CONCHO

June 4, 2019

Dylan Rose-Coss
Oil Conservation Division, District 1
1625 N. French Dr.
Hobbs, NM 88240

Re: Closure Report
COG Operating
Dominator 25 Federal Com #607 (3/8/19)
API #: 30-025-44712
GPS: 32.09502, -103.528131
RP#: 1RP-5433
Unit Letter N, Section 25, Township 25 South, Range 33 East
Lea County, New Mexico

Mr. Rose-Coss,

COG Operating, LLC (COG) is pleased to submit the following closure report in response to a release that occurred at the Dominator 25 Federal Com #607 located in Unit Letter N, Section 25, Township 25 South, Range 33 East in Lea County, New Mexico.

BACKGROUND

The release was discovered on March 8, 2019 and a C-141 initial report was submitted and approved by the New Mexico Oil Conservation Division (NMOCD). The produced water release was caused by gasket failure on the frac tank cleanout plate. A vacuum truck was used to remove all of the freestanding fluids. All of the fluids remained on the pad impacting an area measured approximately 25' x 30'. Approximately 5 barrels of produced water were released and recovered approximately 4 barrels of water. The initial C-141 is shown in Appendix A.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the New Mexico Office of the State Engineer (NMOSE), reported a water well located in Section 26 with depth to water of 110 feet below surface. The USGS database showed two (2) wells in Sections 20 with a depth to water of 202 feet and 212 feet below surface. The water well information is shown in Appendix B.

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 delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

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

Table 1 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

All of the samples were below the Table 1 closure criteria concentrations and no remediation is required at the site.

SITE RECLAMATION AND RESTORATION

The spill remained on the facility pad and no reclamation is required for the release.

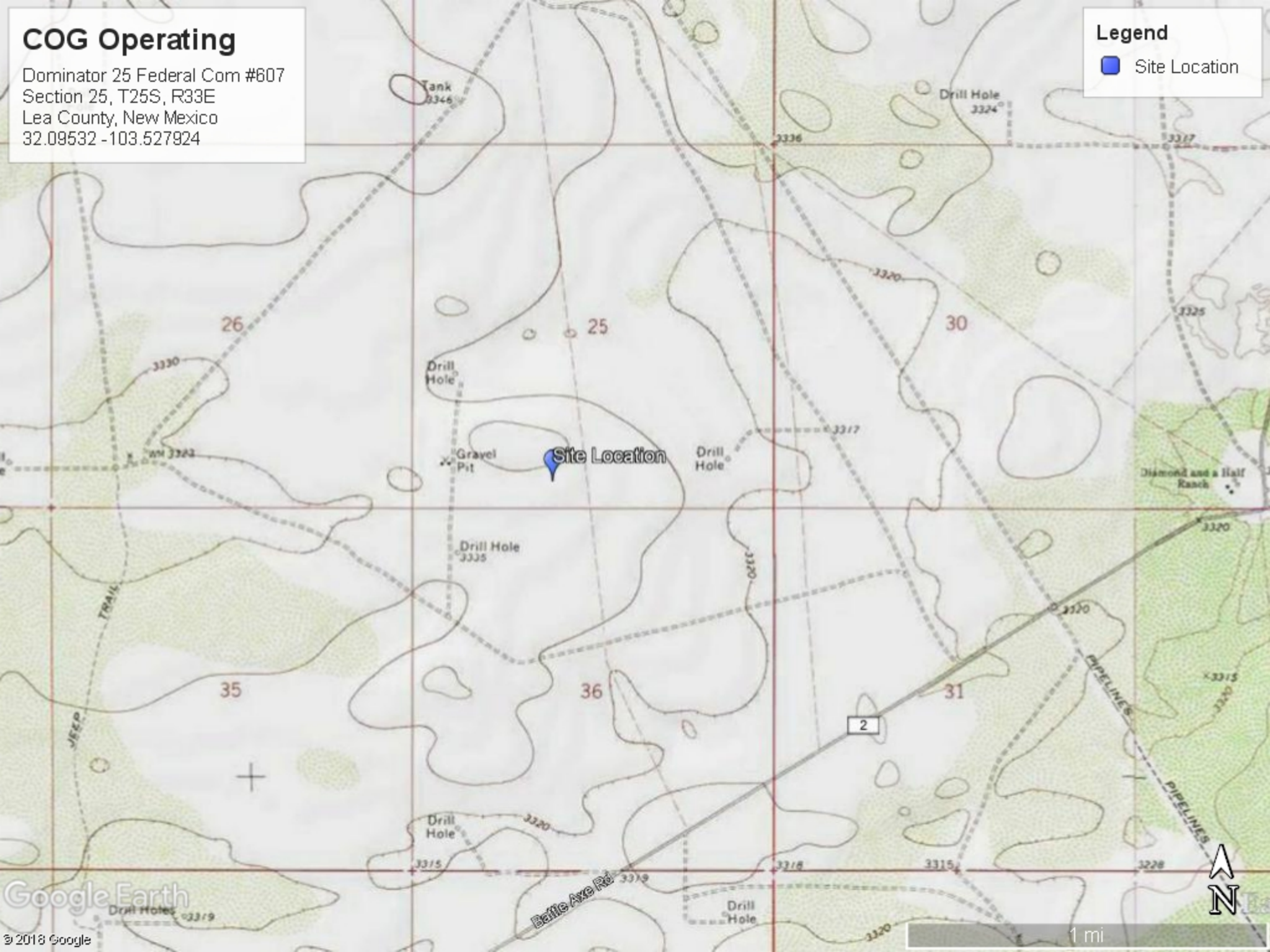
CLOSURE REQUEST

Based on the results and remediation performed, 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
Dominator 25 Federal Com #607
Section 25, T25S, R33E
Lea County, New Mexico
32.09532 -103.527924
Legend
Site Location
Site Location
Gravel Pit
Drill Hole
Tank
Diamond and a Half Ranch
Battle Axe Rd
PIPELINES
JEEP TRAIL
26
25
30
35
36
31
2
N
1 mi
Google Earth
© 2018 Google


COG Operating
Dominator 25 Federal Com #607
Section 25, T25S, R33E
Lea County, New Mexico
32.095032 -103.527924
Legend
Frac Tank
Sample locations
Spill Area
North
West
AH-1
East
South
N
Google Earth
80 ft

Tables

Table 1
COG Operating LLC.
Dominator 25 Federal Com #607
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**
AH-1	5/2/2019	0-1	X		<15.0	406	73.8	406	<15.0	406	406	<0.002	<0.002	311
AH-1	5/2/2019	1-1.5	X		<15.0	377	204	581	<15.0	377	377	<0.002	<0.002	914
AH-1	5/2/2019	2-2.5	X		<15.0	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0	<0.002	<0.002	1160
North Wall	5/2/2019	-	X		<14.9	306	<14.9	306	<14.9	306	306	<0.050	<0.050	181
South Wall	5/2/2019	-	X		<15.0	23.3	<15.0	23	<15.0	23.3	23.3	<0.050	0.975	108
West Wall	5/2/2019	-	X		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	1130
East Wall	5/2/2019	-	X		<14.9	22.7	<14.9	22.7	<14.9	22.7	22.7	<0.050	<0.050	201

(-) 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	
District RP	1 RP 5433
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jennifer Knowlton	Contact Telephone	(575) 748-1570
Contact email	JKnowlton@concho.com	Incident # *(assigned by OCD)*	
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.09502 Longitude -103.528131

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Dominator 25 Federal Com #607H	Site Type	Frac Tank
Date Release Discovered	March 8, 2019	API# *(if applicable)*	30-025-44712

Unit Letter	Section	Township	Range	County
N	25	25S	33E	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)	Volume Recovered (bbls)
■ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 4
	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 gasket failure on the clean out plate. The gasket is being 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	
District RP	1RP-5433
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100' (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☑ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☑ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☑ Data table of soil contaminant concentration data
- ☑ Depth to water determination
- ☑ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☑ Topographic/Aerial maps
- ☑ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5433
Facility ID	
Application ID	

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: Ike Tavarez Title: Senior HSE Supervisor

Signature:  Date: 6/4/19

email: itavarez@concho.com Telephone: 432-701-8630

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5433
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: 6/4/2019

email: itavarez@concho.com Telephone: (432) 701-8630

OCD Only

Received by: _____ Date: _____

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: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B

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
C 02312		CUB	LE	1	2	1	05	25S	33E	632241	3559687*	150	90	60
C 02313		CUB	LE	2	3	3	26	25S	33E	636971	3552098*	150	110	40
C 02373 CLW317846	O	CUB	LE	2	1	1	13	25S	33E	638518	3556544*	625	185	440
C 02373 S		CUB	LE	1	2	1	13	25S	33E	638721	3556549*	625	185	440

Average Depth to Water: **142 feet**

Minimum Depth: **90 feet**

Maximum Depth: **185 feet**

Record Count: 4

PLSS Search:

Township: 25S **Range:** 33E

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

6/2/19 3:26 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

National Water Information System: Mapper

Help Info

Sites Map

Search

Search by Street Address:

32.095032 -103.527924

Search by Place Name:

Enter Placename

Search by Site Number(s):

Enter Site Number(s)

Search by State/Territory:

Select an Area

Search by Watershed Region:

Select a Region

Surface-Water Sites

Groundwater Sites

Springs

Atmospheric Sites

Other Sites

-103.544, 32.128

Source: Esri, DigitalGlobe, GeoEye, Earthstar G

Site Information

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320615103352601

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

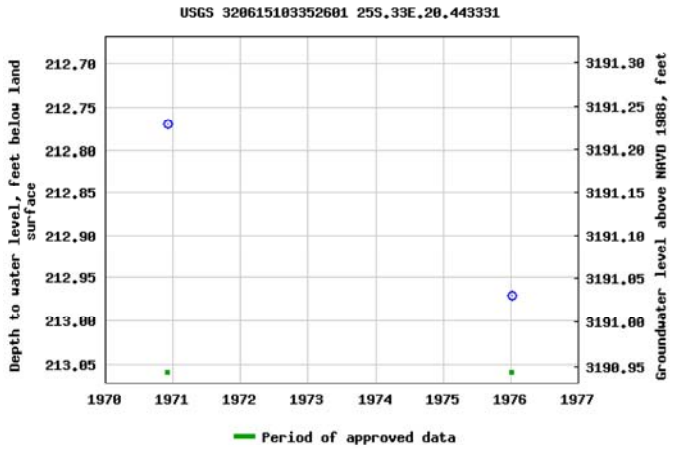
USGS 320615103352601 25S.33E.20.443331

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°06'15", Longitude 103°35'26" NAD27
Land-surface elevation 3,404 feet above NAVD88
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320631103351401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

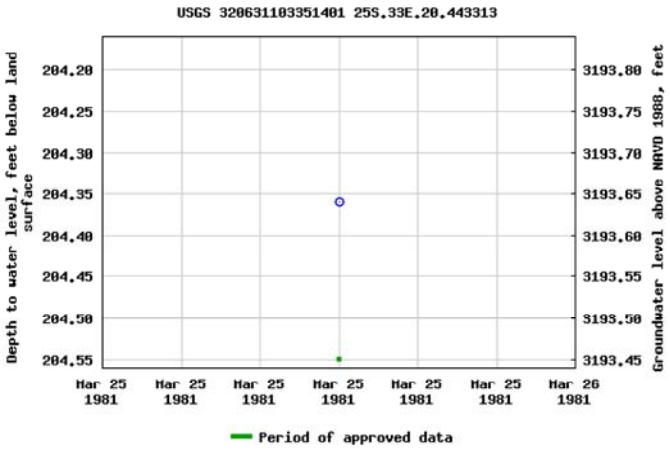
USGS 320631103351401 25S.33E.20.443313

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code --
Latitude 32°06'31", Longitude 103°35'14" NAD27
Land-surface elevation 3,398 feet above NAVD88
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320523103294401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

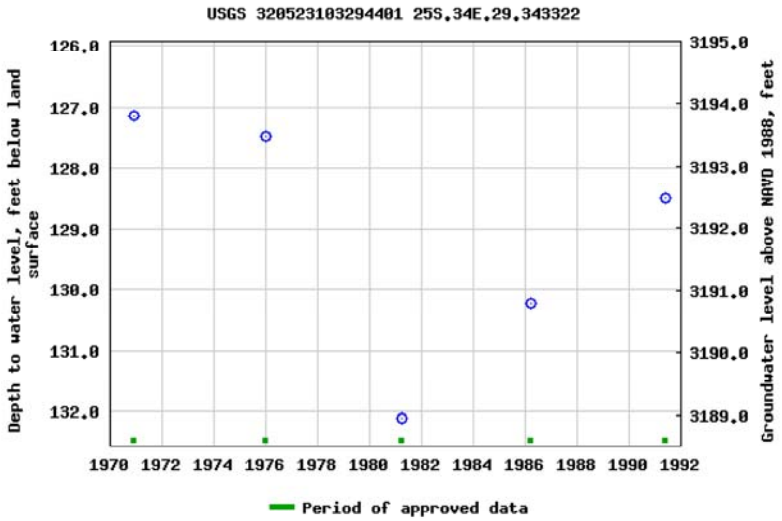
USGS 320523103294401 25S.34E.29.343322

Available data for this site: Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°05'23", Longitude 103°29'44" NAD27
Land-surface elevation 3,321 feet above NAVD88
The depth of the well is 165 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320419103302201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

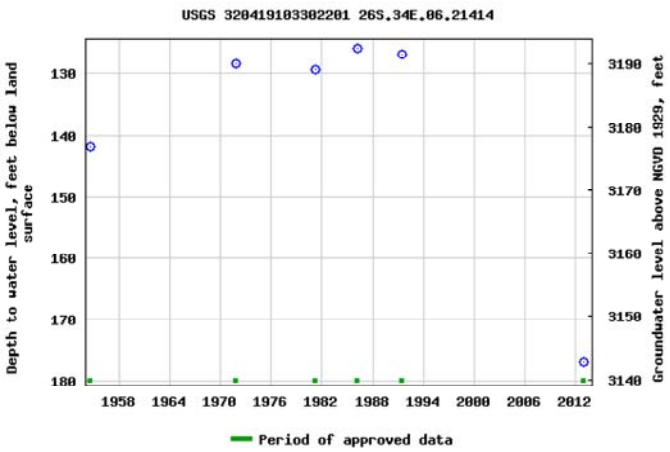
USGS 320419103302201 26S.34E.06.21414

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°04'37.9", Longitude 103°30'20.5" NAD83
Land-surface elevation 3,319.00 feet above NGVD29
The depth of the well is 360 feet below land surface.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320407103331001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

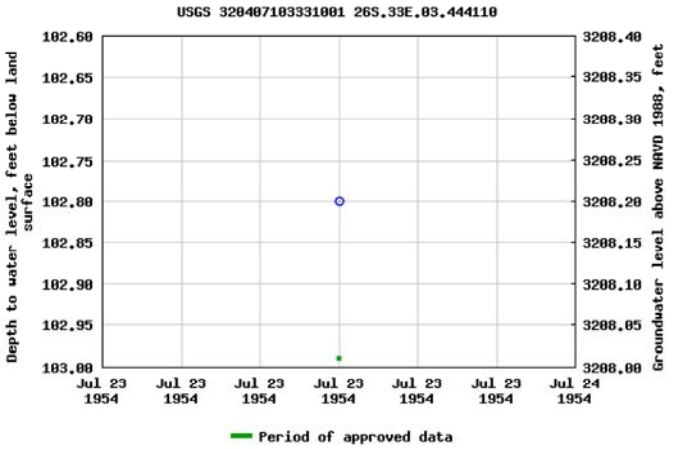
USGS 320407103331001 26S.33E.03.444110

Available data for this site | Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code --
Latitude 32°04'07", Longitude 103°33'10" NAD27
Land-surface elevation 3,311 feet above NAVD88
The depth of the well is 180 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

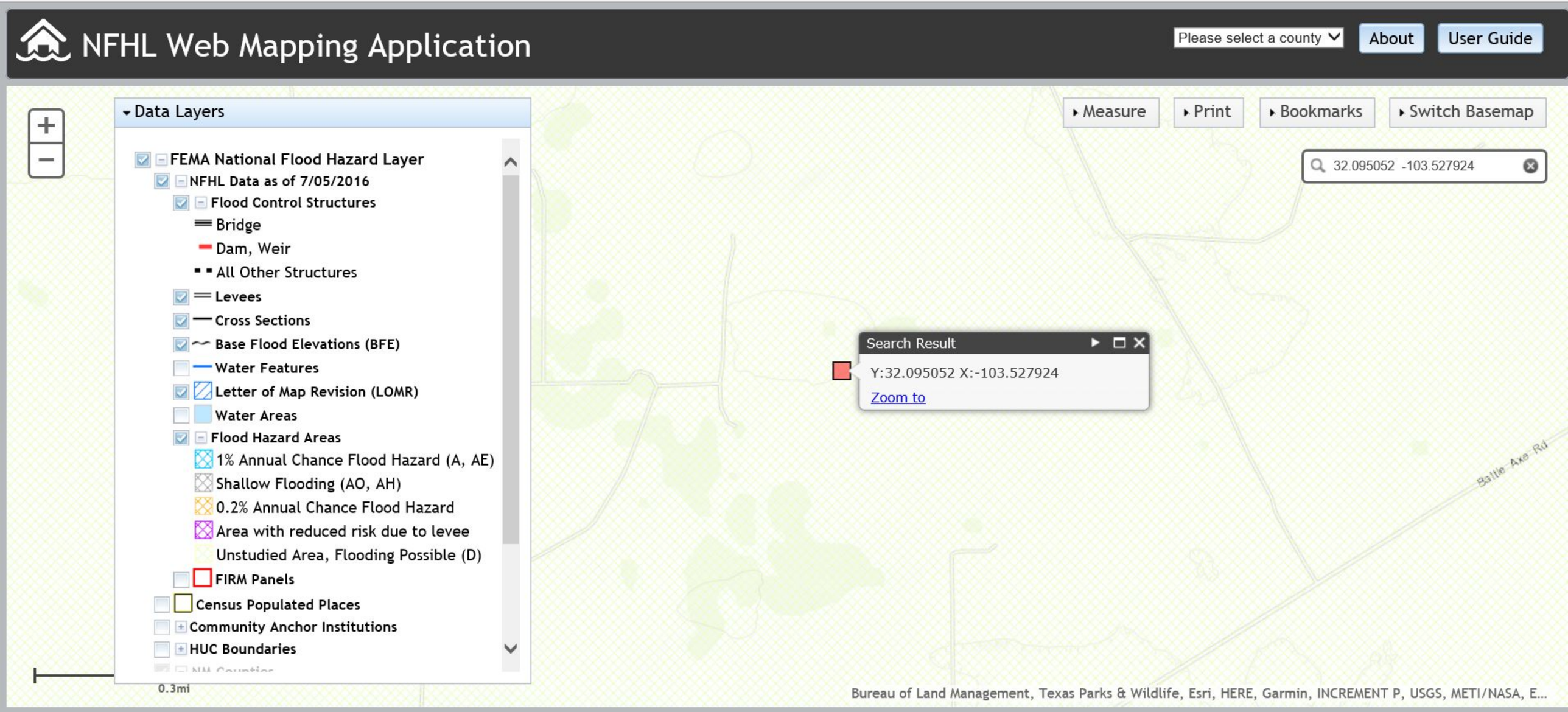
Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

COG Operating

Dominator 25 Federal Com #607
Section 25, T25S, R33E
Lea County, New Mexico
32.095032 -103.527924

Legend

- High
- Low
- Medium
- Site Location


NFHL Web Mapping Application
Please select a county
About
User Guide
Measure
Print
Bookmarks
Switch Basemap
32.095052 -103.527924
Data Layers
FEMA National Flood Hazard Layer
NFHL Data as of 7/05/2016
Flood Control Structures
Bridge
Dam, Weir
All Other Structures
Levees
Cross Sections
Base Flood Elevations (BFE)
Water Features
Letter of Map Revision (LOMR)
Water Areas
Flood Hazard Areas
1% Annual Chance Flood Hazard (A, AE)
Shallow Flooding (AO, AH)
0.2% Annual Chance Flood Hazard
Area with reduced risk due to levee
Unstudied Area, Flooding Possible (D)
FIRM Panels
Census Populated Places
Community Anchor Institutions
HUC Boundaries
Search Result
Y:32.095052 X:-103.527924
Zoom to
Battle Axe Rd
0.3mi
Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, E...

Appendix C

Certificate of Analysis Summary 623115

COG Operating LLC, Artesia, NM

Project Name: Dominator 25 Federal Com 607H

Project Id:

Contact: Ike Tavarez

Project Location: Lea County, New Mexico

Date Received in Lab: Fri May-03-19 08:42 am

Report Date: 07-MAY-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	623115-001		623115-002		623115-003		623115-004		623115-005		623115-006	
	Field Id:	AH-1 (0-1)		AH-1 (1-1.5')		AH-1 (2-2.5')		North (0-0.5')		South (0-0.5')		East (0-0.5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-02-19 00:00		May-02-19 00:00		May-02-19 00:00		May-02-19 00:00		May-02-19 00:00		May-02-19 00:00	
BTEX by EPA 8021B	***Extracted:***	May-03-19 11:30		May-03-19 11:30		May-03-19 11:30		May-03-19 11:30		May-03-19 11:30		May-03-19 11:30	
	Analyzed:	May-03-19 13:35		May-03-19 13:54		May-03-19 14:13		May-03-19 14:32		May-03-19 14:51		May-03-19 15:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	May-03-19 10:00		May-03-19 10:00		May-03-19 10:00		May-03-19 10:00		May-03-19 10:00		May-03-19 10:00	
	Analyzed:	May-03-19 13:25		May-03-19 13:32		May-03-19 13:40		May-03-19 13:47		May-03-19 14:09		May-03-19 14:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		311	4.95	914	4.95	1160	5.04	181	4.99	108	4.98	201	4.95
TPH By SW8015 Mod	***Extracted:***	May-04-19 10:00		May-04-19 10:00		May-04-19 10:00		May-04-19 10:00		May-04-19 10:00		May-04-19 10:00	
	Analyzed:	May-04-19 23:03		May-05-19 00:04		May-05-19 00:25		May-05-19 00:45		May-05-19 01:05		May-05-19 01:26	
	Units/RL:	mg/kg	RL	mg/kg	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	<14.9	14.9	<15.0	15.0	<14.9	14.9
Diesel Range Organics		406	15.0	377	15.0	<15.0	15.0	306	14.9	23.3	15.0	22.7	14.9
Motor Oil Range Hydrocarbons (MRO)		73.8	15.0	204	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9
Total TPH		480	15.0	581	15.0	<15.0	15.0	306	14.9	23.3	15.0	22.7	14.9

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 623115

COG Operating LLC, Artesia, NM

Project Name: Dominator 25 Federal Com 607H

Project Id:
Contact: Ike Tavarez
Project Location: Lea County, New Mexico

Date Received in Lab: Fri May-03-19 08:42 am
Report Date: 07-MAY-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	623115-007					
	Field Id:	West (0-0.5')					
	Depth:						
	Matrix:	SOIL					
	Sampled:	May-02-19 00:00					
BTEX by EPA 8021B	***Extracted:***	May-03-19 11:30					
	Analyzed:	May-03-19 15:29					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00400	0.00400				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	May-03-19 10:00					
	Analyzed:	May-03-19 14:46					
	Units/RL:	mg/kg	RL				
Chloride		1130	5.00				
TPH By SW8015 Mod	***Extracted:***	May-04-19 10:00					
	Analyzed:	May-05-19 01:47					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons		<15.0	15.0				
Diesel Range Organics		767	15.0				
Motor Oil Range Hydrocarbons (MRO)		180	15.0				
Total TPH		947	15.0				

Jessica Kramer
Project Assistant

Analytical Report 623115

for

COG Operating LLC

Project Manager: Ike Tavarez

Dominator 25 Federal Com 607H

07-MAY-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
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-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

07-MAY-19

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

Reference: XENCO Report No(s): **623115**
Dominator 25 Federal Com 607H
Project Address: Lea County, New Mexico

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) 623115. 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. 623115 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 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH-1 (0-1)	S	05-02-19 00:00		623115-001
AH-1 (1-1.5')	S	05-02-19 00:00		623115-002
AH-1 (2-2.5')	S	05-02-19 00:00		623115-003
North (0-0.5')	S	05-02-19 00:00		623115-004
South (0-0.5')	S	05-02-19 00:00		623115-005
East (0-0.5')	S	05-02-19 00:00		623115-006
West (0-0.5')	S	05-02-19 00:00		623115-007

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Dominator 25 Federal Com 607H

Project ID:
Work Order Number(s): *623115*

Report Date: *07-MAY-19*
Date Received: *05/03/2019*

Sample receipt non conformances and comments:

PER CLIENTS EMAIL, CORRECTED PROJECT NAME. NEW VERSION GENERATED JK 05/07/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3088027 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 623115-003.

Lab Sample ID 623115-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 623115-001, -002, -003, -004, -005, -006, -007.
The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**AH-1 (0-1)**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-001	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**311**	4.95	mg/kg	05.03.19 13.25		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.04.19 23.03	U	1
Diesel Range Organics	C10C28DRO	**406**	15.0	mg/kg	05.04.19 23.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**73.8**	15.0	mg/kg	05.04.19 23.03		1
Total TPH	PHC635	**480**	15.0	mg/kg	05.04.19 23.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.04.19 23.03	
o-Terphenyl	84-15-1	122	%	70-135	05.04.19 23.03	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**AH-1 (0-1)**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-001	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.03.19 13.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.03.19 13.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.03.19 13.35	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.03.19 13.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.03.19 13.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.03.19 13.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.03.19 13.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.03.19 13.35	
4-Bromofluorobenzene	460-00-4	113	%	70-130	05.03.19 13.35	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**AH-1 (1-1.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-002	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**914**	4.95	mg/kg	05.03.19 13.32		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.05.19 00.04	U	1
Diesel Range Organics	C10C28DRO	**377**	15.0	mg/kg	05.05.19 00.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**204**	15.0	mg/kg	05.05.19 00.04		1
Total TPH	PHC635	**581**	15.0	mg/kg	05.05.19 00.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.19 00.04	
o-Terphenyl	84-15-1	111	%	70-135	05.05.19 00.04	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**AH-1 (1-1.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-002	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.03.19 13.54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.03.19 13.54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.03.19 13.54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.03.19 13.54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.03.19 13.54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.03.19 13.54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.03.19 13.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.03.19 13.54	
4-Bromofluorobenzene	460-00-4	119	%	70-130	05.03.19 13.54	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**AH-1 (2-2.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-003	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1160**	5.04	mg/kg	05.03.19 13.40		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.05.19 00.25	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	05.05.19 00.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.05.19 00.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.05.19 00.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.05.19 00.25	
o-Terphenyl	84-15-1	102	%	70-135	05.05.19 00.25	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**AH-1 (2-2.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-003	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.03.19 14.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.03.19 14.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.03.19 14.13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.03.19 14.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.03.19 14.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.03.19 14.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.03.19 14.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	05.03.19 14.13	
4-Bromofluorobenzene	460-00-4	134	%	70-130	05.03.19 14.13	**

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**North (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-004	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**181**	4.99	mg/kg	05.03.19 13.47		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	05.05.19 00.45	U	1
Diesel Range Organics	C10C28DRO	**306**	14.9	mg/kg	05.05.19 00.45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	05.05.19 00.45	U	1
Total TPH	PHC635	**306**	14.9	mg/kg	05.05.19 00.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.19 00.45	
o-Terphenyl	84-15-1	117	%	70-135	05.05.19 00.45	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**North (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-004	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.03.19 14.32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.03.19 14.32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.03.19 14.32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.03.19 14.32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.03.19 14.32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.03.19 14.32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.03.19 14.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.03.19 14.32	
4-Bromofluorobenzene	460-00-4	116	%	70-130	05.03.19 14.32	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**South (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-005	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**108**	4.98	mg/kg	05.03.19 14.09		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.05.19 01.05	U	1
Diesel Range Organics	C10C28DRO	**23.3**	15.0	mg/kg	05.05.19 01.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.05.19 01.05	U	1
Total TPH	PHC635	**23.3**	15.0	mg/kg	05.05.19 01.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.19 01.05	
o-Terphenyl	84-15-1	101	%	70-135	05.05.19 01.05	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**South (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-005	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.03.19 14.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.03.19 14.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.03.19 14.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.03.19 14.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.03.19 14.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.03.19 14.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.03.19 14.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.03.19 14.51	
4-Bromofluorobenzene	460-00-4	121	%	70-130	05.03.19 14.51	

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**East (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-006	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**201**	4.95	mg/kg	05.03.19 14.39		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	05.05.19 01.26	U	1
Diesel Range Organics	C10C28DRO	**22.7**	14.9	mg/kg	05.05.19 01.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	05.05.19 01.26	U	1
Total TPH	PHC635	**22.7**	14.9	mg/kg	05.05.19 01.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.19 01.26	
o-Terphenyl	84-15-1	101	%	70-135	05.05.19 01.26	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**East (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-006	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.03.19 15.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.03.19 15.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.03.19 15.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.03.19 15.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.03.19 15.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.03.19 15.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.03.19 15.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	05.03.19 15.10	
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.03.19 15.10	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**West (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-007	Date Collected:	05.02.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.03.19 10.00	Basis:	Wet Weight
Seq Number:	3087991				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1130**	5.00	mg/kg	05.03.19 14.46		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.04.19 10.00	Basis:	Wet Weight
Seq Number:	3088044				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.05.19 01.47	U	1
Diesel Range Organics	C10C28DRO	**767**	15.0	mg/kg	05.05.19 01.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**180**	15.0	mg/kg	05.05.19 01.47		1
Total TPH	PHC635	**947**	15.0	mg/kg	05.05.19 01.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.19 01.47	
o-Terphenyl	84-15-1	120	%	70-135	05.05.19 01.47	

Certificate of Analytical Results 623115

COG Operating LLC, Artesia, NM

Dominator 25 Federal Com 607H

Sample Id:	**West (0-0.5')**	Matrix:	Soil	Date Received:	05.03.19 08.42
Lab Sample Id:	623115-007	Date Collected:	05.02.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.03.19 11.30	Basis:	Wet Weight
Seq Number:	3088027				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.03.19 15.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.03.19 15.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.03.19 15.29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.03.19 15.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.03.19 15.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.03.19 15.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.03.19 15.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	05.03.19 15.29	
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.03.19 15.29	

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 623115

COG Operating LLC

Dominator 25 Federal Com 607H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3087991 — Matrix: Solid — Date Prep: 05.03.19
MB Sample Id: 7677138-1-BLK — LCS Sample Id: 7677138-1-BKS — LCSD Sample Id: 7677138-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.71	250	260	104	262	105	90-110	1	20	mg/kg	05.03.19 11:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3087991 — Matrix: Soil — Date Prep: 05.03.19
Parent Sample Id: 622948-001 — MS Sample Id: 622948-001 S — MSD Sample Id: 622948-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	922	249	1180	104	1180	104	90-110	0	20	mg/kg	05.03.19 12:11	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3087991 — Matrix: Soil — Date Prep: 05.03.19
Parent Sample Id: 623115-004 — MS Sample Id: 623115-004 S — MSD Sample Id: 623115-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	181	250	434	101	433	101	90-110	0	20	mg/kg	05.03.19 13:54	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3088044 — Matrix: Solid — Date Prep: 05.04.19
MB Sample Id: 7677204-1-BLK — LCS Sample Id: 7677204-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<8.00	1000	1060	106	70-135	mg/kg	05.04.19 22:22	
Diesel Range Organics	<8.13	1000	1090	109	70-135	mg/kg	05.04.19 22:22	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3088044 — Matrix: Soil — Date Prep: 05.04.19
Parent Sample Id: 623115-001 — MS Sample Id: 623115-001 S — MSD Sample Id: 623115-001 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	<7.99	998	978	98	1160	116	70-135	17	20	mg/kg	05.04.19 23:24	
Diesel Range Organics	406	998	1250	85	1530	113	70-135	20	20	mg/kg	05.04.19 23:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		129		70-135	%	05.04.19 23:24
o-Terphenyl	108		127		70-135	%	05.04.19 23:24

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 623115

COG Operating LLC

Dominator 25 Federal Com 607H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3088027 Matrix: Solid Date Prep: 05.03.19

MB Sample Id: 7677215-1-BLK LCS Sample Id: 7677215-1-BKS LCSD Sample Id: 7677215-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0973	98	0.104	103	70-130	7	35	mg/kg	05.03.19 11:43	
Toluene	<0.00198	0.0992	0.0935	94	0.0999	99	70-130	7	35	mg/kg	05.03.19 11:43	
Ethylbenzene	<0.00198	0.0992	0.102	103	0.108	107	70-130	6	35	mg/kg	05.03.19 11:43	
m,p-Xylenes	<0.00397	0.198	0.211	107	0.225	111	70-130	6	35	mg/kg	05.03.19 11:43	
o-Xylene	<0.00198	0.0992	0.104	105	0.110	109	70-130	6	35	mg/kg	05.03.19 11:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		96		96		70-130	%	05.03.19 11:43
4-Bromofluorobenzene	101		105		105		70-130	%	05.03.19 11:43

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3088027 Matrix: Soil Date Prep: 05.03.19

Parent Sample Id: 623115-001 MS Sample Id: 623115-001 S MSD Sample Id: 623115-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0826	83	0.0785	79	70-130	5	35	mg/kg	05.03.19 12:21	
Toluene	<0.00199	0.0996	0.0703	71	0.0682	68	70-130	3	35	mg/kg	05.03.19 12:21	X
Ethylbenzene	<0.00199	0.0996	0.0640	64	0.0641	64	70-130	0	35	mg/kg	05.03.19 12:21	X
m,p-Xylenes	<0.00398	0.199	0.132	66	0.134	67	70-130	2	35	mg/kg	05.03.19 12:21	X
o-Xylene	<0.00199	0.0996	0.0666	67	0.0670	67	70-130	1	35	mg/kg	05.03.19 12:21	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	05.03.19 12:21
4-Bromofluorobenzene	110		111		70-130	%	05.03.19 12:21

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

623115

Page 1 of 2

CONCHO

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

Client Name: COG	**Site Manager:** Ike Tavarez
Project Name: Dominator 25 Fed. Com 607H (3-8-19)	
Project Location: (county, state) Lea County, New Mexico	**Project #:**
Invoice to: COG - Ike Tavarez	
Receiving Laboratory: Xenco	**Sampler Signature:** Ike Tavarez.
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

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
	AH-1 (0-1)	5/2/19			S			X			X		X												X			
	AH-1 (1-1.5')				S			X			X		X												X			
	AH-1 (2-2.5')				S			X			X		X												X			
	North (0-0.5)				S			X			X		X												X			
	South (0-0.5')				S			X			X		X												X			
	East (0-0.5')				S			X			X		X												X			
	West (0-0.5')				S			X			X		X												X			

Relinquished by:	Date: 5/3/19	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Received by: Date: 5/3/19 Time: 0942

LAB USE ONLY

Sample Temperature 1.3/1.2 -01 RE

REMARKS:

☑ 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

Page 24 of 25

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 05/03/2019 08:42:00 AM

Work Order #: 623115

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
#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: 05/03/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 05/03/2019
Jessica Kramer

Photos