CONCHO

[Dakota Neel]
[HSE Coordinator]

February 21, 2019

Bradford Billings
Oil Conservation Division
Santa Fe

Ryan Mann
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88240

Re: Closure Letter

State S 19 #20
API: 30-015-32060
RP#: 2RP-3932
Unit Letter M Section 19, Township 17S, Range 29E Eddy County, NM

Mr. Billings/Mr. Mann,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the State S 19 #20. This release occurred on October 6, 2016. Following the release an assessment of impacted soils was conducted and a work plan was submitted and subsequently approved by the NMOCD and NMSLO on April 4, 2018 and April 19, 2018 respectively.

BACKGROUND

The leak was discovered on October 6, 2016, and released approximately 0.5 bbls of oil and 7 bbls of produced water due a corroded steel flowline. Approximately 2 bbls of produced water was recovered. The release occurred in the pasture impacting an area measuring approximately 25'x 35' and migrated onto the lease road impacting an area measuring approximately 40' x 165'.

Remediation activities were conducted in accordance with the NMOCD/NMSLO approved workplan.

REMEDIAL ACTIONS

- The impacted area of T-1 was excavated to a total depth of four (4) feet BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- The excavation was backfilled and contoured to match the surrounding terrain.
- The site will be reseeded with the NMSLO Loamy Seed Mixture.
- Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds.

CLOSURE REQUEST

COG Operating, LLC respectfully requests closure approval for State S 19 #20 (2RP-3932). Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,

Dakota Neel
HSE Coordinator

Enclosed:

Appendix I: Approved Workplan
Appendix II: Initial C-141 (Copy)
Appendix III: Final C-141

APPENDIX I

SITE INFORMATION

Report Type: Work Plan 2RP-3932

General Site Information:						
Site:	**State S19 #20**					
Company:	**COG Operating LLC**					
Section, Township and Range	**Unit M**	**Sec. 19**	**T 17S**	**R 29E**		
County:	**Eddy County**					
GPS:	**32.816627° N**			**104.112893° W**		
Surface Owner:	State					
Mineral Owner:						
Directions:	From the intersection of Lovington Hwy & CR 211(Old Loco Rd N) travel north on CR 211 for 0.50 mi, turn west onto lease road for 1.0 mi to the lease road intersection (location).					

Release Data:	
Date Released:	10/6/2016
Type Release:	Oil & Produced Water
Source of Contamination:	Flowline
Fluid Released:	0.5 bbl oil & 7 bbl PW
Fluids Recovered:	0 bbl oil & 2 bbl PW

Official Communication:			
Name:	Robert McNeil		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		4000 N. Big Spring
	600 W. Illinois Ave.		Ste 401
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 687-8110
Fax:	(432) 684-7137		
Email:	rmcneil@conchoresources.com		Ike.Tavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	***0***	*125'-150'*
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

April 16, 2018

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

Re: Work Plan for the COG Operating LLC., State S19 #20, Unit M, Section 19, Township 17 South, Range 29 East, Eddy County, New Mexico.
2RP-3932.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC., (COG) to assess and evaluate a release that occurred at State S19 #20, Unit M, Section 19, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.816627º, W 104.112893º. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on October 6, 2016, and released approximately 0.5 bbls of oil and 7 bbls of produced water due a corroded steel flowline. Approximately 2 bbls of produced water was recovered. The release occurred in the pasture impacting an area measuring approximately 25'x 35' and migrated onto the lease road impacting an area measuring approximately 40' x 165. The Initial C-141 Form is included in Appendix A.

Groundwater

No wells are listed within Section 19 in the New Mexico Office of the State Engineers database. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in the area is between 125' and 150' below surface. The groundwater data 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,

Tetra Tech
4000 North Big Spring, Suite 401, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

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

Trench Installation

On December 21, 2016, COG personnel were onsite to evaluate and sample the release area in the pasture. One (1) sample trench was installed to 14.0' below surface in order to evaluate the soils. Due to heavy traffic in the area and corresponding safety concerns, no samples were collected in the release area on the hard packed lease road. 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 D. The sampling results are summarized in Table 1.

Referring to Table 1, the area of trench (T-1) showed elevated chloride concentrations in the shallow soils, with a chloride high of 3,040 mg/kg at 3.0' below surface. The chloride concentrations declined with depth to 32.0 mg/kg at 6.0' and 8.0' below surface. However, chloride concentrations spiked at 12.0' (720 mg/kg) and 14.0' (1,230 mg/kg) below surface, respectively. Additionally, the surface sample at trench (T-1) showed benzene, total BTEX, and TPH concentrations below the RRALs.

Based on the laboratory results, ASSI personnel were onsite on October 20, 2017, to install one (1) sample trench (T-1A) in the area of trench (T-1). Samples were collected at 10.0', 11.0' and 12.0' below surface in order to confirm the deeper chloride concentrations detected at trench (T-1). The samples were analyzed for chloride by EPA method 300.0. Copies of the laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1.

Referring to Table 1, the area of trench (T-1A) showed chloride concentrations of 559 mg/kg (10'), 470 mg/kg (11'), and 654 mg/kg (12'). The chloride impact was not vertically defined to below 600 mg/kg.

Borehole Installation

Based on the laboratory results, Tetra Tech personnel returned to the site on December 13, 2017, to install one borehole (BH-1) in the area of trench (T-1) to a total depth of 19'-20' below surface. 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 D. The borehole location is shown in Figure 3. The sampling results are summarized in Table 1.

TETRA TECH

Referring to Table 1, the area of borehole (BH-1) showed a chloride concentration of 40.2 mg/kg at 9-10', which further declined with depth and showed a bottom hole concentration of 14.2 mg/kg at 19'-20' below surface.

Work Plan

Based on the laboratory results, COG proposes to remove the chloride impacted soils as shown on Figure 4 and highlighted (green) on Table 1. The area of borehole (BH-1) will be excavated to approximately 3.0-4.0' below surface to remove the chloride impacted soils. Due to safety concerns and the heavy traffic, the area on the lease road will not be excavated. The excavated areas will be backfilled with clean material to surface grade. All of the excavated material will be transported offsite for proper disposal.

The proposed excavation depths may not be reached due to wall cave ins and safety concerns for onsite personnel. In addition, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safely concerns for onsite personnel. As such, COG will excavate the impacted soils to the maximum extent practicable.

Revegetation Plan

The backfilled areas will be seeded in June 2018 in order to coincide with the rainy season in Southeastern New Mexico to aid in revegetation. Based on the soils at the site, the BLM seed mixture 2 (Sandy Sites) will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The BLM seed mixture details and corresponding pounds pure live seed per acre are included in Appendix C.

TETRA TECH

Conclusion

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

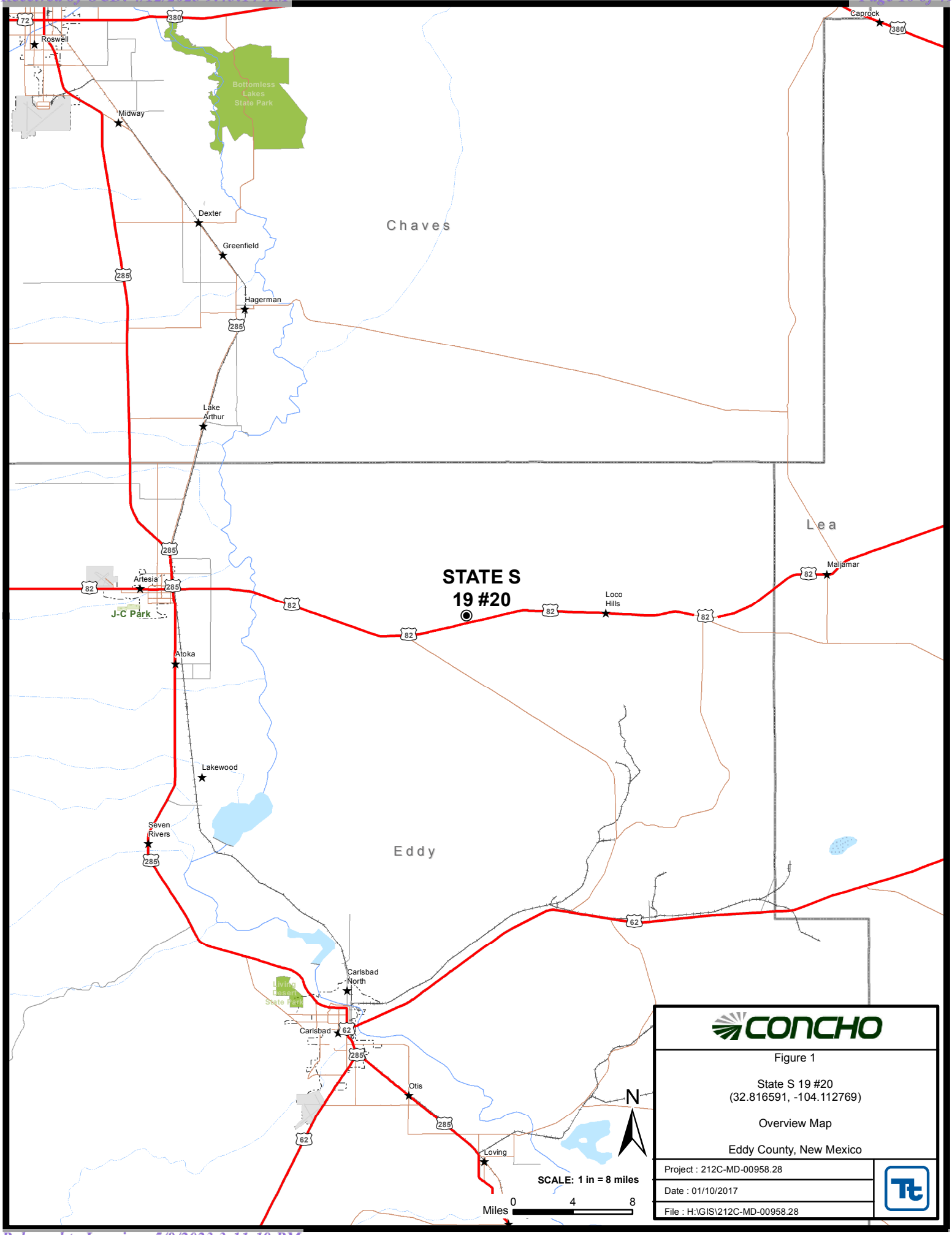
Respectfully submitted,
TETRA TECH

Clair Gonzales,
Geologist I

Ike Tavarez,
Senior Project Manager, P.G.

cc: Robert McNeill – COG
Dakota Neel – COG
Rebecca Haskell – COG
Crystal Weaver - NMOCD
Mark Naranjo - SLO

Figures



CONCHO

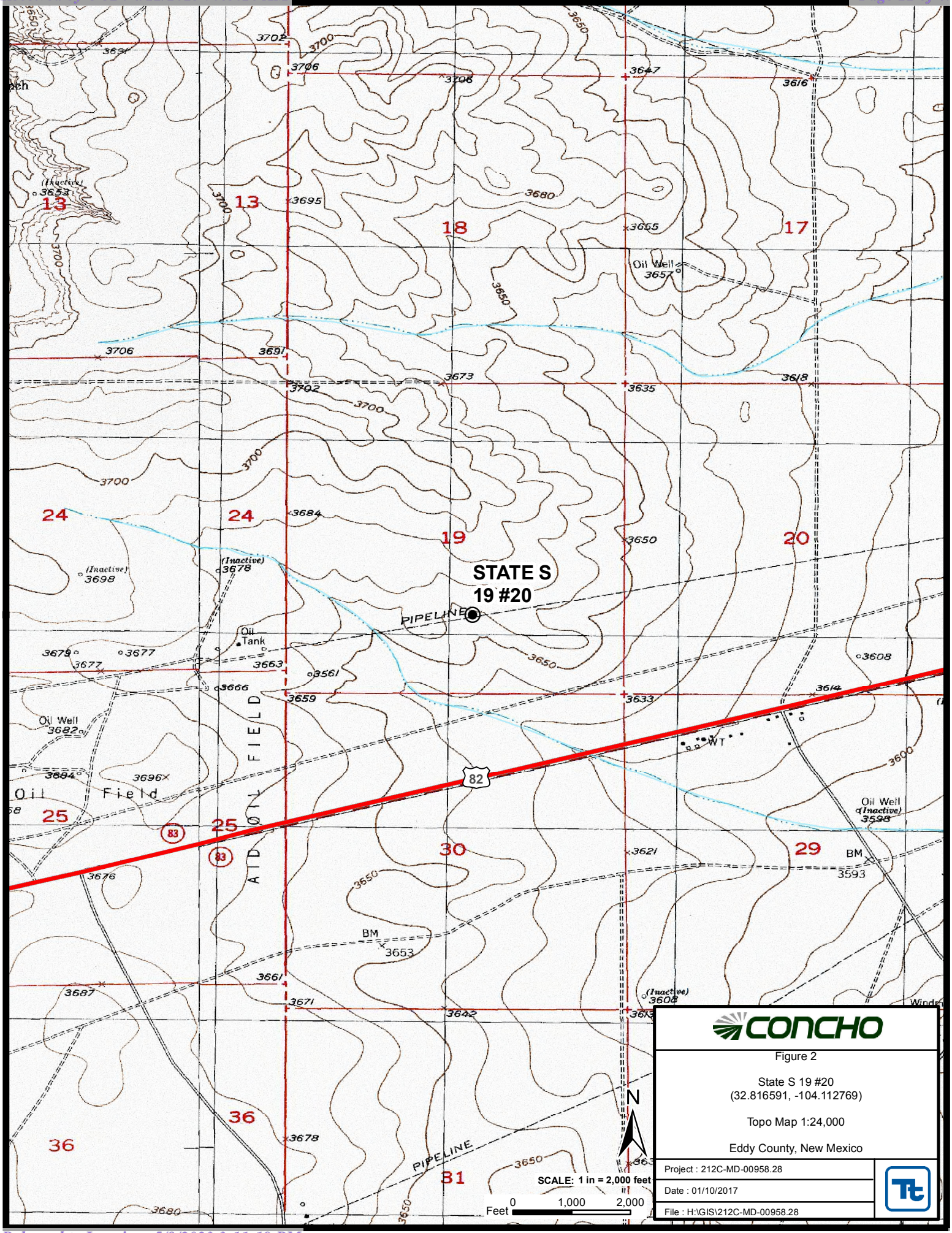
Figure 1

State S 19 #20
(32.816591, -104.112769)

Overview Map

Eddy County, New Mexico

Project : 212C-MD-00958.28	
Date : 01/10/2017	
File : H:\GIS\212C-MD-00958.28	



CONCHO

Figure 2

State S 19 #20
(32.816591, -104.112769)

Topo Map 1:24,000

Eddy County, New Mexico

Project : 212C-MD-00958.28

Date : 01/10/2017

File : H:\GIS\212C-MD-00958.28

EXPLANATION

- BOREHOLE SAMPLE LOCATION
- SPILL AREA

CONCHO

Figure 3

State S 19 #20
(32.816591, -104.112769)

Spill Assessment Map

Eddy County, New Mexico

Project : 212C-MD-00958.28	
Date : 01/10/2017	
File : H:\GIS\212C-MD-00958.28	

CONCHO

Figure 4

State S 19 #20
(32.816591, -104.112769)

Proposed Excavation Area & Depth Map

Eddy County, New Mexico

Project : 212C-MD-00958.28

Date : 01/10/2017

File : H:\GIS\212C-MD-00958.28

Tables

Table 1
COG Operating LLC.
State S 19 #20
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
T-1	12/21/2016	Surface	X		<10.0	<10.0	<10.0	<0.0500	0.0570	<0.0500	<0.150	<0.300	**2,160**
	"	1	X		-	-	-	-	-	-	-	-	592
	"	2	X		-	-	-	-	-	-	-	-	**1,140**
	"	3	X		-	-	-	-	-	-	-	-	**3,040**
	"	4	X		-	-	-	-	-	-	-	-	**1,680**
	"	6	X		-	-	-	-	-	-	-	-	32.0
	"	8	X		-	-	-	-	-	-	-	-	32.0
	"	10	X		-	-	-	-	-	-	-	-	144
	"	12	X		-	-	-	-	-	-	-	-	**720**
	"	14	X		-	-	-	-	-	-	-	-	**1,230**
T-1A	10/20/2017	10	X		-	-	-	-	-	-	-	-	559
	"	11	X		-	-	-	-	-	-	-	-	470
	"	12	X		-	-	-	-	-	-	-	-	**654**
BH-1	12/13/2017	9-10	X		-	-	-	-	-	-	-	-	40.2
	"	14-15	X		-	-	-	-	-	-	-	-	28.4
	"	19-20	X		-	-	-	-	-	-	-	-	14.2

(-) Not Analyzed

Photos

COG Operating LLC
State S19 #20
Eddy County, New Mexico

TETRA TECH

View North – Area of BH-1

View North – Area of BH-1

Appendix A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company:	COG Operating LLC	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	STATE S 19 #020	Facility Type:	Flowline

Surface Owner: State	Mineral Owner:	API No. 30-015-32060

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	19	17S	29E	990'	South	330'	West	Eddy

Latitude 32.8155899 **Longitude** 104.1203995

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 0.5bbls of Oil & 7bbls of Produced Water	Volume Recovered: 0bbls of Oil & 2bbls of Produced Water
Source of Release: Flowline	Date and Hour of Occurrence: 10-06-2016 09:00 am	Date and Hour of Discovery: 10-06-2016 09:00 am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A steel flowline corroded due to age. Placed a clap on the damaged area until the line can be replaced with a polyline.

Describe Area Affected and Cleanup Action Taken.*

This release occurred within the pasture, alongside the road. Concho will have the spill site sampled 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: Robert Grubbs Jr.	Approved by Environmental Specialist:
Title: Senior Environmental Coordinator	Approval Date: / Expiration Date:
E-mail Address: rgrubbs@concho.com	Conditions of Approval: / Attached ☐
Date: October 7, 2016 Phone: 432-683-7443	

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - State S19 #20
Eddy County, New Mexico

16 South 28 East

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

16 South 29 East

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

16 South 30 East

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

17 South 28 East

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

17 South 29 East

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

17 South 30 East

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

18 South 28 East

6	5	4 **108**	3	2 **55**	1
7 **49**	8 81 **69**	9	10	11	12
18	17	16	15 **80**	14	13
19	20	21 **226**	22	23	24
30 137	29	28	27	26	25
31	32	33	34	35 **65**	36

18 South 29 East

6	5	4	3	2	1
7	8	9	10 **95**	11	12
18	17	16	15	14	13
19	20	21	22	23	24 158
30	29	28	27	26	25
31	32	33	34	35	36

18 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23 **44**	24
30	29	28	27	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

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

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

34 NMOCD - Groundwater Data

123 Tetra Tech installed temporary wells and field water level

143 NMOCD Groundwater map well location

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

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11807 POD1			ED	1	2	3	22	17S	29E	587360	3631585	131	76	55

Average Depth to Water: **76 feet**
Minimum Depth: **76 feet**
Maximum Depth: **76 feet**

Record Count: 1

PLSS Search:

Township: 17S **Range:** 29E

Appendix C

Eddy Area, New Mexico

SG—Simona gravelly fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5w
Elevation: 2,750 to 5,000 feet
Mean annual precipitation: 8 to 16 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 95 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

Landform: Alluvial fans, plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 19 inches: gravelly fine sandy loam
H2 - 19 to 23 inches: indurated

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: Shallow Sandy (R042XC002NM)

Hydric soil rating: No

Minor Components

Playa

Percent of map unit: 1 percent
Landform: Playas
Landform position (three-dimensional): Talf
Down-slope shape: Concave, convex
Across-slope shape: Concave, linear
Ecological site: Bottomland (R042XC017NM)
Hydric soil rating: Yes

Simona

Percent of map unit:
Ecological site: Shallow Sandy (R042XC002NM)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 13, Sep 9, 2017

NMSLO Seed Mix — Loamy (L)

LOAMY (L) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Black grama	VNS, Southern	1.0	D
Blue grama	Lovington	1.0	D
Sideoats grama	Vaughn, El Reno	4.0	F
Sand dropseed	VNS, Southern	2.0	S
Alkali sacaton	VNS, Southern	1.0	
Little bluestem	Cimarron, Pastura	1.5	F
Forbs:			
Firewheel (*Gaillardia*)	VNS, Southern	1.0	D
Shrubs:			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
	Total PLS/acre	**18.0**	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box
VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at http://plants.usda.gov.

Appendix D

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 05, 2017

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: STATE 19 #20

Enclosed are the results of analyses for samples received by the laboratory on 12/29/16 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	12/29/2016	Sampling Date:	12/21/2016
Reported:	01/05/2017	Sampling Type:	Soil
Project Name:	STATE 19 #20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - SURFACE (H602893-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2016	ND	1.82	91.1	2.00	2.19	
Toluene*	**0.057**	0.050	12/30/2016	ND	1.85	92.3	2.00	2.27	
Ethylbenzene*	<0.050	0.050	12/30/2016	ND	1.90	95.0	2.00	2.67	
Total Xylenes*	<0.150	0.150	12/30/2016	ND	5.54	92.3	6.00	2.61	
Total BTEX	<0.300	0.300	12/30/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2160**	16.0	01/03/2017	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/30/2016	ND	184	92.0	200	3.90	
DRO >C10-C28	<10.0	10.0	12/30/2016	ND	190	95.0	200	1.29	

Surrogate: 1-Chlorooctane *101 %* *35-147*

Surrogate: 1-Chlorooctadecane *115 %* *28-171*

Sample ID: T1 - 1' (H602893-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	01/03/2017	ND	400	100	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	12/29/2016	Sampling Date:	12/21/2016
Reported:	01/05/2017	Sampling Type:	Soil
Project Name:	STATE 19 #20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 2' (H602893-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1140**	16.0	01/03/2017	ND	400	100	400	0.00	

Sample ID: T1 - 3' (H602893-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3040**	16.0	01/03/2017	ND	400	100	400	0.00	

Sample ID: T1 - 4' (H602893-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1680**	16.0	01/03/2017	ND	400	100	400	0.00	

Sample ID: T1 - 6' (H602893-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/03/2017	ND	400	100	400	0.00	

Sample ID: T1 - 8' (H602893-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/03/2017	ND	400	100	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

COG OPERATING
DAKOTA NEEL
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	12/29/2016	Sampling Date:	12/21/2016
Reported:	01/05/2017	Sampling Type:	Soil
Project Name:	STATE 19 #20	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 10' (H602893-08)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	01/03/2017	ND	400	100	400	0.00	

Sample ID: T1 - 12' (H602893-09)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**720**	16.0	01/03/2017	ND	416	104	400	0.00	

Sample ID: T1 - 14' (H602893-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1230**	16.0	01/03/2017	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 OF 1

Company Name:	COG Operating LLC				
Project Manager:	Dakota Neel				
Address:	2208 West Main				
City:	Artesia	**State:** NM	**Zip**	88210	
Phone #:	432-215-2783	**Fax #:**			
Project #:		**Project Owner:**			
Project Name:	STATE 19 #20				
Project Location:					
Sampler Name:	Dakota Neel & Aaron Lieb				

BILL TO

P.O. #:	
Company:	COG Operating LLC
Attn:	Robert McNeill
Address:	600 W Illinois
City:	Midland
State: TX	**Zip:** 79701
Phone #:	(432) 221-0388
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING														
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH	Chloride												
H602883																												
1	T1 - SURFACE												12/21/16	9:00 AM	x	x	x											
2	T1 - 1'												12/21/16	9:00 AM			x											
3	T1 - 2'												12/21/16	9:00 AM			x											
4	T1 - 3'												12/21/16	9:00 AM			x											
5	T1 - 4'												12/21/16	9:00 AM			x											
6	T1 - 6'												12/21/16	9:00 AM			x											
7	T1 - 8'												12/21/16	9:00 AM			x											
8	T1 - 10'												12/21/16	9:00 AM			x											
9	T1 - 12'												12/21/16	9:00 AM			x											
10	T1 - 14'												12/21/16	9:00 AM			x											

Relinquished By:	**Date:** 12-29-16	**Received By:**	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 12:05		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	**Date:**	**Received By:**	REMARKS:
	Time:		dneel2@concho.com
			rgrubbs@concho.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: #75 5.2°c

Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No

CHECKED BY: (Initials)

Please only run deeper horizons for BTEX AND TPH if Benzene exceeds 10ppm, BTEX exceeds 50ppm, and TPH exceeds 5000ppm.

FORM-006 R 2.0

. Please fax written changes to 575-393-2476

Analytical Report 571335

for

Tetra Tech- Midland

Project Manager: Ike Tavarez

State S19 # 20

212C-MD-00958.28

22-DEC-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

22-DEC-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **571335**
State S19 # 20
Project Address: Eddy Co, NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 571335. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 571335 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 571335

Tetra Tech- Midland, Midland, TX

State S19 # 20

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 9-10	S	12-13-17 00:00		571335-005
BH-1 14-15	S	12-13-17 00:00		571335-006
BH-1 19-20	S	12-13-17 00:00		571335-007
BH-1 0-1	S	12-13-17 00:00		Not Analyzed
BH-1 2-3	S	12-13-17 00:00		Not Analyzed
BH-1 4-5	S	12-13-17 00:00		Not Analyzed
BH-1 6-7	S	12-13-17 00:00		Not Analyzed

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: State S19 # 20

Project ID: *212C-MD-00958.28*
Work Order Number(s): *571335*

Report Date: *22-DEC-17*
Date Received: *12/15/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 571335

Tetra Tech- Midland, Midland, TX

Project Name: State S19 # 20

Project Id: 212C-MD-00958.28
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Fri Dec-15-17 01:00 pm
Report Date: 22-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	571335-005		571335-006		571335-007					
	Field Id:	BH-1 9-10		BH-1 14-15		BH-1 19-20					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Dec-13-17 00:00		Dec-13-17 00:00		Dec-13-17 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Dec-20-17 08:30		Dec-20-17 11:20		Dec-20-17 11:20					
	Analyzed:	Dec-20-17 14:04		Dec-20-17 14:46		Dec-20-17 15:07					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		40.2	4.97	28.4	4.90	14.2	4.98				

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

BS / BSD Recoveries

Project Name: State S19 # 20

Work Order #: 571335 **Project ID:** 212C-MD-00958.28

Analyst: LRI **Date Prepared:** 12/20/2017 **Date Analyzed:** 12/20/2017

Lab Batch ID: 3036429 **Sample:** 7636277-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	259	104	250	262	105	1	90-110	20	

Analyst: LRI **Date Prepared:** 12/20/2017 **Date Analyzed:** 12/20/2017

Lab Batch ID: 3036587 **Sample:** 7636292-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	267	107	250	264	106	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: State S19 # 20

Work Order # : 571335 **Project ID:** 212C-MD-00958.28

Lab Batch ID: 3036429 **QC- Sample ID:** 571265-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/20/2017 **Date Prepared:** 12/20/2017 **Analyst:** LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	232	248	485	102	248	484	102	0	90-110	20	

Lab Batch ID: 3036429 **QC- Sample ID:** 571663-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/20/2017 **Date Prepared:** 12/20/2017 **Analyst:** LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1010	250	1230	88	250	1240	92	1	90-110	20	X

Lab Batch ID: 3036587 **QC- Sample ID:** 571335-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/20/2017 **Date Prepared:** 12/20/2017 **Analyst:** LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	28.4	245	295	109	245	289	106	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: State S19 # 20

Work Order # : 571335 **Project ID:** 212C-MD-00958.28

Lab Batch ID: 3036587 **QC- Sample ID:** 571336-010 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/20/2017 **Date Prepared:** 12/20/2017 **Analyst:** LRI

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1200	248	1400	81	248	1390	77	1	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

571335

Client Name: COG

Site Manager: Ike Tavarez

Project Name: State 519 #20

Project Location: (county, state) Eddy Co NM

Project #: 212C-MD-00958.28

Invoice to: COG

Receiving Laboratory: Xenco

Sampler Signature: Dan Cenzales

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
	BH-1 0-1 HOLD	12/13/17			X				X		1	
	" 2-3 HOLD				X				X		1	
	" 4-5 HOLD				X				X		1	
	" 6-7 HOLD				X				X		1	
	" 9-10 #				X				X		1	
	" 14-15				X				X		1	
	" 19-20				X				X		1	

ANALYSIS REQUEST (Circle or Specify Method No.)

	Hold
BTEX 8021B BTEX 8260B	
TPH TX1005 (Ext to C35)	
TPH 8015M (GRO - DRO - ORO - MRO)	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082 / 608	
NORM	
PLM (Asbestos)	
Chloride	X
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	
	X
	X
	X

Relinquished by: Date: 12/15/17 Time: 10C

Received by: Date: 12-15-17 Time: 1:00

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature

Temp: 0.3°C IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 0.1°C

REI

Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/15/2017 01:00:00 PM

Work Order #: 571335

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 12/15/2017

Checklist reviewed by: Kelsey Brooks Date: 12/20/2017

APPENDIX II

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company:	COG Operating LLC	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	STATE S 19 #020	Facility Type:	Flowline

Surface Owner: State	Mineral Owner:	API No. 30-015-32060

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	19	17S	29E	990'	South	330'	West	Eddy

Latitude 32.8155899 **Longitude** 104.1203995

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 0.5bbls of Oil & 7bbls of Produced Water	Volume Recovered: 0bbls of Oil & 2bbls of Produced Water
Source of Release: Flowline	Date and Hour of Occurrence: 10-06-2016 09:00 am	Date and Hour of Discovery: 10-06-2016 09:00 am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A steel flowline corroded due to age. Placed a clap on the damaged area until the line can be replaced with a polyline.

Describe Area Affected and Cleanup Action Taken.*

This release occurred within the pasture, alongside the road. Concho will have the spill site sampled 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: Robert Grubbs Jr.	Approved by Environmental Specialist:
Title: Senior Environmental Coordinator	Approval Date: / Expiration Date:
E-mail Address: rgrubbs@concho.com	Conditions of Approval: / Attached ☐
Date: October 7, 2016 Phone: 432-683-7443	

* Attach Additional Sheets If Necessary

APPENDIX III

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company:	COG Operating LLC	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	STATE S 19 #020	Facility Type:	Flowline

Surface Owner: State	Mineral Owner:	API No. 30-015-32060

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	19	17S	29E	990’	South	330’	West	Eddy

Latitude 32.8155899 **Longitude** 104.1203995

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 0.5bbls of Oil & 7bbls of Produced Water	Volume Recovered: 0bbls of Oil & 2bbls of Produced Water
Source of Release: Flowline	Date and Hour of Occurrence: 10-06-2016 09:00 am	Date and Hour of Discovery: 10-06-2016 09:00 am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A steel flowline corroded due to age. A clamp was placed on the damaged area until the line can be replaced with a polyline.

Describe Area Affected and Cleanup Action Taken.*

This release occurred within the pasture, alongside the road. Following the release an assessment of impacted soils was conducted and a work plan was submitted and subsequently approved by the NMOCD and NMSLO on April 4, 2018 and April 19, 2018 respectively. Remediation activities were conducted in accordance with the NMOCD/NMSLO approved workplan.

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: Dakota Neel

Printed Name: Dakota Neel

Title: HSE Coordinator

E-mail Address: dneel2@concho.com

Date: February 21, 2019 Phone: 575-746-2010

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Ashley Maxwell

Approval Date: 5/8/2023 Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 206721

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 206721
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	5/8/2023