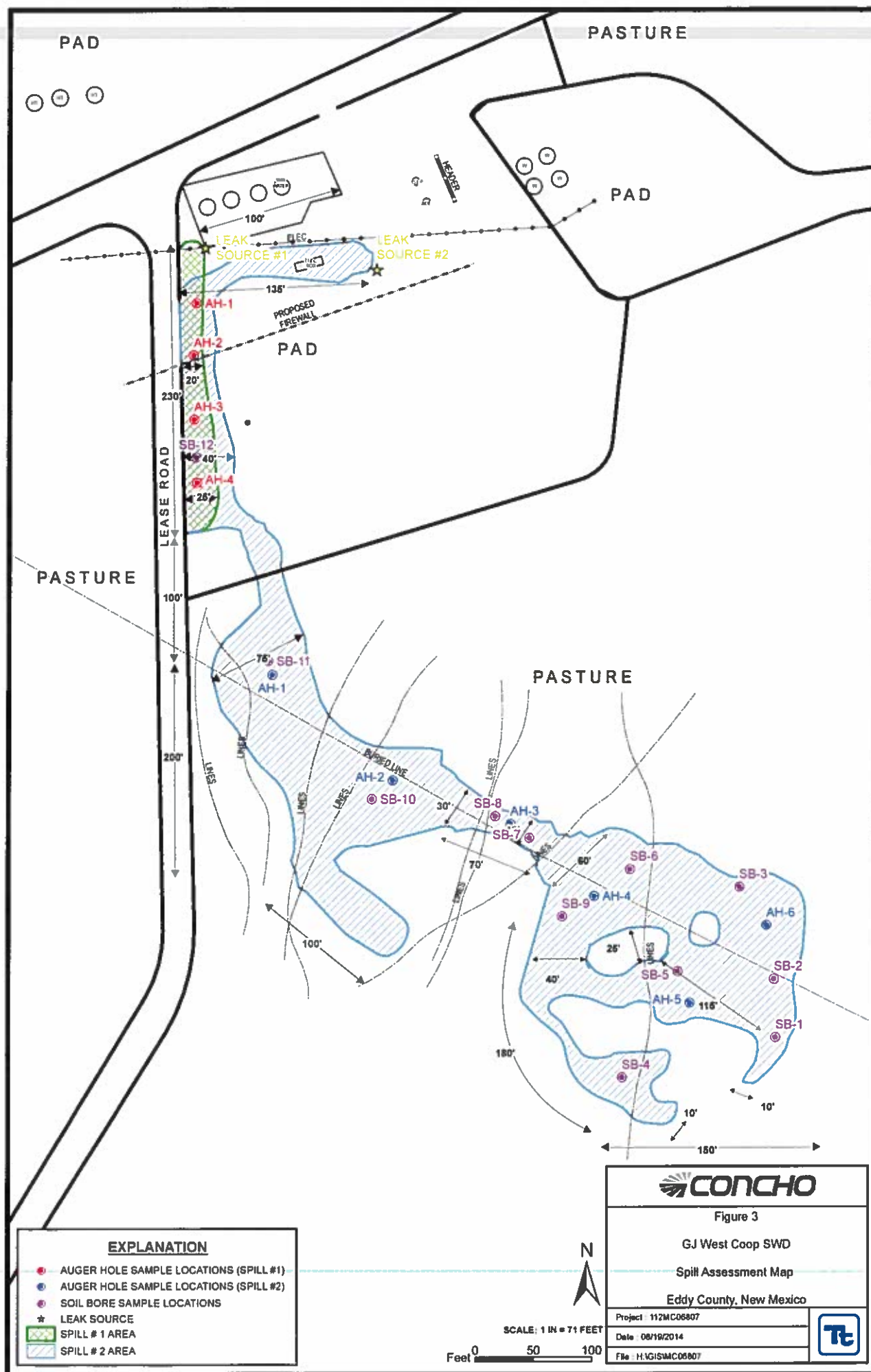
Respectfully submitted,
TETRA TECH

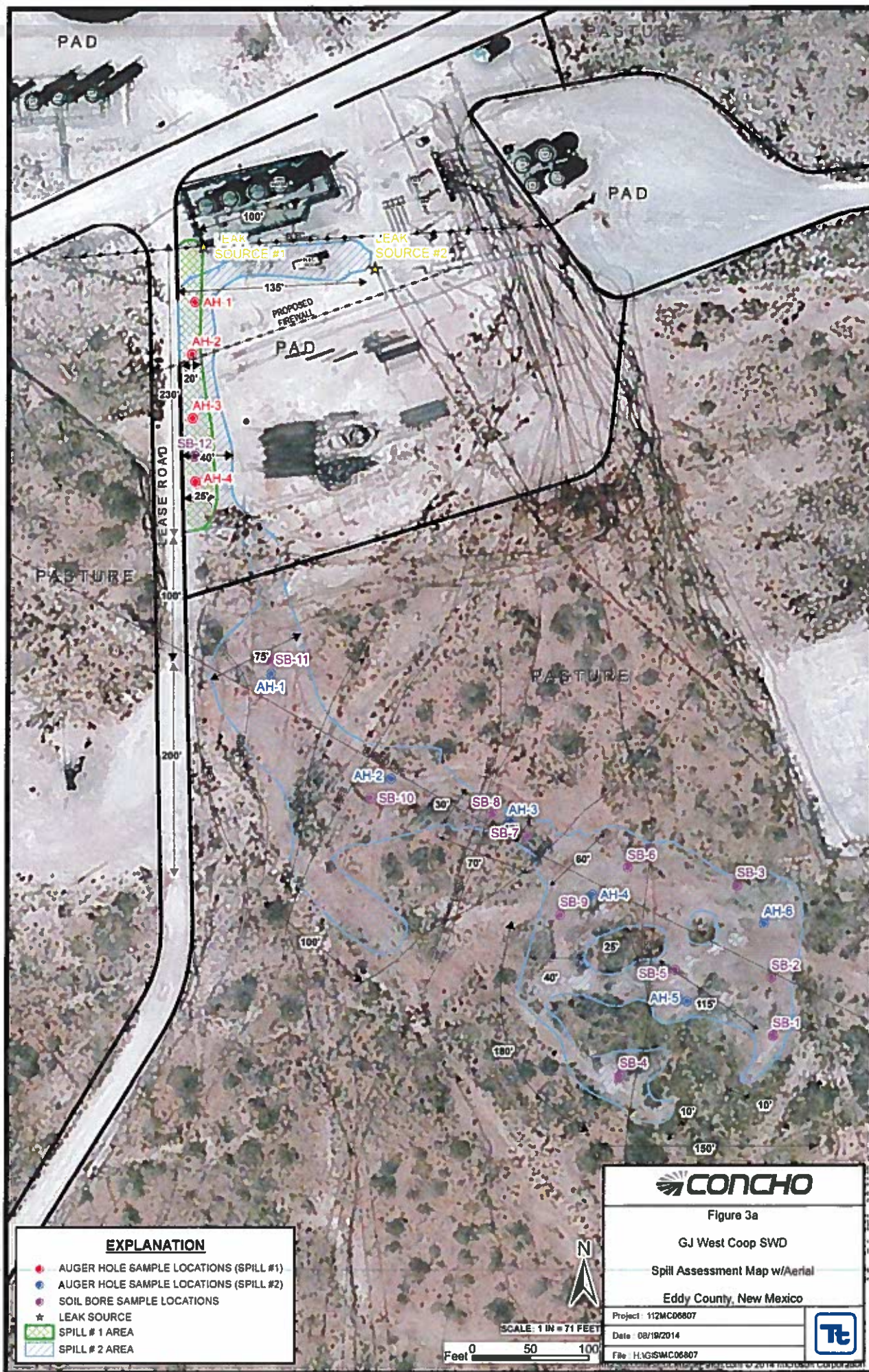
Ike Tavarez, PG
Senior Project Manager

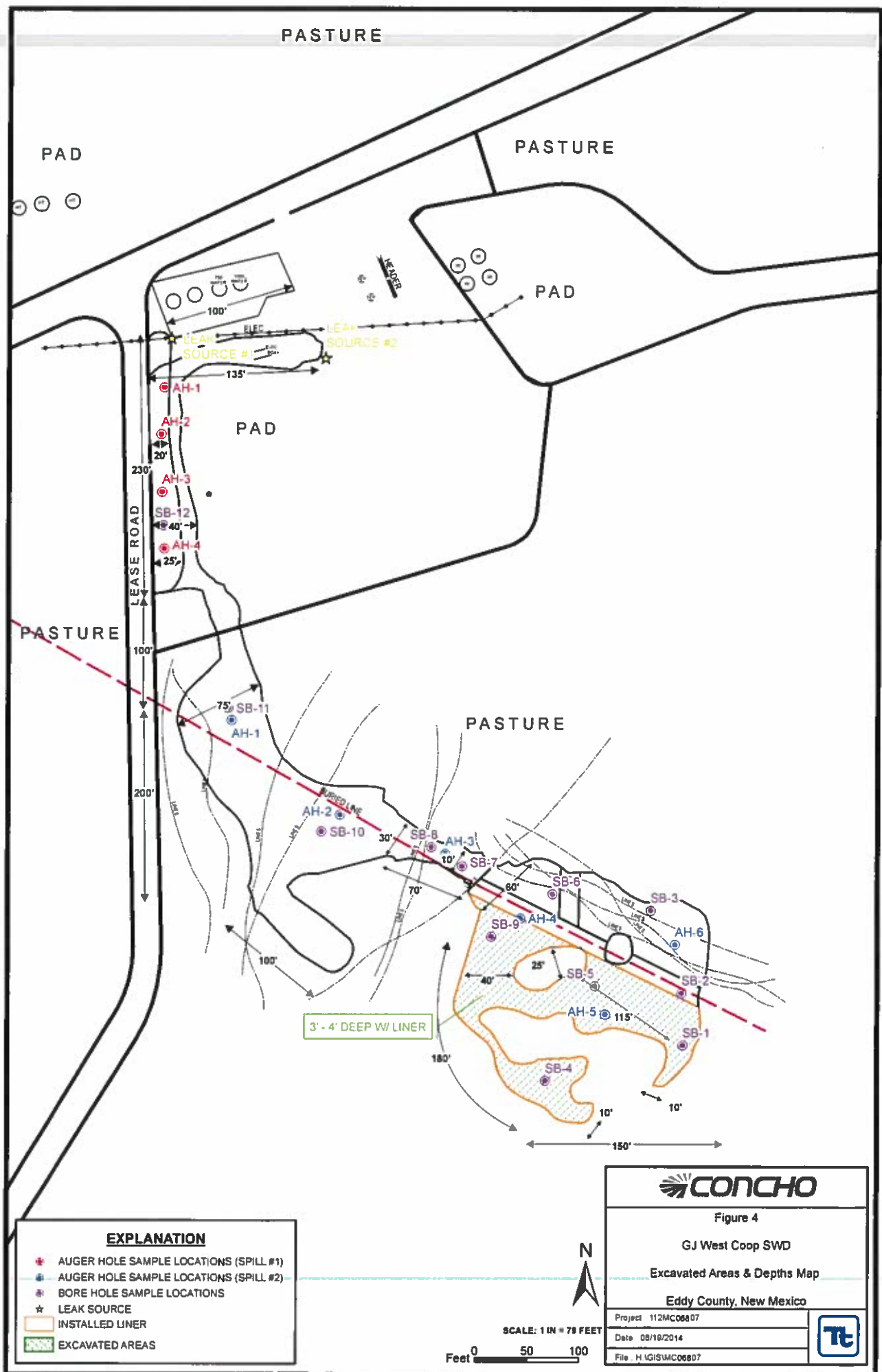
FIGURES











PHOTOGRAPHS

COG Operating LLC
GJ West Coop
Eddy County, New Mexico



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View West – Along COG buried water line at SB-1 and SB- 5



View North– Area of SB-9

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View South – SB-9 and SB-4



View North West – SB-4

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View North – Backfill area of SB-1 and SB-5



View West – Backfill area of AH-5 and SB-5

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View West – Backfilled area of SB-1 and SB-5



View South– Backfilled area of SB-9 and SB-4

TABLES

Table 1
COG Operating LLC.
GJ West CO-OP South Water Distribution/Injection Line
1st and 2nd Spill
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-1 1st Spill	5/24/2010	0-1'		X		<1.00	<50.0	<50.0	-	-	-	-	7,520
		1-1.5'		X		-	-	-	-	-	-	-	2,950
		2-2.5'		X		-	-	-	-	-	-	-	4,830
		3-3.5'		X		-	-	-	-	-	-	-	5,670
		4-4.5'		X		-	-	-	-	-	-	-	5,290
		5-5.5'		X		-	-	-	-	-	-	-	5,560
		6-6.5'		X		-	-	-	-	-	-	-	6,040
		7-7.5'		X		-	-	-	-	-	-	-	6,410
		8-8.5'		X		-	-	-	-	-	-	-	6,000
		9-9.5'		X		-	-	-	-	-	-	-	6,300
AH-2 1st Spill	5/24/2010	0-1'		X		17.20	77.30	94.50	-	-	-	-	11,100
		1-1.5'		X		-	-	-	-	-	-	-	11,000
		2-2.5'		X		-	-	-	-	-	-	-	3,220
		3-3.5'		X		-	-	-	-	-	-	-	3,490
		4-4.5'		X		-	-	-	-	-	-	-	4,610
		5-5.5'		X		-	-	-	-	-	-	-	4,520
		6-6.5'		X		-	-	-	-	-	-	-	4,310
		7-7.5'		X		-	-	-	-	-	-	-	2,290
		8-8.5'		X		-	-	-	-	-	-	-	2,570
		9-9.5'		X		-	-	-	-	-	-	-	3,150
AH-3	5/24/2010	0-1'		X		5.93	66.00	71.93	-	-	-	-	18,300

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				In-Situ	Removed	GRO	DRO	Total					
AH-4	5/24/2010	0-1'		X		<1.00	<50.0	<50.0	-	-	-	-	15,700
1st Spill		1-1.5'		X		-	-	-	-	-	-	-	4,250
		2-2.5'		X		-	-	-	-	-	-	-	5,250
		3-3.5'		X		-	-	-	-	-	-	-	5,990
		4-4.5'		X		-	-	-	-	-	-	-	8,990
		5-5.5'		X		-	-	-	-	-	-	-	8,240
		6-6.5'		X		-	-	-	-	-	-	-	7,470
		7-7.5'		X		-	-	-	-	-	-	-	6,750
		8-8.5'		X		-	-	-	-	-	-	-	5,170
		9-9.5'		X		-	-	-	-	-	-	-	4,850
SB-12	12/9/2010	0-1'		X		66.7	1,040	1,107	<0.100	<0.100	<0.100	<0.100	3,510
		3'		X		-	-	-	-	-	-	-	4,710
		5'		X		-	-	-	-	-	-	-	3,140
		7'		X		-	-	-	-	-	-	-	3,500
		10'		X		-	-	-	-	-	-	-	3,930
		15'		X		-	-	-	-	-	-	-	3,690
		20'		X		-	-	-	-	-	-	-	929
		25'		X		-	-	-	-	-	-	-	303
		30'		X		-	-	-	-	-	-	-	522

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				In-Situ	Removed	GRO	DRO	Total					
AH-1 2nd Spill	10/4/2010	0-1'		X		<1.00	<50.0	<50.0	-	-	-	-	5,280
		1-1.5'		X		-	-	-	-	-	-	-	3,820
		2-2.5'		X		-	-	-	-	-	-	-	3,940
		3-3.5'		X		-	-	-	-	-	-	-	4,860
SB-11	12/9/2010	0-1'		X		<2.00	<50.0	<50.0	-	-	-	-	366
		3'		X		-	-	-	-	-	-	-	292
		5'		X		-	-	-	-	-	-	-	1,610
		7'		X		-	-	-	-	-	-	-	8,650
		10'		X		-	-	-	-	-	-	-	15,600
		15'		X		-	-	-	-	-	-	-	5,800
		20'		X		-	-	-	-	-	-	-	2,230
		25'		X		-	-	-	-	-	-	-	909
		30'		X		-	-	-	-	-	-	-	949
		40'		X		-	-	-	-	-	-	-	860
		50'		X		-	-	-	-	-	-	-	1,050
		60'		X		-	-	-	-	-	-	-	711

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				In-Situ	Removed	GRO	DRO	Total					
AH-2	10/4/2010	0-1'		X		104	6,410	6,514	<0.200	0.293	<0.200	0.612	4,040
2nd Spill		1-1.5'		X		<1.00	<50.0	<50.0	-	-	-	-	2,580
		2-2.5'		X		<1.00	96	96	-	-	-	-	1,160
		3-3.5'		X		-	-	-	-	-	-	-	1,370
		4-4.5'		X		-	-	-	-	-	-	-	1,000
		5-5.5'		X		-	-	-	-	-	-	-	913
		6-6.5'		X		-	-	-	-	-	-	-	977
		7-7.5'		X		-	-	-	-	-	-	-	1,120
		8-8.5'		X		-	-	-	-	-	-	-	2,100
		9-9.5'		X		-	-	-	-	-	-	-	3,810
SB-10	12/9/2010	0-1'		X		<20.0	2270	2,270	<0.200	<0.200	<0.200	<0.200	9,310
		3'		X		-	-	-	-	-	-	-	8,260
		5'		X		-	-	-	-	-	-	-	6,770
		7'		X		-	-	-	-	-	-	-	4,150
		10'		X		-	-	-	-	-	-	-	3,290
		15'		X		-	-	-	-	-	-	-	3,030
		20'		X		-	-	-	-	-	-	-	7,180
		25'		X		-	-	-	-	-	-	-	2,660
		30'		X		-	-	-	-	-	-	-	2,460
		40'		X		-	-	-	-	-	-	-	1,280
		50'		X		-	-	-	-	-	-	-	252
		60'		X		-	-	-	-	-	-	-	272

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1st and 2nd Spill
EDDY COUNTY, NEW MEXICO

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				In-Situ	Removed	GRO	DRO	Total					
AH-3 2nd Spill	10/4/2010	0-1'		X		<1.00	88.10	88.10	-	-	-	-	279
		1-1.5'		X		-	-	-	-	-	-	-	<200
		2-2.5'		X		-	-	-	-	-	-	-	694
		3-3.5'		X		-	-	-	-	-	-	-	1,260
		4-4.5'		X		-	-	-	-	-	-	-	3,240
		5-5.5'		X		-	-	-	-	-	-	-	8,300
		6-6.5'		X		-	-	-	-	-	-	-	8,830
		7-7.5'		X		-	-	-	-	-	-	-	10,900
		8-8.5'		X		-	-	-	-	-	-	-	9,460
		9-9.5'		X		-	-	-	-	-	-	-	8,750
SB-7 (AH-3)	12/8/2010	0-1'		X		560	1120	1,680	<0.400	<0.400	<0.400	2.2	6,360
		3'		X		-	-	-	-	-	-	-	3,140
		5'		X		-	-	-	-	-	-	-	2,590
		7'		X		-	-	-	-	-	-	-	7,810
		10'		X		-	-	-	-	-	-	-	9,200
		15'		X		-	-	-	-	-	-	-	4,580
		20'		X		-	-	-	-	-	-	-	4,410
		25'		X		-	-	-	-	-	-	-	1,060
		30'		X		-	-	-	-	-	-	-	271
		40'		X		-	-	-	-	-	-	-	<200
		50'		X		-	-	-	-	-	-	-	290
		60'		X		-	-	-	-	-	-	-	271

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				In-Situ	Removed	GRO	DRO	Total					
SB-6	12/7/2010	0-1'		X		<2.00	62.1	62.1	<0.0200	<0.0200	<0.0200	<0.0200	821
(AH-4)		3'		X		-	-	-	-	-	-	-	936
		5'		X		-	-	-	-	-	-	-	8,190
		7'		X		-	-	-	-	-	-	-	3,950
		10'		X		-	-	-	-	-	-	-	9,110
		15'		X		-	-	-	-	-	-	-	9,640
		20'		X		-	-	-	-	-	-	-	3,100
		25'		X		-	-	-	-	-	-	-	3,490
		30'		X		-	-	-	-	-	-	-	992
		40'		X		-	-	-	-	-	-	-	<200
		50'		X		-	-	-	-	-	-	-	<200
		60'		X		-	-	-	-	-	-	-	<200
		70'		X		-	-	-	-	-	-	-	386
SB-9	12/8/2010	0-1'			X	587	3830	4,417	<1.00	<1.00	<1.00	5.47	5,220
(AH-4)		3'			X	-	-	-	-	-	-	-	4,780
		5'		X		-	-	-	-	-	-	-	2,290
		7'		X		-	-	-	-	-	-	-	3,550
		10'		X		-	-	-	-	-	-	-	1,780
		15'		X		-	-	-	-	-	-	-	2,310
		20'		X		-	-	-	-	-	-	-	2,580
		25'		X		-	-	-	-	-	-	-	3,800
		30'		X		-	-	-	-	-	-	-	800
		40'		X		-	-	-	-	-	-	-	255
		50'		X		-	-	-	-	-	-	-	1,320
		60'		X		-	-	-	-	-	-	-	568

Table 1
COG Operating LLC.
GJ West CO-OP South Water Distribution/Injection Line
1st and 2nd Spill
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 2nd Spill	10/4/2010	0-1'			X	91.30	71.10	162.4	<0.0500	<0.0500	0.304	0.358	5,970
		1-1.5'			X	-	-	-	-	-	-	-	2,770
		2-2.5'			X	-	-	-	-	-	-	-	3,380
		3-3.5'			X	-	-	-	-	-	-	-	5,110
		4-4.5'			X	-	-	-	-	-	-	-	6,210
		5-5.5'		X		-	-	-	-	-	-	-	8,390
		6-6.5'		X		-	-	-	-	-	-	-	8,360
		7-7.5'		X		-	-	-	-	-	-	-	6,580
		8-8.5'		X		-	-	-	-	-	-	-	6,410
		9-9.5'		X		-	-	-	-	-	-	-	6,030
SB-1 (AH-5)	12/6/2010	0-1'			X	<2.00	57.1	57.1	-	-	-	-	1,210
		3'			X	-	-	-	-	-	-	-	3,040
		5'		X		-	-	-	-	-	-	-	2,780
		7'		X		-	-	-	-	-	-	-	1,310
		10'		X		-	-	-	-	-	-	-	616
		15'		X		-	-	-	-	-	-	-	1,080
		20'		X		-	-	-	-	-	-	-	538
		25'		X		-	-	-	-	-	-	-	921
		30'		X		-	-	-	-	-	-	-	5,230
		40'		X		-	-	-	-	-	-	-	1,620
		50'		X		-	-	-	-	-	-	-	2,700
		60'		X		-	-	-	-	-	-	-	641

Table 1
COG Operating LLC.
GJ West CO-OP South Water Distribution/Injection Line
1st and 2nd Spill
EDDY COUNTY, NEW MEXICO

Table 1
COG Operating LLC.
GJ West CO-OP South Water Distribution/Injection Line
1st and 2nd Spill
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-6	10/4/2010	0-1'		X		1,320	4,400	5,720	<0.500	0.701	14.4	13.9	2,710
2nd Spill		1-1.5'		X		5,820	1,830	7,650	-	-	-	-	983
		2-2.5'		X		11,100	2,150	13,250	-	-	-	-	3,320
		3-3.5'		X		1,560	2,160	3,720	-	-	-	-	3,240
		4-4.5'		X		3,260	2,380	5,640	-	-	-	-	3,710
		5-5.5'		X		2,050	2,320	4,370	-	-	-	-	3,830
		6-6.5'		X		1,500	929	2,429	-	-	-	-	1,710
		7-7.5'		X		926	1,950	2,876	-	-	-	-	4,080
		8-8.5'		X		1,040	2,080	3,120	-	-	-	-	2,320
		9-9.5'		X		917	3690	4,607	-	-	-	-	6,280
SB-2	12/6/2010	0-1'		X		<10.0	437	437	<0.100	<0.100	<0.100	<0.100	6,990
(AH-6)		3'		X		-	-	-	-	-	-	-	2,810
		5'		X		-	-	-	-	-	-	-	1,300
		7'		X		-	-	-	-	-	-	-	2,260
		10'		X		-	-	-	-	-	-	-	2,540
		15'		X		-	-	-	-	-	-	-	2,270
		20'		X		-	-	-	-	-	-	-	4,600
		25'		X		-	-	-	-	-	-	-	2,480
		30'		X		-	-	-	-	-	-	-	289
		40'		X		-	-	-	-	-	-	-	712
		50'		X		-	-	-	-	-	-	-	217
		60'		X		-	-	-	-	-	-	-	754

Table 1
COG Operating LLC.
GJ West CO-OP South Water Distribution/Injection Line
1st and 2nd Spill
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					
SB-3	12/7/2010	0-1'		X		<2.00	<50.0	<50.0	-	-	-	-	<200
(AH-6)		3'		X		-	-	-	-	-	-	-	341
		5'		X		-	-	-	-	-	-	-	6,520
		7'		X		-	-	-	-	-	-	-	8,340
		10'		X		-	-	-	-	-	-	-	6,810
		15'		X		-	-	-	-	-	-	-	3,510
		20'		X		-	-	-	-	-	-	-	1,040
		25'		X		-	-	-	-	-	-	-	3,180
		30'		X		-	-	-	-	-	-	-	1,140
		40'		X		-	-	-	-	-	-	-	361
		50'		X		-	-	-	-	-	-	-	<200
		60'		X		-	-	-	-	-	-	-	<200

BEB Below Excavation Bottom

(--) Not Analyzed

 Excavation

 Liner installation

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

0544

Form C-14
Revised October 10, 2001

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	GJ West Coop South Water Distribution Site	Facility Type	Tank Battery

Surface Owner	State	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	23	17S	29E					Eddy

Latitude 32.81225 Longitude 104.0774

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	100bbls	Volume Recovered	10bbls
Source of Release	Transfer Pump	Date and Hour of Occurrence	05/06/2010	Date and Hour of Discovery	05/06/2010 4:00 p.m.
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher - OCD		
By Whom?	Josh Russo	Date and Hour	05/07/2010 9:25 a.m.		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

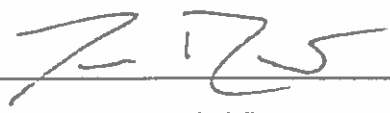
Describe Cause of Problem and Remedial Action Taken.*

A swedge broke off of the water transfer pump. The swedge has been repaired and the pump has been put back in service.

Describe Area Affected and Cleanup Action Taken.*

Initially 100bbls of produced water was released from the water transfer pump. We were able to recover 10bbls. The spill site area dimensions are 300' x 10'. 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 OCD 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: 05/07/2010 Phone: 432-212-2399			

* 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

0691

Form C-14
Revised October 10, 2000

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	GJ West Coop Unit South Water Distribution Site	Facility Type	Injection line

Surface Owner	State	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude 32 48.655 Longitude 104 04.555

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	100bbls	Volume Recovered	50bbls
Source of Release	Nipple off of injection line 90	Date and Hour of Occurrence	09/17/2010	Date and Hour of Discovery	09/17/2010 2:00 p.m.
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher—OCD		
By Whom?	Josh Russo	Date and Hour	09/17/2010 5:57 p.m.		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A nipple came loose off of the 90 on the injection line. All old fittings were replaced with new fittings.

Describe Area Affected and Cleanup Action Taken.*

Initially 100bbls of produced water was released due to the faulty fitting at the 90 on the injection line. We were able to recover 50bbls with a vacuum truck. The spill area has the dimensions of 10' x 600' in the pasture. (The closest well location to the release is the GJ West Coop Unit #170, Unit B, Sec.28-T17S-R29E, 565' FNL, 1330' FEL, Eddy Co., NM, API# 30-015-35777). Terra 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: jrussola@conchoresources.com	Conditions of Approval:		Attached ☐
Date: 09/20/2010	Phone: 432-212-2399		

Attach Additional Sheets If Necessary

Sample: 246942 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		6710	mg/Kg	4.00

Sample: 246943 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2530	mg/Kg	4.00

Sample: 246944 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		2040	mg/Kg	4.00

Sample: 246945 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1790	mg/Kg	4.00

Sample: 246946 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1720	mg/Kg	4.00

Sample: 246947 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		2690	mg/Kg	4.00

Sample: 246948 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		4290	mg/Kg	4.00

Sample: 246949 - AH-4 7-7.5'

Param	Flag	Result	Units	RL
Chloride		4030	mg/Kg	4.00

Sample: 246950 - AH-4 8-8.5'

Param	Flag	Result	Units	RL
Chloride		3980	mg/Kg	4.00

Sample: 246951 - AH-4 9-9.5'

Param	Flag	Result	Units	RL
Chloride		3430	mg/Kg	4.00

Sample: 246952 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		5970	mg/Kg	4.00

Sample: 246953 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2770	mg/Kg	4.00

Sample: 246954 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3380	mg/Kg	4.00

Sample: 246955 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		5110	mg/Kg	4.00

Sample: 246956 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		6210	mg/Kg	4.00

Sample: 246957 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		8390	mg/Kg	4.00

Sample: 246958 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		8360	mg/Kg	4.00

Sample: 246959 - AH-5 7-7.5'

Param	Flag	Result	Units	RL
Chloride		6580	mg/Kg	4.00

Sample: 246960 - AH-5 8-8.5'

Param	Flag	Result	Units	RL
Chloride		6410	mg/Kg	4.00

Sample: 246961 - AH-5 9-9.5'

Param	Flag	Result	Units	RL
Chloride		6030	mg/Kg	4.00

Sample: 246962 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		2710	mg/Kg	4.00

Sample: 246963 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		983	mg/Kg	4.00

Sample: 246964 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3320	mg/Kg	4.00

Sample: 246965 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		3240	mg/Kg	4.00

Sample: 246966 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		3710	mg/Kg	4.00

Sample: 246967 - AH-6 5-5.5'

Param	Flag	Result	Units	RL
Chloride		3830	mg/Kg	4.00

Sample: 246968 - AH-6 6-6.5'

Param	Flag	Result	Units	RL
Chloride		1710	mg/Kg	4.00

Sample: 246969 - AH-6 7-7.5'

Param	Flag	Result	Units	RL
Chloride		4080	mg/Kg	4.00

Sample: 246970 - AH-6 8-8.5'

Param	Flag	Result	Units	RL
Chloride		2320	mg/Kg	4.00

Sample: 246971 - AH-6 9-9.5'

Param	Flag	Result	Units	RL
Chloride		6280	mg/Kg	4.00

Summary Report

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

Report Date: December 22, 2010

Work Order: 10121028



Project Location: Eddy Co., NM
Project Name: COG/GJ Co-op SWD
Project Number: 114-6400524

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252965	SB-1 0-1'	soil	2010-12-06	00:00	2010-12-10
252966	SB-1 3'	soil	2010-12-06	00:00	2010-12-10
252967	SB-1 5'	soil	2010-12-06	00:00	2010-12-10
252968	SB-1 7'	soil	2010-12-06	00:00	2010-12-10
252969	SB-1 10'	soil	2010-12-06	00:00	2010-12-10
252970	SB-1 15'	soil	2010-12-06	00:00	2010-12-10
252971	SB-1 20'	soil	2010-12-06	00:00	2010-12-10
252972	SB-1 25'	soil	2010-12-06	00:00	2010-12-10
252973	SB-1 30'	soil	2010-12-06	00:00	2010-12-10
252974	SB-1 40'	soil	2010-12-06	00:00	2010-12-10
252975	SB-1 50'	soil	2010-12-06	00:00	2010-12-10
252976	SB-1 60'	soil	2010-12-06	00:00	2010-12-10
252977	SB-2 0-1'	soil	2010-12-06	00:00	2010-12-10
252978	SB-2 3'	soil	2010-12-06	00:00	2010-12-10
252979	SB-2 5'	soil	2010-12-06	00:00	2010-12-10
252980	SB-2 7'	soil	2010-12-06	00:00	2010-12-10
252981	SB-2 10'	soil	2010-12-06	00:00	2010-12-10
252982	SB-2 15'	soil	2010-12-06	00:00	2010-12-10
252983	SB-2 20'	soil	2010-12-06	00:00	2010-12-10
252984	SB-2 25'	soil	2010-12-06	00:00	2010-12-10
252985	SB-2 30'	soil	2010-12-06	00:00	2010-12-10
252986	SB-2 40'	soil	2010-12-06	00:00	2010-12-10
252987	SB-2 50'	soil	2010-12-06	00:00	2010-12-10
252988	SB-2 60'	soil	2010-12-06	00:00	2010-12-10
252989	SB-3 0-1'	soil	2010-12-07	00:00	2010-12-10
252990	SB-3 3'	soil	2010-12-07	00:00	2010-12-10
252991	SB-3 5'	soil	2010-12-07	00:00	2010-12-10
252992	SB-3 7'	soil	2010-12-07	00:00	2010-12-10
252993	SB-3 10'	soil	2010-12-07	00:00	2010-12-10
252994	SB-3 15'	soil	2010-12-07	00:00	2010-12-10

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252995	SB-3 20'	soil	2010-12-07	00:00	2010-12-10
252996	SB-3 25'	soil	2010-12-07	00:00	2010-12-10
252997	SB-3 30'	soil	2010-12-07	00:00	2010-12-10
252998	SB-3 40'	soil	2010-12-07	00:00	2010-12-10
252999	SB-3 50'	soil	2010-12-07	00:00	2010-12-10
253000	SB-3 60'	soil	2010-12-07	00:00	2010-12-10
253001	SB-4 0-1'	soil	2010-12-07	00:00	2010-12-10
253002	SB-4 3'	soil	2010-12-07	00:00	2010-12-10
253003	SB-4 5'	soil	2010-12-07	00:00	2010-12-10
253004	SB-4 7'	soil	2010-12-07	00:00	2010-12-10
253005	SB-4 10'	soil	2010-12-07	00:00	2010-12-10
253006	SB-4 15'	soil	2010-12-07	00:00	2010-12-10
253007	SB-4 20'	soil	2010-12-07	00:00	2010-12-10
253008	SB-4 25'	soil	2010-12-07	00:00	2010-12-10
253009	SB-4 30'	soil	2010-12-07	00:00	2010-12-10
253010	SB-4 40'	soil	2010-12-07	00:00	2010-12-10
253011	SB-4 50'	soil	2010-12-07	00:00	2010-12-10
253012	SB-5 0-1'	soil	2010-12-07	00:00	2010-12-10
253013	SB-5 3'	soil	2010-12-07	00:00	2010-12-10
253014	SB-5 5'	soil	2010-12-07	00:00	2010-12-10
253015	SB-5 7'	soil	2010-12-07	00:00	2010-12-10
253016	SB-5 10'	soil	2010-12-07	00:00	2010-12-10
253017	SB-5 15'	soil	2010-12-07	00:00	2010-12-10
253018	SB-5 20'	soil	2010-12-07	00:00	2010-12-10
253019	SB-5 25'	soil	2010-12-07	00:00	2010-12-10
253020	SB-5 30'	soil	2010-12-07	00:00	2010-12-10
253021	SB-5 40'	soil	2010-12-07	00:00	2010-12-10
253022	SB-5 50'	soil	2010-12-07	00:00	2010-12-10
253023	SB-5 60'	soil	2010-12-07	00:00	2010-12-10
253024	SB-5 70'	soil	2010-12-07	00:00	2010-12-10
253025	SB-6 0-1'	soil	2010-12-07	00:00	2010-12-10
253026	SB-6 3'	soil	2010-12-07	00:00	2010-12-10
253027	SB-6 5'	soil	2010-12-07	00:00	2010-12-10
253028	SB-6 7'	soil	2010-12-07	00:00	2010-12-10
253029	SB-6 10'	soil	2010-12-07	00:00	2010-12-10
253030	SB-6 15'	soil	2010-12-07	00:00	2010-12-10
253031	SB-6 20'	soil	2010-12-07	00:00	2010-12-10
253032	SB-6 25'	soil	2010-12-07	00:00	2010-12-10
253033	SB-6 30'	soil	2010-12-07	00:00	2010-12-10
253034	SB-6 40'	soil	2010-12-07	00:00	2010-12-10
253035	SB-6 50'	soil	2010-12-07	00:00	2010-12-10
253036	SB-6 60'	soil	2010-12-07	00:00	2010-12-10
253037	SB-6 70'	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)
252965 - SB-1 0-1'					57.1	<2.00

continued ...

... continued

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
252977 - SB-2 0-1'	<0.100	<0.100	<0.100	<0.100	437	<10.0
252989 - SB-3 0-1'					<50.0	<2.00
253001 - SB-4 0-1'					<50.0	<2.00
253012 - SB-5 0-1'	<0.100	<0.100	<0.100	<0.100	426	<10.0
253025 - SB-6 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	62.1	<2.00

Sample: 252965 - SB-1 0-1'

Param	Flag	Result	Units	RL
Chloride		1210	mg/Kg	4.00

Sample: 252966 - SB-1 3'

Param	Flag	Result	Units	RL
Chloride		3040	mg/Kg	4.00

Sample: 252967 - SB-1 5'

Param	Flag	Result	Units	RL
Chloride		2780	mg/Kg	4.00

Sample: 252968 - SB-1 7'

Param	Flag	Result	Units	RL
Chloride		1310	mg/Kg	4.00

Sample: 252969 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		616	mg/Kg	4.00

Sample: 252970 - SB-1 15'

Param	Flag	Result	Units	RL
Chloride		1080	mg/Kg	4.00

Sample: 252971 - SB-1 20'

Param	Flag	Result	Units	RL
Chloride		538	mg/Kg	4.00

Sample: 252972 - SB-1 25'

Param	Flag	Result	Units	RL
Chloride		921	mg/Kg	4.00

Sample: 252973 - SB-1 30'

Param	Flag	Result	Units	RL
Chloride		5230	mg/Kg	4.00

Sample: 252974 - SB-1 40'

Param	Flag	Result	Units	RL
Chloride		1620	mg/Kg	4.00

Sample: 252975 - SB-1 50'

Param	Flag	Result	Units	RL
Chloride		2700	mg/Kg	4.00

Sample: 252976 - SB-1 60'

Param	Flag	Result	Units	RL
Chloride		641	mg/Kg	4.00

Sample: 252977 - SB-2 0-1'

Param	Flag	Result	Units	RL
Chloride		6990	mg/Kg	4.00

Sample: 252978 - SB-2 3'

Param	Flag	Result	Units	RL
Chloride		2810	mg/Kg	4.00

Sample: 252979 - SB-2 5'

Param	Flag	Result	Units	RL
Chloride		1300	mg/Kg	4.00

Sample: 252980 - SB-2 7'

Param	Flag	Result	Units	RL
Chloride		2260	mg/Kg	4.00

Sample: 252981 - SB-2 10'

Param	Flag	Result	Units	RL
Chloride		2540	mg/Kg	4.00

Sample: 252982 - SB-2 15'

Param	Flag	Result	Units	RL
Chloride		2270	mg/Kg	4.00

Sample: 252983 - SB-2 20'

Param	Flag	Result	Units	RL
Chloride		4600	mg/Kg	4.00

Sample: 252984 - SB-2 25'

Param	Flag	Result	Units	RL
Chloride		2480	mg/Kg	4.00

Sample: 252985 - SB-2 30'

Param	Flag	Result	Units	RL
Chloride		289	mg/Kg	4.00

Sample: 252986 - SB-2 40'

Param	Flag	Result	Units	RL
Chloride		712	mg/Kg	4.00

Sample: 252987 - SB-2 50'

Param	Flag	Result	Units	RL
Chloride		217	mg/Kg	4.00

Sample: 252988 - SB-2 60'

Param	Flag	Result	Units	RL
Chloride		754	mg/Kg	4.00

Sample: 252989 - SB-3 0-1'

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

Sample: 252990 - SB-3 3'

Param	Flag	Result	Units	RL
Chloride		341	mg/Kg	4.00

Sample: 252991 - SB-3 5'

Param	Flag	Result	Units	RL
Chloride		6520	mg/Kg	4.00

Sample: 252992 - SB-3 7'

Param	Flag	Result	Units	RL
Chloride		8340	mg/Kg	4.00

Sample: 252993 - SB-3 10'

Param	Flag	Result	Units	RL
Chloride		6810	mg/Kg	4.00

Sample: 252994 - SB-3 15'

Param	Flag	Result	Units	RL
Chloride		3510	mg/Kg	4.00

Sample: 252995 - SB-3 20'

Param	Flag	Result	Units	RL
Chloride		1040	mg/Kg	4.00

Sample: 252996 - SB-3 25'

Param	Flag	Result	Units	RL
Chloride		3180	mg/Kg	4.00

Sample: 252997 - SB-3 30'

Param	Flag	Result	Units	RL
Chloride		1140	mg/Kg	4.00

Sample: 252998 - SB-3 40'

Param	Flag	Result	Units	RL
Chloride		361	mg/Kg	4.00

Sample: 252999 - SB-3 50'

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

Sample: 253000 - SB-3 60'

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

Sample: 253001 - SB-4 0-1'

Param	Flag	Result	Units	RL
Chloride		7040	mg/Kg	4.00

Sample: 253002 - SB-4 3'

Param	Flag	Result	Units	RL
Chloride		5420	mg/Kg	4.00

Sample: 253003 - SB-4 5'

Param	Flag	Result	Units	RL
Chloride		4430	mg/Kg	4.00

Sample: 253004 - SB-4 7'

Param	Flag	Result	Units	RL
Chloride		7040	mg/Kg	4.00

Sample: 253005 - SB-4 10'

Param	Flag	Result	Units	RL
Chloride		5850	mg/Kg	4.00

Sample: 253006 - SB-4 15'

Param	Flag	Result	Units	RL
Chloride		11800	mg/Kg	4.00

Sample: 253007 - SB-4 20'

Param	Flag	Result	Units	RL
Chloride		7120	mg/Kg	4.00

Sample: 253008 - SB-4 25'

Param	Flag	Result	Units	RL
Chloride		3000	mg/Kg	4.00

Sample: 253009 - SB-4 30'

Param	Flag	Result	Units	RL
Chloride		2790	mg/Kg	4.00

Sample: 253010 - SB-4 40'

Param	Flag	Result	Units	RL
Chloride		956	mg/Kg	4.00

Sample: 253011 - SB-4 50'

Param	Flag	Result	Units	RL
Chloride		480	mg/Kg	4.00

Sample: 253012 - SB-5 0-1'

Param	Flag	Result	Units	RL
Chloride		3540	mg/Kg	4.00

Sample: 253013 - SB-5 3'

Param	Flag	Result	Units	RL
Chloride		3360	mg/Kg	4.00

Sample: 253014 - SB-5 5'

Param	Flag	Result	Units	RL
Chloride		2420	mg/Kg	4.00

Sample: 253015 - SB-5 7'

Param	Flag	Result	Units	RL
Chloride		2050	mg/Kg	4.00

Sample: 253016 - SB-5 10'

Param	Flag	Result	Units	RL
Chloride		2970	mg/Kg	4.00

Sample: 253017 - SB-5 15'

Param	Flag	Result	Units	RL
Chloride		3280	mg/Kg	4.00

Sample: 253018 - SB-5 20'

Param	Flag	Result	Units	RL
Chloride		9500	mg/Kg	4.00

Sample: 253019 - SB-5 25'

Param	Flag	Result	Units	RL
Chloride		4220	mg/Kg	4.00

Sample: 253020 - SB-5 30'

Param	Flag	Result	Units	RL
Chloride		609	mg/Kg	4.00

Sample: 253021 - SB-5 40'

Param	Flag	Result	Units	RL
Chloride		2710	mg/Kg	4.00

Sample: 253022 - SB-5 50'

Param	Flag	Result	Units	RL
Chloride		3360	mg/Kg	4.00

Sample: 253023 - SB-5 60'

Param	Flag	Result	Units	RL
Chloride		754	mg/Kg	4.00

Sample: 253024 - SB-5 70'

Param	Flag	Result	Units	RL
Chloride		1840	mg/Kg	4.00

Sample: 253025 - SB-6 0-1'

Param	Flag	Result	Units	RL
Chloride		821	mg/Kg	4.00

Sample: 253026 - SB-6 3'

Param	Flag	Result	Units	RL
Chloride		936	mg/Kg	4.00

Sample: 253027 - SB-6 5'

Param	Flag	Result	Units	RL
Chloride		8190	mg/Kg	4.00

Sample: 253028 - SB-6 7'

Param	Flag	Result	Units	RL
Chloride		3950	mg/Kg	4.00

Sample: 253029 - SB-6 10'

Param	Flag	Result	Units	RL
Chloride		9110	mg/Kg	4.00

Sample: 253030 - SB-6 15'

Param	Flag	Result	Units	RL
Chloride		9640	mg/Kg	4.00

Sample: 253031 - SB-6 20'

Param	Flag	Result	Units	RL
Chloride		3100	mg/Kg	4.00

Sample: 253032 - SB-6 25'

Param	Flag	Result	Units	RL
Chloride		3490	mg/Kg	4.00

Sample: 253033 - SB-6 30'

Param	Flag	Result	Units	RL
Chloride		992	mg/Kg	4.00

Sample: 253034 - SB-6 40'

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

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Sample: 253035 - SB-6 50'

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

Sample: 253036 - SB-6 60'

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

Sample: 253037 - SB-6 70'

Param	Flag	Result	Units	RL
Chloride		386	mg/Kg	4.00

Summary Report

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

Report Date: December 30, 2010

Work Order: 10121029



Project Location: Eddy Co., NM
Project Name: COG/GJ Co-op SWD
Project Number: 114-6400524

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
253038	SB-7 0-1'	soil	2010-12-08	00:00	2010-12-10
253039	SB-7 3'	soil	2010-12-08	00:00	2010-12-10
253040	SB-7 5'	soil	2010-12-08	00:00	2010-12-10
253041	SB-7 7'	soil	2010-12-08	00:00	2010-12-10
253042	SB-7 10'	soil	2010-12-08	00:00	2010-12-10
253043	SB-7 15'	soil	2010-12-08	00:00	2010-12-10
253044	SB-7 20'	soil	2010-12-08	00:00	2010-12-10
253045	SB-7 25'	soil	2010-12-08	00:00	2010-12-10
253046	SB-7 30'	soil	2010-12-08	00:00	2010-12-10
253047	SB-7 40'	soil	2010-12-08	00:00	2010-12-10
253048	SB-7 50'	soil	2010-12-08	00:00	2010-12-10
253049	SB-7 60'	soil	2010-12-08	00:00	2010-12-10
253050	SB-8 0-1'	soil	2010-12-08	00:00	2010-12-10
253051	SB-8 3'	soil	2010-12-08	00:00	2010-12-10
253052	SB-8 5'	soil	2010-12-08	00:00	2010-12-10
253053	SB-8 7'	soil	2010-12-08	00:00	2010-12-10
253054	SB-8 10'	soil	2010-12-08	00:00	2010-12-10
253055	SB-8 15'	soil	2010-12-08	00:00	2010-12-10
253056	SB-8 20'	soil	2010-12-08	00:00	2010-12-10
253057	SB-8 25'	soil	2010-12-08	00:00	2010-12-10
253058	SB-8 30'	soil	2010-12-08	00:00	2010-12-10
253059	SB-8 40'	soil	2010-12-08	00:00	2010-12-10
253060	SB-8 50'	soil	2010-12-08	00:00	2010-12-10
253061	SB-9 0-1'	soil	2010-12-08	00:00	2010-12-10
253062	SB-9 3'	soil	2010-12-08	00:00	2010-12-10
253063	SB-9 5'	soil	2010-12-08	00:00	2010-12-10
253064	SB-9 7'	soil	2010-12-08	00:00	2010-12-10
253065	SB-9 10'	soil	2010-12-08	00:00	2010-12-10
253066	SB-9 15'	soil	2010-12-08	00:00	2010-12-10
253067	SB-9 20'	soil	2010-12-08	00:00	2010-12-10

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
253068	SB-9 25'	soil	2010-12-08	00:00	2010-12-10
253069	SB-9 30'	soil	2010-12-08	00:00	2010-12-10
253070	SB-9 40'	soil	2010-12-08	00:00	2010-12-10
253071	SB-9 50'	soil	2010-12-08	00:00	2010-12-10
253072	SB-9 60'	soil	2010-12-08	00:00	2010-12-10
253073	SB-10 0-1'	soil	2010-12-09	00:00	2010-12-10
253074	SB-10 3'	soil	2010-12-09	00:00	2010-12-10
253075	SB-10 5'	soil	2010-12-09	00:00	2010-12-10
253076	SB-10 7'	soil	2010-12-09	00:00	2010-12-10
253077	SB-10 10'	soil	2010-12-09	00:00	2010-12-10
253078	SB-10 15'	soil	2010-12-09	00:00	2010-12-10
253079	SB-10 20'	soil	2010-12-09	00:00	2010-12-10
253080	SB-10 25'	soil	2010-12-09	00:00	2010-12-10
253081	SB-10 30'	soil	2010-12-09	00:00	2010-12-10
253082	SB-10 40'	soil	2010-12-09	00:00	2010-12-10
253083	SB-10 50'	soil	2010-12-09	00:00	2010-12-10
253084	SB-10 60'	soil	2010-12-09	00:00	2010-12-10
253085	SB-11 0-1'	soil	2010-12-09	00:00	2010-12-10
253086	SB-11 3'	soil	2010-12-09	00:00	2010-12-10
253087	SB-11 5'	soil	2010-12-09	00:00	2010-12-10
253088	SB-11 7'	soil	2010-12-09	00:00	2010-12-10
253089	SB-11 10'	soil	2010-12-09	00:00	2010-12-10
253090	SB-11 15'	soil	2010-12-09	00:00	2010-12-10
253091	SB-11 20'	soil	2010-12-09	00:00	2010-12-10
253092	SB-11 25'	soil	2010-12-09	00:00	2010-12-10
253093	SB-11 30'	soil	2010-12-09	00:00	2010-12-10
253094	SB-11 40'	soil	2010-12-09	00:00	2010-12-10
253095	SB-11 50'	soil	2010-12-09	00:00	2010-12-10
253096	SB-11 60'	soil	2010-12-09	00:00	2010-12-10
253097	SB-12 0-1'	soil	2010-12-09	00:00	2010-12-10
253098	SB-12 3'	soil	2010-12-09	00:00	2010-12-10
253099	SB-12 5'	soil	2010-12-09	00:00	2010-12-10
253100	SB-12 7'	soil	2010-12-09	00:00	2010-12-10
253101	SB-12 10'	soil	2010-12-09	00:00	2010-12-10
253102	SB-12 15'	soil	2010-12-09	00:00	2010-12-10
253103	SB-12 20'	soil	2010-12-09	00:00	2010-12-10
253104	SB-12 25'	soil	2010-12-09	00:00	2010-12-10
253105	SB-12 30'	soil	2010-12-09	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)
253038 - SB-7 0-1'	<0.400	<0.400	<0.400	2.20	1120	560
253050 - SB-8 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	307	2.56
253061 - SB-9 0-1'	<1.00	<1.00	<1.00	5.47	3830	587
253073 - SB-10 0-1'	<0.200	<0.200	<0.200	<0.200	2270	<20.0
253085 - SB-11 0-1'					<50.0	<2.00
253097 - SB-12 0-1'	<0.100	<0.100	<0.100	<0.100	1040	66.7

Sample: 253038 - SB-7 0-1'

Param	Flag	Result	Units	RL
Chloride		6360	mg/Kg	4.00

Sample: 253039 - SB-7 3'

Param	Flag	Result	Units	RL
Chloride		3140	mg/Kg	4.00

Sample: 253040 - SB-7 5'

Param	Flag	Result	Units	RL
Chloride		2590	mg/Kg	4.00

Sample: 253041 - SB-7 7'

Param	Flag	Result	Units	RL
Chloride		7810	mg/Kg	4.00

Sample: 253042 - SB-7 10'

Param	Flag	Result	Units	RL
Chloride		9200	mg/Kg	4.00

Sample: 253043 - SB-7 15'

Param	Flag	Result	Units	RL
Chloride		4580	mg/Kg	4.00

Sample: 253044 - SB-7 20'

Param	Flag	Result	Units	RL
Chloride		4410	mg/Kg	4.00

Sample: 253045 - SB-7 25'

Param	Flag	Result	Units	RL
Chloride		1060	mg/Kg	4.00

Sample: 253046 - SB-7 30'

Param	Flag	Result	Units	RL
Chloride		271	mg/Kg	4.00

Sample: 253047 - SB-7 40'

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

Sample: 253048 - SB-7 50'

Param	Flag	Result	Units	RL
Chloride		290	mg/Kg	4.00

Sample: 253049 - SB-7 60'

Param	Flag	Result	Units	RL
Chloride		271	mg/Kg	4.00

Sample: 253050 - SB-8 0-1'

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

Sample: 253051 - SB-8 3'

Param	Flag	Result	Units	RL
Chloride		261	mg/Kg	4.00

Sample: 253052 - SB-8 5'

Param	Flag	Result	Units	RL
Chloride		7640	mg/Kg	4.00

Sample: 253053 - SB-8 7'

Param	Flag	Result	Units	RL
Chloride		4820	mg/Kg	4.00

Sample: 253054 - SB-8 10'

Param	Flag	Result	Units	RL
Chloride		3180	mg/Kg	4.00

Sample: 253055 - SB-8 15'

Param	Flag	Result	Units	RL
Chloride		9800	mg/Kg	4.00

Sample: 253056 - SB-8 20'

Param	Flag	Result	Units	RL
Chloride		10800	mg/Kg	4.00

Sample: 253057 - SB-8 25'

Param	Flag	Result	Units	RL
Chloride		3490	mg/Kg	4.00

Sample: 253058 - SB-8 30'

Param	Flag	Result	Units	RL
Chloride		3180	mg/Kg	4.00

Sample: 253059 - SB-8 40'

Param	Flag	Result	Units	RL
Chloride		2680	mg/Kg	4.00

Sample: 253060 - SB-8 50'

Param	Flag	Result	Units	RL
Chloride		2210	mg/Kg	4.00

Sample: 253061 - SB-9 0-1'

Param	Flag	Result	Units	RL
Chloride		5220	mg/Kg	4.00

Sample: 253062 - SB-9 3'

Param	Flag	Result	Units	RL
Chloride		4780	mg/Kg	4.00

Sample: 253063 - SB-9 5'

Param	Flag	Result	Units	RL
Chloride		2290	mg/Kg	4.00

Sample: 253064 - SB-9 7'

Param	Flag	Result	Units	RL
Chloride		3550	mg/Kg	4.00

Sample: 253065 - SB-9 10'

Param	Flag	Result	Units	RL
Chloride		1780	mg/Kg	4.00

Sample: 253066 - SB-9 15'

Param	Flag	Result	Units	RL
Chloride		2310	mg/Kg	4.00

Sample: 253067 - SB-9 20'

Param	Flag	Result	Units	RL
Chloride		2580	mg/Kg	4.00

Sample: 253068 - SB-9 25'

Param	Flag	Result	Units	RL
Chloride		3800	mg/Kg	4.00

Sample: 253069 - SB-9 30'

Param	Flag	Result	Units	RL
Chloride		800	mg/Kg	4.00

Sample: 253070 - SB-9 40'

Param	Flag	Result	Units	RL
Chloride		255	mg/Kg	4.00

Sample: 253071 - SB-9 50'

Param	Flag	Result	Units	RL
Chloride		1320	mg/Kg	4.00

Sample: 253072 - SB-9 60'

Param	Flag	Result	Units	RL
Chloride		568	mg/Kg	4.00

Sample: 253073 - SB-10 0-1'

Param	Flag	Result	Units	RL
Chloride		9310	mg/Kg	4.00

Sample: 253074 - SB-10 3'

Param	Flag	Result	Units	RL
Chloride		8260	mg/Kg	4.00

Sample: 253075 - SB-10 5'

Param	Flag	Result	Units	RL
Chloride		6770	mg/Kg	4.00

Sample: 253076 - SB-10 7'

Param	Flag	Result	Units	RL
Chloride		4150	mg/Kg	4.00

Sample: 253077 - SB-10 10'

Param	Flag	Result	Units	RL
Chloride		3290	mg/Kg	4.00

Sample: 253078 - SB-10 15'

Param	Flag	Result	Units	RL
Chloride		3030	mg/Kg	4.00

Sample: 253079 - SB-10 20'

Param	Flag	Result	Units	RL
Chloride		7180	mg/Kg	4.00

Sample: 253080 - SB-10 25'

Param	Flag	Result	Units	RL
Chloride		2660	mg/Kg	4.00

Sample: 253081 - SB-10 30'

Param	Flag	Result	Units	RL
Chloride		2460	mg/Kg	4.00

Sample: 253082 - SB-10 40'

Param	Flag	Result	Units	RL
Chloride		1280	mg/Kg	4.00

Sample: 253083 - SB-10 50'

Param	Flag	Result	Units	RL
Chloride		252	mg/Kg	4.00

Sample: 253084 - SB-10 60'

Param	Flag	Result	Units	RL
Chloride		272	mg/Kg	4.00

Sample: 253085 - SB-11 0-1'

Param	Flag	Result	Units	RL
Chloride		366	mg/Kg	4.00

Sample: 253086 - SB-11 3'

Param	Flag	Result	Units	RL
Chloride		292	mg/Kg	4.00

Sample: 253087 - SB-11 5'

Param	Flag	Result	Units	RL
Chloride		1610	mg/Kg	4.00

Sample: 253088 - SB-11 7'

Param	Flag	Result	Units	RL
Chloride		8650	mg/Kg	4.00

Sample: 253089 - SB-11 10'

Param	Flag	Result	Units	RL
Chloride		15600	mg/Kg	4.00

Sample: 253090 - SB-11 15'

Param	Flag	Result	Units	RL
Chloride		5800	mg/Kg	4.00

Sample: 253091 - SB-11 20'

Param	Flag	Result	Units	RL
Chloride		2230	mg/Kg	4.00

Sample: 253092 - SB-11 25'

Param	Flag	Result	Units	RL
Chloride		909	mg/Kg	4.00

Sample: 253093 - SB-11 30'

Param	Flag	Result	Units	RL
Chloride		949	mg/Kg	4.00

Sample: 253094 - SB-11 40'

Param	Flag	Result	Units	RL
Chloride		860	mg/Kg	4.00

Sample: 253095 - SB-11 50'

Param	Flag	Result	Units	RL
Chloride		1050	mg/Kg	4.00

Sample: 253096 - SB-11 60'

Param	Flag	Result	Units	RL
Chloride		711	mg/Kg	4.00

Sample: 253097 - SB-12 0-1'

Param	Flag	Result	Units	RL
Chloride		3510	mg/Kg	4.00

Sample: 253098 - SB-12 3'

Param	Flag	Result	Units	RL
Chloride		4710	mg/Kg	4.00

Sample: 253099 - SB-12 5'

Param	Flag	Result	Units	RL
Chloride		3140	mg/Kg	4.00

Sample: 253100 - SB-12 7'

Param	Flag	Result	Units	RL
Chloride		3500	mg/Kg	4.00

Sample: 253101 - SB-12 10'

Param	Flag	Result	Units	RL
Chloride		3930	mg/Kg	4.00

Sample: 253102 - SB-12 15'

Param	Flag	Result	Units	RL
Chloride		3690	mg/Kg	4.00

Sample: 253103 - SB-12 20'

Param	Flag	Result	Units	RL
Chloride		929	mg/Kg	4.00

Sample: 253104 - SB-12 25'

Param	Flag	Result	Units	RL
Chloride		303	mg/Kg	4.00

Sample: 253105 - SB-12 30'

Param	Flag	Result	Units	RL
Chloride		522	mg/Kg	4.00

District I
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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
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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	GJ South Water Station	Facility Type	Water Station
Surface Owner	State	Mineral Owner	Lease No. (API#) 30-015-10756 Closest well location

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude 32 48.382 Longitude 104 04.653

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	50bbls	Volume Recovered	25bbls
Source of Release	Injection manifold 2" coupling	Date and Hour of Occurrence	03/28/2012	Date and Hour of Discovery	03/28/2012 8:00 a.m.
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher-OCD		
By Whom?	Josh Russo	Date and Hour	03/28/2012 11:46 a.m.		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The injection manifold 2" coupling blew odd of the line causing the release. The injection manifold has been replaced.

Describe Area Affected and Cleanup Action Taken.*

Initially 50bbls were released and we were able to recover 25bbls with a vacuum truck. The release area traveled from the location and streamed into the nearby pasture to a pooling area measuring roughly 15' x 50'. All free fluids have been recovered and the location has been scraped. 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:			
Printed Name:	Josh Russo		
Title:	HSE Coordinator		Approved by District Supervisor:
E-mail Address:	jrusso@conchoresources.com		Approval Date:
Date:	04/05/2012	Phone:	432-212-2399
Conditions of Approval:			Expiration Date:
			Attached ☐

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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JUN 19 2012

NMOCD ARTESIA

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Release Notification and Corrective Action

nJMW 1217338587

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC 229137	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	GJ West Coop Unit #074	Facility Type	Well
Surface Owner	State	Mineral Owner	Lease No. (API#) 30-015-25492

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	28	17S	29E					Eddy

Latitude 32 48.400 Longitude 104 04.527

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	15 bbls	Volume Recovered	12 bbls
Source of Release	casing	Date and Hour of Occurrence	06/06/2012	Date and Hour of Discovery	06/06/2012 8:30 a.m.
Was Immediate Notice Given?	☐ Yes ☒ No ☒ Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The well developed a hole in the casing, allowing water flow from injection wells. A clamp has been placed on the casing the well has been turned in for repair.

Describe Area Affected and Cleanup Action Taken.*

15 bbls of produced water was released from the hole in the casing and we were able to recover 12 bbls with a vacuum truck. All fluid remained on location and the location has been scraped. Tetra Tech will sample the spill area on the pad 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: Signed By <i>Mike Brannon</i>		
Title: HSE Coordinator	Approval Date: JUN 21 2012	Expiration Date:	
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached ☐	
Date: 06/19/2012	Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

Remediation per OCD Rules &
Guidelines. SUBMIT REMEDIATION
PROPOSAL NOT LATER THAN:

7/21/12

2RP-1182

1362

District I
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Oil Conservation Division
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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	GJ West Coop Trunkline	Facility Type	Trunkline

Surface Owner	State	Mineral Owner		Lease No. (API#)	30-015-25492
				Wells tied into trunkline	30-015-03163

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude 32 48.700 Longitude 104 04.642

NATURE OF RELEASE

Type of Release	Produced water w/ skim oil	Volume of Release	10bbls	Volume Recovered	2bbls
Source of Release	Trunkline	Date and Hour of Occurrence	07/09/2012	Date and Hour of Discovery	07/09/2012 3:20 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.*

Corrosion caused a hole to develop in our GJ West Coop Unit #74 and #125 trunkline. We are in the process of replacing the corroded steel flowline.

Describe Area Affected and Cleanup Action Taken.*

Initially approximately 10bbls were release from the corroded flowline and we were able to recover 2bbls with vacuum truck. 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:	
Date: 07/12/2012 Phone: 432-212-2399		Attached ☐	

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources

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OCT 25 2012

NMOCD ARTESIA

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Release Notification and Corrective Action

nJMW1231139384

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC 229137	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	GJ West Coop Trunkline	Facility Type	Steel Flowline

Surface Owner	State	Mineral Owner		Lease No. (API#)	30-015-25492
				Wells tied into trunkline	30-015-03163

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude 32.8101 Longitude 104.0761

NATURE OF RELEASE

Type of Release	Produced water w/ skim oil	Volume of Release	7bbls	Volume Recovered	5bbls
Source of Release	Steel line	Date and Hour of Occurrence	10/09/2012	Date and Hour of Discovery	10/09/2012 11:30 a.m.
Was Immediate Notice Given?	☐ Yes ☒ No ☒ Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

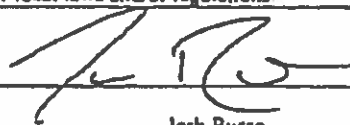
Describe Cause of Problem and Remedial Action Taken.*

Due to corrosion, a hole developed in a steel flowline causing the release of fluid. A temporary clamp has been installed on the clamp until the line can be replaced.

Describe Area Affected and Cleanup Action Taken.*

Initially 7bbls of produced fluids were released from the corroded line and we were able to recover 5bbls with a vacuum truck. 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:	Signed By 
Title:	HSE Coordinator	Approval Date:	10/06/2012
E-mail Address:	jrusso@cunchonresources.com	Expiration Date:	
Date:	10/24/2012	Phone:	432-212-2399
		Conditions of Approval	Attached ☐

* Attach Additional Sheets If Necessary

Remediation per OCD Rules &
Guidelines. SUBMIT REMEDIATION
PROPOSAL NOT LATER THAN:

Dec. 6, 2012

2RP-1387

District I
1625 N. French Dr., Hobbs, NM 88240
District II
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District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
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Oil Conservation Division
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Santa Fe, NM 87505

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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	GJ West Coop South Water Distribution Site	Facility Type	Tank Battery

Surface Owner: State	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	23	17S	29E					Eddy

Latitude N 32.81225 Longitude W 104.0774

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release 100 bbls	Volume Recovered 10 bbls
Source of Release Transfer Pump	Date and Hour of Occurrence 05-06-2010	Date and Hour of Discovery 05-06-2010 4:00p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD	
By Whom? Josh Russo	Date and Hour 05-07-2010 9:25 a.m.	
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 swedge broke off the water transfer pump. The swedge has been repaired and the pump has been put back in service.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Selected areas of soils that exceeded RRAL were removed and hauled away for proper disposal if accessible. 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: 		OIL CONSERVATION DIVISION	
Printed Name: Ike Tavarez <i>(Agent for COG)</i>		Approved by District Supervisor:	
Title: Project Manager, P.G.		Approval Date:	Expiration Date:
E-mail Address: ike.tavarez@tetrattech.com		Conditions of Approval:	
Date: 01/11/14 Phone: (432) 687-8110		Attached ☐	

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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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	GJ West Coop Unit South Water Distribution Site	Facility Type	Injection Line

Surface Owner: State	Mineral Owner	Lease No. 30-015-10756
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude N 32 48.655 Longitude W 104 04.555

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release 100 bbls	Volume Recovered 50 bbls
Source of Release Nipple off of injection line 90	Date and Hour of Occurrence 09-17-2010	Date and Hour of Discovery 09-17-2010 2:00p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher- OCD	
By Whom? Josh Russo	Date and Hour 09-17-2010 5:57 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

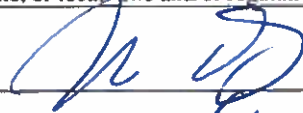
Describe Cause of Problem and Remedial Action Taken.*

A nipple came loose off of the 90 on the injection line. All old fittings were replaced with new fittings

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Selected areas with soils that exceeded RRAL were removed and hauled away for proper disposal if accessible. 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: 		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:	
Date: 10/11/14 Phone: (432) 687-8110		Attached ☐	

* 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
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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	GJ South Water Station	Facility Type	Water Station

Surface Owner: State	Mineral Owner	Lease No. 30-015-10756
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude N 32 48.382 Longitude W 104 04.653

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release 50 bbls	Volume Recovered 25 bbls
Source of Release Injection manifold 2" coupling	Date and Hour of Occurrence 03-28-2012	Date and Hour of Discovery 03-28-2012 8:00a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD	
By Whom? Josh Russo	Date and Hour 03-28-2012 11:46 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The injection manifold 2" coupling blew odd of the line causing the release. The injection manifold was replaced.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Selected areas with soils that exceeded RRAL were removed and hauled away for proper disposal if accessible. 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: 		<u>OIL CONSERVATION DIVISION</u>	
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:	
Date: 12/11/14 Phone: (432) 687-8110		Attached ☐	

* Attach Additional Sheets If Necessary

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1625 N. French Dr., Hobbs, NM 88240
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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	GJ West Coop Unit #074	Facility Type	Well

Surface Owner: State	Mineral Owner	Lease No. 30-015-25492 30-015-03163
----------------------	---------------	--

LOCATION OF RELEASE

Unit Letter H	Section 28	Township 17S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude N 32.81225° Longitude W 104.0774°

NATURE OF RELEASE

Type of Release: Produced water w/skim oil	Volume of Release 15 bbls	Volume Recovered 12 bbls
Source of Release casing	Date and Hour of Occurrence 06-06-2012	Date and Hour of Discovery 06-06-2012 8:30a.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. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

The well developed a hole in the casing, allowing water flow from injection wells. A clamp was placed on the casing and the well was turned in for repair.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Selected areas with soils that exceeded RRAL were removed and hauled away for proper disposal if accessible. 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: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Ike Tavarez (Agent for COG)		Approved by District Supervisor:	
Title: Project Manager, P.G.		Approval Date:	Expiration Date:
E-mail Address: ike.tavarez@tetrattech.com		Conditions of Approval:	
Date: 12/11/14 Phone: (432) 687-8110		Attached ☐	

* 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	GJ West Coop Trunkline	Facility Type	Trunkline

Surface Owner: State	Mineral Owner	Lease No. 30-015-25492 30-015-03163
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude N 32.81225° Longitude W 104.0774°

NATURE OF RELEASE

Type of Release: Produced water w/skim oil	Volume of Release 10 bbls	Volume Recovered 2 bbls
Source of Release Trunkline	Date and Hour of Occurrence 07-09-2012	Date and Hour of Discovery 07-09-2012 3:20a.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	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

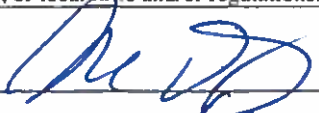
Describe Cause of Problem and Remedial Action Taken.*

Corrosion caused a hole to develop in our GJ West Coop Unit #74 and #125 trunkline. We are in the process of replacing the corroded steel flowline.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Selected areas with soils that exceeded RRAL were removed and hauled away for proper disposal if accessible. 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: 		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@tetrattech.com		Conditions of Approval:	
Date: 12/14/14 Phone: (432) 687-8110		Attached ☐	

* Attach Additional Sheets If Necessary

District I
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State of New Mexico
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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	GJ West Coop Trunkline	Facility Type	Steel Flowline
Surface Owner: State	Mineral Owner	Lease No.	30-015-25492 30-015-03163

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	28	17S	29E					Eddy

Latitude N 32.81225° Longitude W 104.0774°

NATURE OF RELEASE

Type of Release: Produced water w/skim oil	Volume of Release	7 bbls	Volume Recovered	5 bbls	
Source of Release	Steel line	Date and Hour of Occurrence	10-09-2012	Date and Hour of Discovery	10-09-2012 11:00a.m.
Was Immediate Notice Given?	☐ Yes ☒ No ☒ Not Required	If YES, To Whom?			
By Whom?	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.*

Due to corrosion, a hole developed in a steel flowline causing the release of fluid. A temporary clamp has been installed on the clamp until the line can be replaced.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spills extent. Selected areas with soils that exceeded RRAL were removed and hauled away for proper disposal if accessible. 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: 	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@tetrattech.com	Conditions of Approval:		Attached ☐
Date: 12/11/14	Phone: (432) 687-8110		

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - GJ West Coop
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	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	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	
7	8	9	10	11	
18	17	16	15	14	
19	20	21	22	23	
30	29	28	27	26	
31	32	33	34	35	

17 South			28 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	25
31	32	33	34	35	36

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

18 South			28 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	
7	8	9	10	11	
18	17	16	15	14	
19	20	21	22	23	
30	29	28	27	26	
31	32	33	34	35	

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

APPENDIX C

Summary Report

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

Report Date: June 9, 2010

Work Order: 10052814



Project Location: Eddy County, NM
Project Name: COG/GJ West Co-op South Water Distribution
Project Number: 114-6400524

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
233113	AH-1 0-1'	soil	2010-05-24	00:00	2010-05-27
233114	AH-1 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233115	AH-1 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233116	AH-1 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233117	AH-1 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233118	AH-1 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233119	AH-1 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233120	AH-1 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233121	AH-1 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233122	AH-1 9-9.5'	soil	2010-05-24	00:00	2010-05-27
233123	AH-2 0-1'	soil	2010-05-24	00:00	2010-05-27
233124	AH-2 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233125	AH-2 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233126	AH-2 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233127	AH-2 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233128	AH-2 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233129	AH-2 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233130	AH-2 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233131	AH-2 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233132	AH-2 9-9.5'	soil	2010-05-24	00:00	2010-05-27
233133	AH-3 0-1'	soil	2010-05-24	00:00	2010-05-27
233134	AH-4 0-1'	soil	2010-05-24	00:00	2010-05-27
233135	AH-4 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233136	AH-4 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233137	AH-4 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233138	AH-4 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233139	AH-4 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233140	AH-4 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233141	AH-4 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233142	AH-4 8-8.5'	soil	2010-05-24	00:00	2010-05-27

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
233143	AH-4 9-9.5'	soil	2010-05-24	00:00	2010-05-27

Sample - Field Code	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
233113 - AH-1 0-1'	<50.0	<1.00
233123 - AH-2 0-1'	77.3	17.2
233133 - AH-3 0-1'	66.0	5.93
233134 - AH-4 0-1'	<50.0	<1.00

Sample: 233113 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		7520	mg/Kg	4.00

Sample: 233114 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2950	mg/Kg	4.00

Sample: 233115 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		4830	mg/Kg	4.00

Sample: 233116 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		5670	mg/Kg	4.00

Sample: 233117 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		5290	mg/Kg	4.00

Sample: 233118 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		5560	mg/Kg	4.00

Sample: 233119 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		6040	mg/Kg	4.00

Sample: 233120 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		6410	mg/Kg	4.00

Sample: 233121 - AH-1 8-8.5'

Param	Flag	Result	Units	RL
Chloride		6000	mg/Kg	4.00

Sample: 233122 - AH-1 9-9.5'

Param	Flag	Result	Units	RL
Chloride		6300	mg/Kg	4.00

Sample: 233123 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		11100	mg/Kg	4.00

Sample: 233124 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		11000	mg/Kg	4.00

Sample: 233125 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3220	mg/Kg	4.00

Sample: 233126 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		3490	mg/Kg	4.00

Sample: 233127 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		4610	mg/Kg	4.00

Sample: 233128 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		4520	mg/Kg	4.00

Sample: 233129 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		4310	mg/Kg	4.00

Sample: 233130 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		2290	mg/Kg	4.00

Sample: 233131 - AH-2 8-8.5'

Param	Flag	Result	Units	RL
Chloride		2570	mg/Kg	4.00

Sample: 233132 - AH-2 9-9.5'

Param	Flag	Result	Units	RL
Chloride		3150	mg/Kg	4.00

Sample: 233133 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		18300	mg/Kg	4.00

Sample: 233134 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		15700	mg/Kg	4.00

Sample: 233135 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		4250	mg/Kg	4.00

Sample: 233136 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		5250	mg/Kg	4.00

Sample: 233137 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		5990	mg/Kg	4.00

Sample: 233138 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		8990	mg/Kg	4.00

Sample: 233139 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		8240	mg/Kg	4.00

Sample: 233140 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		7470	mg/Kg	4.00

Sample: 233141 - AH-4 7-7.5'

Param	Flag	Result	Units	RL
Chloride		6750	mg/Kg	4.00

Sample: 233142 - AH-4 8-8.5'

Param	Flag	Result	Units	RL
Chloride		5170	mg/Kg	4.00

Report Date: June 9, 2010

Work Order: 10052814

Page Number: 6 of 6

Sample: 233143 - AH-4 9-9.5'

Param	Flag	Result	Units	RL
Chloride		4850	mg/Kg	4.00

Summary Report

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

Report Date: October 22, 2010

Work Order: 10100715



Project Location: Eddy County, NM
Project Name: COG/GJ West Co-op Inj. Line
Project Number: 114-6400691

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
246918	AH-1 0-1'	soil	2010-10-04	00:00	2010-10-07
246919	AH-1 1-1.5'	soil	2010-10-04	00:00	2010-10-07
246920	AH-1 2-2.5'	soil	2010-10-04	00:00	2010-10-07
246921	AH-1 3-3.5'	soil	2010-10-04	00:00	2010-10-07
246922	AH-2 0-1'	soil	2010-10-04	00:00	2010-10-07
246923	AH-2 1-1.5'	soil	2010-10-04	00:00	2010-10-07
246924	AH-2 2-2.5'	soil	2010-10-04	00:00	2010-10-07
246925	AH-2 3-3.5'	soil	2010-10-04	00:00	2010-10-07
246926	AH-2 4-4.5'	soil	2010-10-04	00:00	2010-10-07
246927	AH-2 5-5.5'	soil	2010-10-04	00:00	2010-10-07
246928	AH-2 6-6.5'	soil	2010-10-04	00:00	2010-10-07
246929	AH-2 7-7.5'	soil	2010-10-04	00:00	2010-10-07
246930	AH-2 8-8.5'	soil	2010-10-04	00:00	2010-10-07
246931	AH-2 9-9.5'	soil	2010-10-04	00:00	2010-10-07
246932	AH-3 0-1'	soil	2010-10-04	00:00	2010-10-07
246933	AH-3 1-1.5'	soil	2010-10-04	00:00	2010-10-07
246934	AH-3 2-2.5'	soil	2010-10-04	00:00	2010-10-07
246935	AH-3 3-3.5'	soil	2010-10-04	00:00	2010-10-07
246936	AH-3 4-4.5'	soil	2010-10-04	00:00	2010-10-07
246937	AH-3 5-5.5'	soil	2010-10-04	00:00	2010-10-07
246938	AH-3 6-6.5'	soil	2010-10-04	00:00	2010-10-07
246939	AH-3 7-7.5'	soil	2010-10-04	00:00	2010-10-07
246940	AH-3 8-8.5'	soil	2010-10-04	00:00	2010-10-07
246941	AH-3 9-9.5'	soil	2010-10-04	00:00	2010-10-07
246942	AH-4 0-1'	soil	2010-10-04	00:00	2010-10-07
246943	AH-4 1-1.5'	soil	2010-10-04	00:00	2010-10-07
246944	AH-4 2-2.5'	soil	2010-10-04	00:00	2010-10-07
246945	AH-4 3-3.5'	soil	2010-10-04	00:00	2010-10-07
246946	AH-4 4-4.5'	soil	2010-10-04	00:00	2010-10-07
246947	AH-4 5-5.5'	soil	2010-10-04	00:00	2010-10-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
246948	AH-4 6-6.5'	soil	2010-10-04	00:00	2010-10-07
246949	AH-4 7-7.5'	soil	2010-10-04	00:00	2010-10-07
246950	AH-4 8-8.5'	soil	2010-10-04	00:00	2010-10-07
246951	AH-4 9-9.5'	soil	2010-10-04	00:00	2010-10-07
246952	AH-5 0-1'	soil	2010-10-04	00:00	2010-10-07
246953	AH-5 1-1.5'	soil	2010-10-04	00:00	2010-10-07
246954	AH-5 2-2.5'	soil	2010-10-04	00:00	2010-10-07
246955	AH-5 3-3.5'	soil	2010-10-04	00:00	2010-10-07
246956	AH-5 4-4.5'	soil	2010-10-04	00:00	2010-10-07
246957	AH-5 5-5.5'	soil	2010-10-04	00:00	2010-10-07
246958	AH-5 6-6.5'	soil	2010-10-04	00:00	2010-10-07
246959	AH-5 7-7.5'	soil	2010-10-04	00:00	2010-10-07
246960	AH-5 8-8.5'	soil	2010-10-04	00:00	2010-10-07
246961	AH-5 9-9.5'	soil	2010-10-04	00:00	2010-10-07
246962	AH-6 0-1'	soil	2010-10-04	00:00	2010-10-07
246963	AH-6 1-1.5'	soil	2010-10-04	00:00	2010-10-07
246964	AH-6 2-2.5'	soil	2010-10-04	00:00	2010-10-07
246965	AH-6 3-3.5'	soil	2010-10-04	00:00	2010-10-07
246966	AH-6 4-4.5'	soil	2010-10-04	00:00	2010-10-07
246967	AH-6 5-5.5'	soil	2010-10-04	00:00	2010-10-07
246968	AH-6 6-6.5'	soil	2010-10-04	00:00	2010-10-07
246969	AH-6 7-7.5'	soil	2010-10-04	00:00	2010-10-07
246970	AH-6 8-8.5'	soil	2010-10-04	00:00	2010-10-07
246971	AH-6 9-9.5'	soil	2010-10-04	00:00	2010-10-07

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)
246918 - AH-1 0-1'					<50.0	<1.00
246922 - AH-2 0-1'	<0.200	0.293	<0.200	0.612	6410	104
246923 - AH-2 1-1.5'					<50.0	<1.00
246924 - AH-2 2-2.5'					96.0	<1.00
246932 - AH-3 0-1'					88.1	<1.00
246942 - AH-4 0-1'	<0.200	1.78	4.87	12.7	8060	1430
246943 - AH-4 1-1.5'					<250	590
246944 - AH-4 2-2.5'					151	<1.00
246952 - AH-5 0-1'	<0.0500	<0.0500	0.304	0.358	71.1	91.3
246962 - AH-6 0-1'	<0.500	0.701	14.4	13.9	4400	1320
246963 - AH-6 1-1.5'					1830	5820
246964 - AH-6 2-2.5'					2150	11100
246965 - AH-6 3-3.5'					2160	1560
246966 - AH-6 4-4.5'					2380	3260
246967 - AH-6 5-5.5'					2320	2050
246968 - AH-6 6-6.5'					929	1500
246969 - AH-6 7-7.5'					1950	926
246970 - AH-6 8-8.5'					2080	1040
246971 - AH-6 9-9.5'					3690	917

Sample: 246918 - AH-1 0-1'

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

Param	Flag	Result	Units	RL
Chloride		5280	mg/Kg	4.00

Sample: 246919 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		3820	mg/Kg	4.00

Sample: 246920 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3940	mg/Kg	4.00

Sample: 246921 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		4860	mg/Kg	4.00

Sample: 246922 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		4040	mg/Kg	4.00

Sample: 246923 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2580	mg/Kg	4.00

Sample: 246924 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		1160	mg/Kg	4.00

Sample: 246925 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1370	mg/Kg	4.00

Sample: 246926 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1000	mg/Kg	4.00

Sample: 246927 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		913	mg/Kg	4.00

Sample: 246928 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		977	mg/Kg	4.00

Sample: 246929 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		1120	mg/Kg	4.00

Sample: 246930 - AH-2 8-8.5'

Param	Flag	Result	Units	RL
Chloride		2100	mg/Kg	4.00

Sample: 246931 - AH-2 9-9.5'

Param	Flag	Result	Units	RL
Chloride		3810	mg/Kg	4.00

Sample: 246932 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		279	mg/Kg	4.00

Sample: 246933 - AH-3 1-1.5'

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

Sample: 246934 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		694	mg/Kg	4.00

Sample: 246935 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1260	mg/Kg	4.00

Sample: 246936 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		3240	mg/Kg	4.00

Sample: 246937 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		8300	mg/Kg	4.00

Sample: 246938 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		8830	mg/Kg	4.00

Sample: 246939 - AH-3 7-7.5'

Param	Flag	Result	Units	RL
Chloride		10900	mg/Kg	4.00

Sample: 246940 - AH-3 8-8.5'

Param	Flag	Result	Units	RL
Chloride		9460	mg/Kg	4.00

Sample: 246941 - AH-3 9-9.5'

Param	Flag	Result	Units	RL
Chloride		8750	mg/Kg	4.00