March 10, 2019

Mike Bratcher (District 1 Release)
Oil Conservation Division, District 1
1625 N. French Dr.
Hobbs, NM

Crystal Weaver
Bureau of Land Management
620 E. Green St.
Carlsbad, NM 88220

Re: Closure Report
GC Federal #15 (12/12/18)
RP#: 1RP-5319
GPS: 32.81558, -103.80045
Unit Letter P, Section 19, Township 17 South, Range 32 East
Lea County, New Mexico

Mr., Bratcher /Ms. Weaver,

COG Operating, LLC (COG) is pleased to submit the following work plan in response to a release that occurred at the GC Federal #15 Tank Battery located in Unit Letter P, Section 19, Township 17 South and Range 32 East in Lea County, New Mexico.

BACKGROUND

The release was discovered on December 12, 2018 and a C-141 initial report was submitted and approved by the New Mexico Oil Conservation Division (NMOCD). The release was caused by a stuffing box leak that occurred and remained on the pad. Approximately four (4) barrels of oil and four (4) barrels of produced water were released and recovered 3.5 barrels of crude oil and 3.5 barrels of water. The initial C-141 is shown in Appendix A.

GROUNDWATER AND REGULATORY

According to the New Mexico Office of the State Engineer (NMOSE), reported water wells are in Section 1, 10 and 12 with groundwater depth of 225', 132' and 120' below surface, respectively. Based on the Chevron Groundwater Trend map, the depth to groundwater in the project vicinity is greater than 200-feet below ground surface (BGS). The water well information is shown in Appendix B.

Fields, Vanessa, EMNRD

From: Fields, Vanessa, EMNRD
Sent: Tuesday, March 12, 2019 1:57 PM
To: Ike Tavarez; EMNRD-OCD-District1spills; Crystal Weaver (caweaver@blm.gov)
Cc: James_Amos@blm.gov; Deborah McKinney (dmckinne@blm.gov); Jennifer Knowlton; Dakota Neel; Sheldon Hitchcock; Rebecca Haskell; DeAnn Grant
Subject: RE: [EXT] COG Operating - GC Federal #15 1RP 5319 (12-12-18) - Closure Report

Good afternoon Ike,

Per our conversation this afternoon the OCD grants closure approval for the GC Federal #15 1RP 5319, However, the depth to groundwater is incorrect in the final report. Based on a review the groundwater is between 50'-100'. The final analytical results are below the 10,000 mg/kg closure criteria therefore the results meet the table 1 standard. The release will remain open in the OCD database as it does not meet the final restoration, reclamation and re-vegetation requirements.

19.15.29.13 RESTORATION, RECLAMATION AND RE-VEGETATION:

(D)(1) The reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suit

Please let me know if you should have any further questions.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: Ike Tavarez <itavarez@concho.com>
Sent: Tuesday, March 12, 2019 12:54 PM
To: EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Crystal Weaver (caweaver@blm.gov) <caweaver@blm.gov>
Cc: James_Amos@blm.gov; Deborah McKinney (dmckinne@blm.gov) <dmckinne@blm.gov>; Jennifer Knowlton <jknowlton@concho.com>; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock <SLHitchcock@concho.com>; Rebecca Haskell <RHaskell@concho.com>; DeAnn Grant <agrant@concho.com>
Subject: [EXT] COG Operating - GC Federal #15 1RP 5319 (12-12-18) - Closure Report

To Whom It May Be Concern,

Here the Closure Report for the release that occurred at the COG - GC Federal #15 located in Lea County, New Mexico. Let me know of you have any questions or comments on the report, thanks

Ike Tavarez, PG
Senior HSE Supervisor
COG Operating LLC
600 W Illinois Avenue | Midland, TX 79701
Direct: 432-685-2573| Main: 432-683-7443
Cell: 432-701-8630
itavarez@concho.com

A risk based evaluation and site determinations were perform in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production facilities in New Mexico (effective August 14, 2018). According to the site characterization evaluation, no other receptors (water wells, playas, karst, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
None Encountered	>100 feet

Delineation and Closure Criteria:

Remedial Action Levels (RALs)	
Chlorides	20,000 mg/kg
TPH (GRO and DRO and MRO)	2,500 mg/kg
TPH (GRO and DRO)	1,000 mg/kg
Benzene	10 mg/kg
Total BTEX	50 mg/kg

REMEDIATION PLAN

All samples were below the Table 1 closure criteria concentrations and thus no remediation will occur at the site.

SITE RECLAMATION AND RESTORATION

All fluids remained on the pad and no reclamation at the site is required.

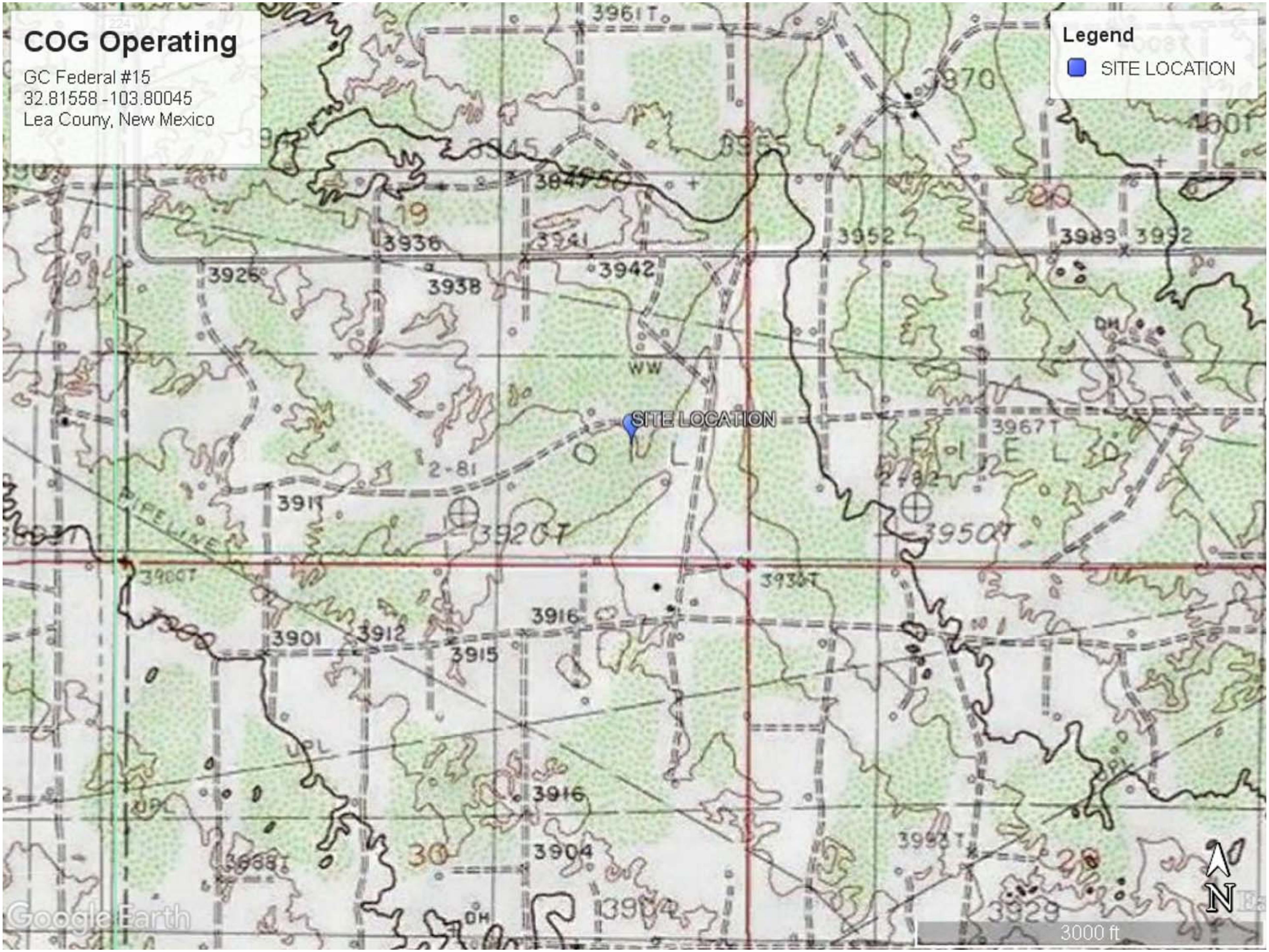
CLOSURE REQUEST

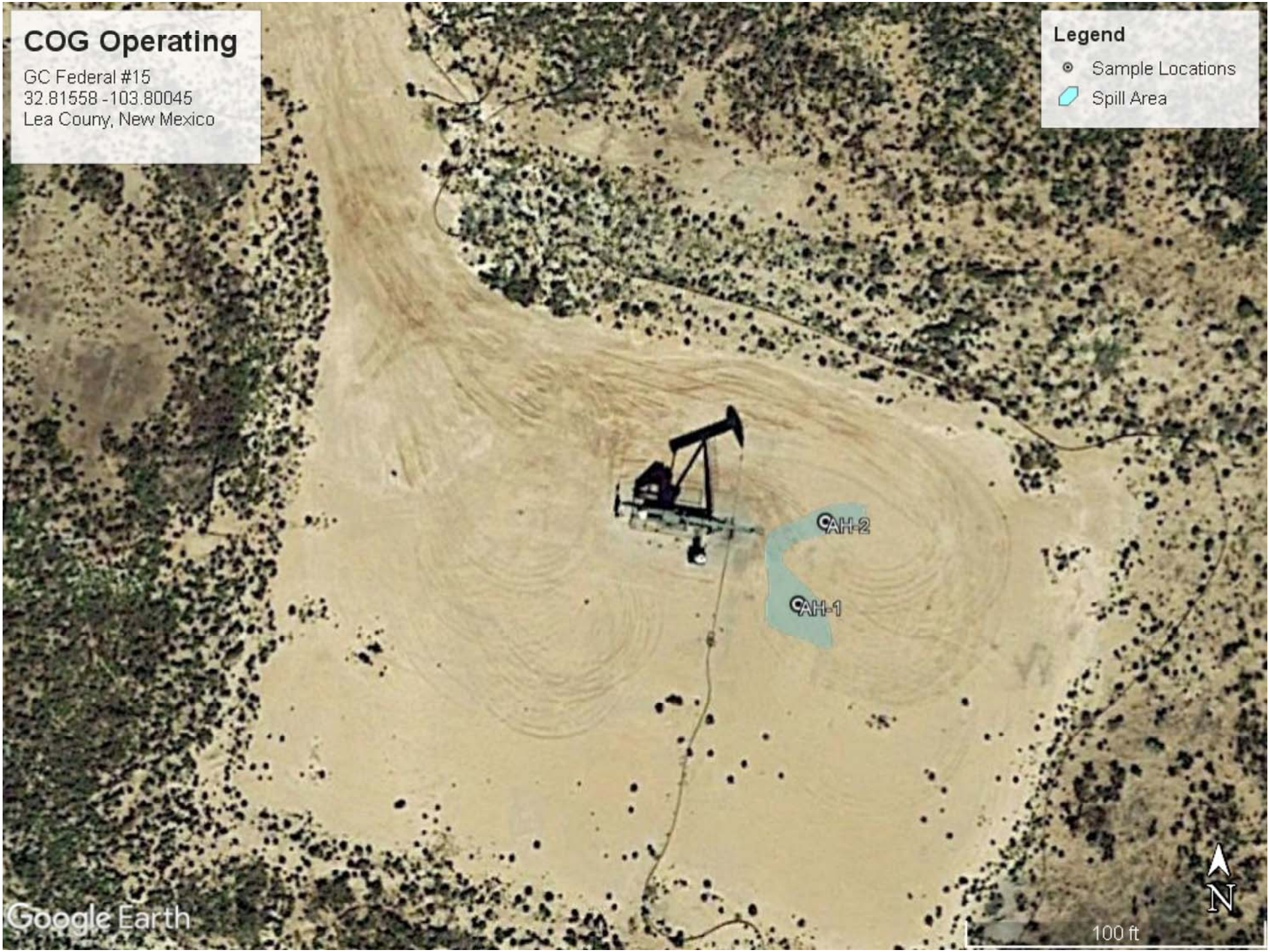
Based on the information provided, COG requesting closure of the release. The signed C-141 Final is included in Appendix A. Should you have any questions or concerns on the closure report, please do not hesitate to contact me.
Sincerely,

Sincerely,
Concho Operating, LLC

Ike Tavarez, P. G.
Senior HSE Supervisor
itavarez@concho.com

Figures


COG Operating
GC Federal #15
32.81558 -103.80045
Lea Couny, New Mexico
Legend
SITE LOCATION
SITE LOCATION
OIL FIELD
PIPELINE
3000 ft
N
Google Earth


COG Operating
GC Federal #15
32.81558 -103.80045
Lea County, New Mexico
Legend
Sample Locations
Spill Area
AH-2
AH-1
N
100 ft
Google Earth

Tables

Table 1
COG Operating LLC.
GC Federal #15
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)							Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	*Total*	GRO	DRO	*Total*			
Average Depth to Groundwater (ft)			**>100'**											
NMOCD Remediation Action Limits (mg/kg)					**-**	**-**	**-**	**2,500**	**-**	**-**	**1,000**	**10**	**50**	**20,000**
#1	01/08/19 00:00	0-1	X		<15.0	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	470
#1	01/08/19 00:00	1-1.5	X		<15.0	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	9.86
#2	01/08/19 00:00	0-1	X		<15.0	49.0	<15.0	49.0	<15.0	49.0	49.0	<0.00200	<0.00200	2860
#2	01/08/19 00:00	1-1.5	X		<15.0	15.6	<15.0	15.6	<15.0	15.6	15.6	<0.00199	<0.00199	2080

(-) Not Analyzed

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	1 RP 5319
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Robert McNeill	Contact Telephone	(432) 683-7443
Contact email	RMcNeill@concho.com	Incident # *(assigned by OCD)*	
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.81558 Longitude -103.80045

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	GC Federal #015	Site Type	Wellhead
Date Release Discovered	December 12, 2018	API# *(if applicable)*	30-025-39111

Unit Letter	Section	Township	Range	County
P	19	17S	32E	Lea

Surface Owner: ☐ State ■ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

■ Crude Oil	Volume Released (bbls) 4	Volume Recovered (bbls) 3.5
■ Produced Water	Volume Released (bbls) 4	Volume Recovered (bbls) 3.5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	■ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a leak from the stuffing box packing. The packing has been replaced. The release was on location. A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	1 RP 5319
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ■ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ■ The source of the release has been stopped.
- ■ The impacted area has been secured to protect human health and the environment.
- ■ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ■ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: DeAnn Grant Title: HSE Administrative Assistant

Signature: DeAnn Grant Date: 12/12/2018

email: agrant@concho.com Telephone: (432) 253-4513

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP 5319
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Ike Tavarez Title: Senior HSE Supervisor

Signature: Date: 3/11/19

email: itavarez@concho.com Telephone: 432-683-7443

OCD Only

Received by: Vanessa Fields Date: 3/12/2019

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: See Attached E-mail Date:

Printed Name: Title:

Appendix B

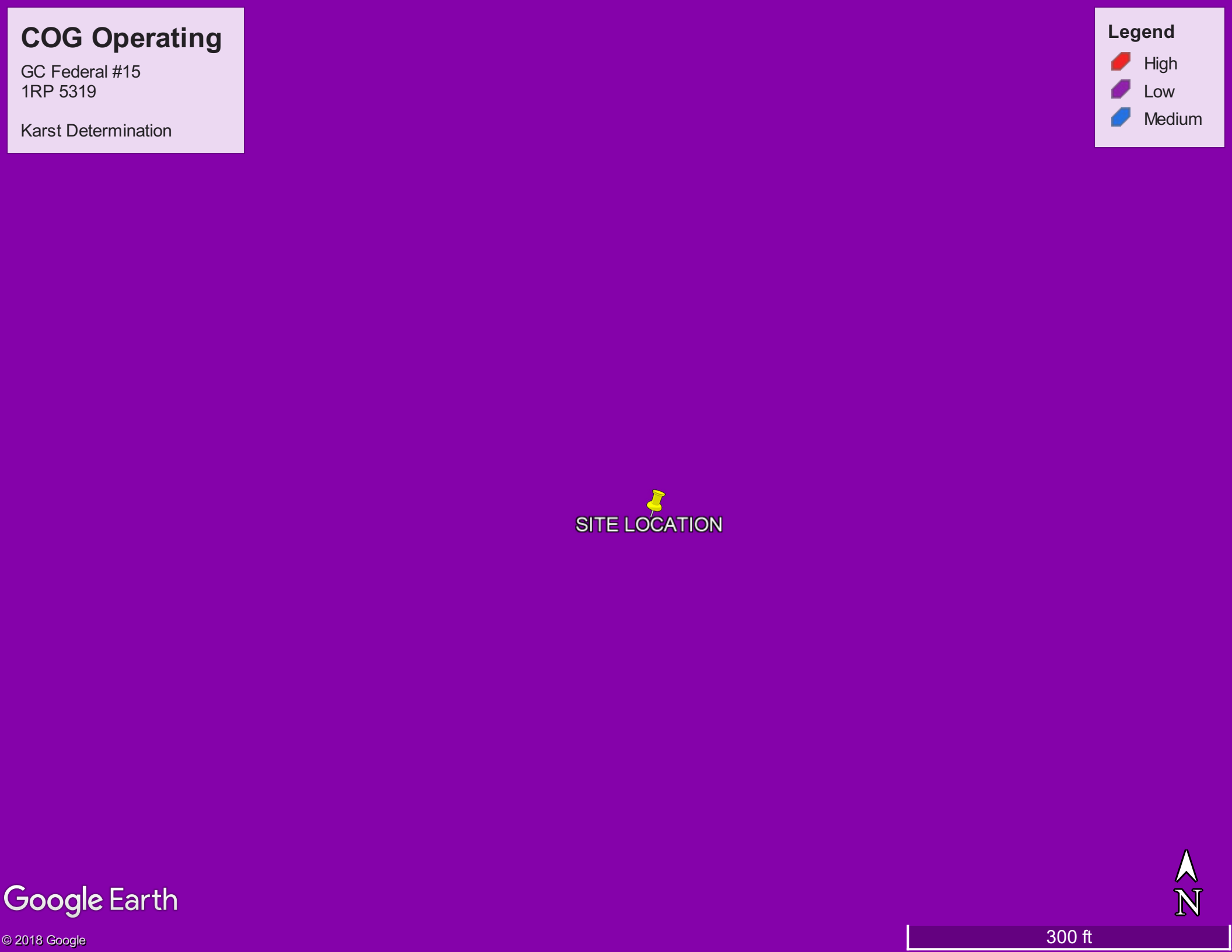
COG Operating

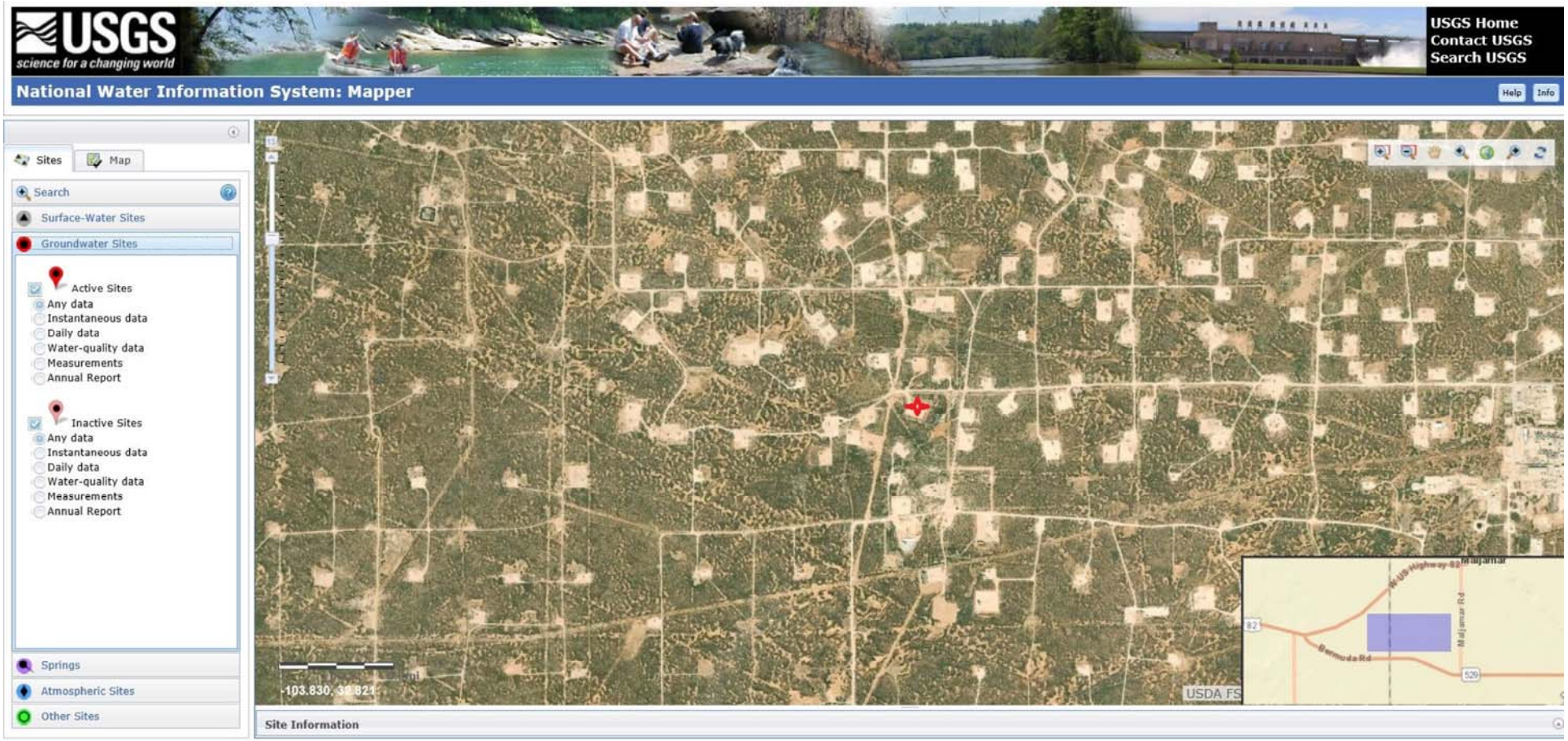
GC Federal #15
1RP 5319

Karst Determination

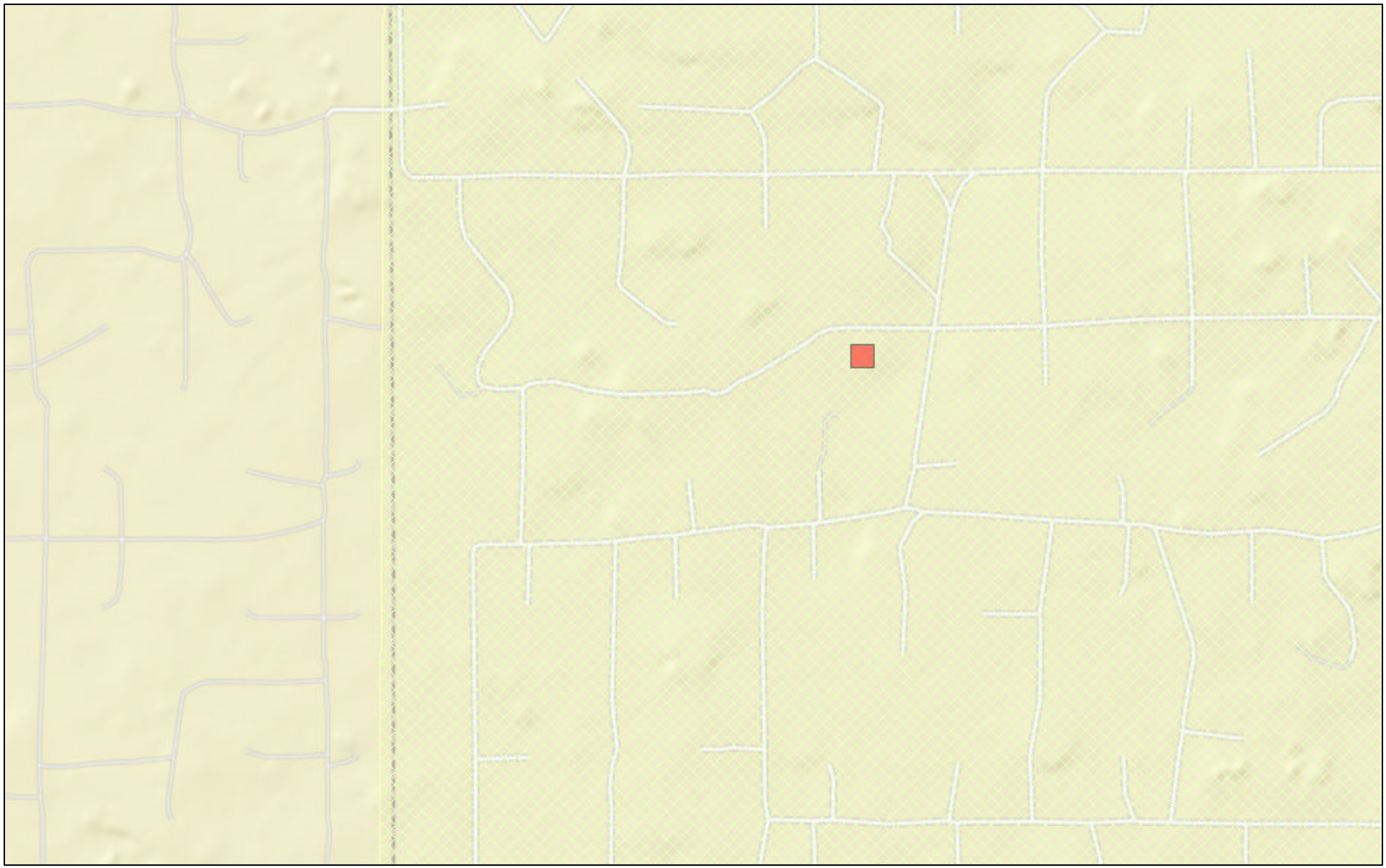
Legend

- High
- Low
- Medium




USGS
science for a changing world
USGS Home
Contact USGS
Search USGS
National Water Information System: Mapper
Help
Info
Sites
Map
Search
Surface-Water Sites
Groundwater Sites
Active Sites
Any data
Instantaneous data
Daily data
Water-quality data
Measurements
Annual Report
Inactive Sites
Any data
Instantaneous data
Daily data
Water-quality data
Measurements
Annual Report
Springs
Atmospheric Sites
Other Sites
-103.830, 32.821
USDA FS
Site Information

New Mexico NFHL Data



March 8, 2019

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

FEMA
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan,

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This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

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	Tws	Rng	X	Y		Depth Well	Depth Water	Water Column
L 03980		L	LE	2	2	2	01	17S	32E	620466	3637594*		270	200	70
L 03980 S		L	LE	4	4	4	02	17S	32E	618870	3636170*		255	179	76
L 03980 S2		L	LE	3	2	3	01	17S	32E	619470	3636581*		225	175	50
L 04019		L	LE	4	3	4	02	17S	32E	618468	3636166*		182		
L 04020		L	LE	3	3	4	02	17S	32E	618268	3636166*		200		
L 04021	R	L	LE	3	4	4	02	17S	32E	618670	3636170*		190		
L 04021 POD3		L	LE		3	4	03	17S	32E	616761	3636252*		247		
L 04021 S		L	LE	2	4	4	03	17S	32E	617262	3636354*		260		
L 13047 POD1		L	LE				11	17S	32E	618187	3635254*		140		
L 13050 POD1		L	LE	2	2	1	10	17S	32E	616463	3635945*		156	132	24
RA 08855		RA	LE	4	1	1	10	17S	32E	616061	3635742*		158		
RA 09505		RA	LE	2	2	1	10	17S	32E	616462	3635944		147		
RA 09505 S		RA	LE	2	2	1	10	17S	32E	616463	3635945*		144		
RA 10175		RA	LE		2	1	28	17S	32E	614814	3631005*		158		
RA 11684 POD1		RA	LE	1	1	4	11	17S	32E	618216	3635124		275		
RA 11684 POD2		RA	LE	1	1	4	11	17S	32E	618313	3635248		275		
RA 11684 POD3		RA	LE	3	3	1	11	17S	32E	618262	3635371		275		
RA 11684 POD4		RA	LE	1	3	2	11	17S	32E	618334	3635521		275		
RA 11684 POD5		RA	LE	3	1	4	11	17S	32E	618353	3635047		275		
RA 11734 POD1		RA	LE	2	2	1	10	17S	32E	616556	3635929		165		
RA 11911 POD1		RA	LE	1	3	1	24	17S	32E	619192	3632296		35		
RA 12020 POD1		RA	LE	2	2	1	28	17S	32E	614828	3630954		120	81	39
RA 12042 POD1		RA	LE	2	2	1	28	17S	32E	614891	3631181		400		

Average Depth to Water: **153 feet**

Minimum Depth: **81 feet**

Maximum Depth: **200 feet**

Record Count: 23

PLSS Search:

Township: 17S **Range:** 32E

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

Appendix C

Certificate of Analysis Summary 611146

COG Operating LLC, Artesia, NM

Project Name: GC Federal #15 (12-12-18)

Project Id:
Contact: Ike Tavarez
Project Location: Lea Co., NM

Date Received in Lab: Fri Jan-11-19 03:15 pm
Report Date: 17-JAN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	611146-001		611146-002		611146-003		611146-004					
	Field Id:	#1 0-1		#1 0.1.5'		#2 0-1		#2 1-.1.5'					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jan-08-19 00:00		Jan-08-19 00:00		Jan-08-19 00:00		Jan-08-19 00:00					
BTEX by EPA 8021B	***Extracted:***	Jan-14-19 09:00		Jan-14-19 09:00		Jan-14-19 09:00		Jan-14-19 09:00					
	Analyzed:	Jan-14-19 19:36		Jan-14-19 18:59		Jan-14-19 19:56		Jan-14-19 19:18					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00401	0.00401	<0.00402	0.00402	<0.00400	0.00400	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	Jan-14-19 14:00		Jan-14-19 14:00		Jan-14-19 14:00		Jan-14-19 14:00					
	Analyzed:	Jan-14-19 21:20		Jan-14-19 22:06		Jan-14-19 22:13		Jan-14-19 22:19					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		470	4.99	9.86	4.96	2860	25.0	2080	24.9				
TPH By SW8015 Mod	***Extracted:***	Jan-14-19 08:00		Jan-14-19 08:00		Jan-14-19 08:00		Jan-14-19 08:00					
	Analyzed:	Jan-14-19 16:06		Jan-14-19 16:25		Jan-14-19 16:45		Jan-14-19 17:04					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Diesel Range Organics		<15.0	15.0	<15.0	15.0	49.0	15.0	15.6	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0	49.0	15.0	15.6	15.0				

Analytical Report 611146

for

COG Operating LLC

Project Manager: Ike Tavarez

GC Federal #15 (12-12-18)

17-JAN-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

17-JAN-19

Project Manager: **Ike Tavarez**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **611146**
GC Federal #15 (12-12-18)
Project Address: Lea 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) 611146. 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. 611146 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
#1 0-1	S	01-08-19 00:00		611146-001
#1 0.1.5'	S	01-08-19 00:00		611146-002
#2 0-1	S	01-08-19 00:00		611146-003
#2 1-.1.5'	S	01-08-19 00:00		611146-004
#2 2-2.5'	S	01-08-19 00:00		Not Analyzed

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3075713 TPH By SW8015 Mod

Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 611110-001 S,611110-001 SD.

Batch: LBA-3075762 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3075814 Chloride by EPA 300

Lab Sample ID 611146-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 611146-001, -002, -003, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#1 0-1**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-001	Date Collected:	01.08.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	01.14.19 14.00	Basis:	Wet Weight
Seq Number:	3075814				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**470**	4.99	mg/kg	01.14.19 21.20		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	01.14.19 08.00	Basis:	Wet Weight
Seq Number:	3075713				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	01.14.19 16.06	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	01.14.19 16.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.14.19 16.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.14.19 16.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	01.14.19 16.06	
o-Terphenyl	84-15-1	94	%	70-135	01.14.19 16.06	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#1 0-1**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-001	Date Collected:	01.08.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	01.14.19 09.00	Basis:	Wet Weight
Seq Number:	3075762				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.14.19 19.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.14.19 19.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.14.19 19.36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.14.19 19.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.14.19 19.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.14.19 19.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.14.19 19.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.14.19 19.36	
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.14.19 19.36	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#1 0.1.5'**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-002	Date Collected:	01.08.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	01.14.19 14.00	Basis:	Wet Weight
Seq Number:	3075814				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.86**	4.96	mg/kg	01.14.19 22.06		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	01.14.19 08.00	Basis:	Wet Weight
Seq Number:	3075713				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	01.14.19 16.25	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	01.14.19 16.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.14.19 16.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.14.19 16.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	01.14.19 16.25	
o-Terphenyl	84-15-1	98	%	70-135	01.14.19 16.25	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#1 0.1.5'**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-002	Date Collected:	01.08.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	01.14.19 09.00	Basis:	Wet Weight
Seq Number:	3075762				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.14.19 18.59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.14.19 18.59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.14.19 18.59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.14.19 18.59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.14.19 18.59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.14.19 18.59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.14.19 18.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.14.19 18.59	
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.14.19 18.59	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#2 0-1**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-003	Date Collected:	01.08.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	01.14.19 14.00	Basis:	Wet Weight
Seq Number:	3075814				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2860**	25.0	mg/kg	01.14.19 22.13		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	01.14.19 08.00	Basis:	Wet Weight
Seq Number:	3075713				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	01.14.19 16.45	U	1
Diesel Range Organics	C10C28DRO	**49.0**	15.0	mg/kg	01.14.19 16.45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.14.19 16.45	U	1
Total TPH	PHC635	**49.0**	15.0	mg/kg	01.14.19 16.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	01.14.19 16.45	
o-Terphenyl	84-15-1	98	%	70-135	01.14.19 16.45	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#2 0-1**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-003	Date Collected:	01.08.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	01.14.19 09.00	Basis:	Wet Weight
Seq Number:	3075762				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.14.19 19.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.14.19 19.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.14.19 19.56	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.14.19 19.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.14.19 19.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.14.19 19.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.14.19 19.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	01.14.19 19.56	
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.14.19 19.56	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#2 1-.1.5'**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-004	Date Collected:	01.08.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	01.14.19 14.00	Basis:	Wet Weight
Seq Number:	3075814				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2080**	24.9	mg/kg	01.14.19 22.19		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	01.14.19 08.00	Basis:	Wet Weight
Seq Number:	3075713				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	01.14.19 17.04	U	1
Diesel Range Organics	C10C28DRO	**15.6**	15.0	mg/kg	01.14.19 17.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.14.19 17.04	U	1
Total TPH	PHC635	**15.6**	15.0	mg/kg	01.14.19 17.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	01.14.19 17.04	
o-Terphenyl	84-15-1	98	%	70-135	01.14.19 17.04	

Certificate of Analytical Results 611146

COG Operating LLC, Artesia, NM

GC Federal #15 (12-12-18)

Sample Id:	**#2 1-.1.5'**	Matrix:	Soil	Date Received:	01.11.19 15.15
Lab Sample Id:	611146-004	Date Collected:	01.08.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	01.14.19 09.00	Basis:	Wet Weight
Seq Number:	3075762				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.14.19 19.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.14.19 19.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.14.19 19.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.14.19 19.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.14.19 19.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.14.19 19.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.14.19 19.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.14.19 19.18	
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.14.19 19.18	

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

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

QC Summary 611146

COG Operating LLC

GC Federal #15 (12-12-18)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3075814 Matrix: Solid Date Prep: 01.14.19
MB Sample Id: 7669721-1-BLK LCS Sample Id: 7669721-1-BKS LCSD Sample Id: 7669721-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	254	102	237	95	90-110	7	20	mg/kg	01.14.19 19:38	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3075814 Matrix: Soil Date Prep: 01.14.19
Parent Sample Id: 610735-016 MS Sample Id: 610735-016 S MSD Sample Id: 610735-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.0	249	239	89	246	92	90-110	3	20	mg/kg	01.14.19 19:57	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3075814 Matrix: Soil Date Prep: 01.14.19
Parent Sample Id: 611146-001 MS Sample Id: 611146-001 S MSD Sample Id: 611146-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	470	250	654	74	671	80	90-110	3	20	mg/kg	01.14.19 21:26	X

Analytical Method: **TPH By SW8015 Mod** Prep Method: TX1005P
Seq Number: 3075713 Matrix: Solid Date Prep: 01.14.19
MB Sample Id: 7669707-1-BLK LCS Sample Id: 7669707-1-BKS LCSD Sample Id: 7669707-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<7.99	999	907	91	932	93	70-135	3	20	mg/kg	01.14.19 11:13	
Diesel Range Organics	<8.12	999	1020	102	1060	106	70-135	4	20	mg/kg	01.14.19 11:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		124		128		70-135	%	01.14.19 11:13
o-Terphenyl	104		131		123		70-135	%	01.14.19 11:13

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 611146

COG Operating LLC

GC Federal #15 (12-12-18)

Analytical Method: **TPH By SW8015 Mod** Prep Method: TX1005P
Seq Number: 3075713 Matrix: Soil Date Prep: 01.14.19
Parent Sample Id: 611110-001 MS Sample Id: 611110-001 S MSD Sample Id: 611110-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<7.98	997	1240	124	1240	124	70-135	0	20	mg/kg	01.14.19 12:34	
Diesel Range Organics	<8.10	997	1360	136	1350	135	70-135	1	20	mg/kg	01.14.19 12:34	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	140	**	142	**	70-135	%	01.14.19 12:34
o-Terphenyl	137	**	139	**	70-135	%	01.14.19 12:34

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3075762 Matrix: Solid Date Prep: 01.14.19
MB Sample Id: 7669728-1-BLK LCS Sample Id: 7669728-1-BKS LCSD Sample Id: 7669728-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.106	106	0.109	109	70-130	3	35	mg/kg	01.14.19 11:45	
Toluene	<0.000455	0.0998	0.101	101	0.104	104	70-130	3	35	mg/kg	01.14.19 11:45	
Ethylbenzene	<0.000564	0.0998	0.0980	98	0.101	101	70-130	3	35	mg/kg	01.14.19 11:45	
m,p-Xylenes	<0.00101	0.200	0.193	97	0.199	100	70-130	3	35	mg/kg	01.14.19 11:45	
o-Xylene	<0.000344	0.0998	0.0956	96	0.0986	99	70-130	3	35	mg/kg	01.14.19 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		100		70-130	%	01.14.19 11:45
4-Bromofluorobenzene	87		92		88		70-130	%	01.14.19 11:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3075762 Matrix: Soil Date Prep: 01.14.19
Parent Sample Id: 611186-001 MS Sample Id: 611186-001 S MSD Sample Id: 611186-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000681	0.100	0.106	105	0.106	105	70-130	0	35	mg/kg	01.14.19 12:23	
Toluene	0.00115	0.100	0.0992	98	0.0987	98	70-130	1	35	mg/kg	01.14.19 12:23	
Ethylbenzene	0.00144	0.100	0.0934	92	0.0932	92	70-130	0	35	mg/kg	01.14.19 12:23	
m,p-Xylenes	0.00292	0.200	0.184	91	0.183	90	70-130	1	35	mg/kg	01.14.19 12:23	
o-Xylene	0.00139	0.100	0.0911	90	0.0911	90	70-130	0	35	mg/kg	01.14.19 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	01.14.19 12:23
4-Bromofluorobenzene	91		93		70-130	%	01.14.19 12:23

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Analysis Request of Chain of Custody Record

1011140

CONCHO

One Concho
Center/600/Illinois
Avenue/Midland, Texas
Tel (432) 683-7443

Client Name: COG

Site Manager: Ike Tavarez

Project Name: CC Federal #15 (12-12-18)

Project Location (county, state): Lea Co NM

Project #:

Invoice to: COG - Ike Tavarez

Receiving Laboratory: Xenco

Sampler Signature: Ike Tavarez

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - 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	Chloride	Sulfate	TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	Hold
	#1 0-1	1-8-19			X			X	1			X		X												X						X
	#1 1-1.5'				X			X	1			X		X												X						
	#2 0-1				X			X	1			X		X												X						
	#2 1-1.5'				X			X	1			X		X												X						
	#2 2-2.5'				X			X	1			X		X												X						
															Hold																	X

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	1-11-19	1515		1/11/19	1515
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature: 3.2/3.1 IR

REMARKS:

- [x] RUSH: 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: COG Operating LLC

Date/ Time Received: 01/11/2019 03:15:00 PM

Work Order #: 611146

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)?	3.1
#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)?	**N/A**
#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: Brianna Teel Date: 01/11/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 01/14/2019
Jessica Kramer