[Sheldon L. Hitchcock]
[HSE Coordinator]

January 11, 2019

Christina Hernandez
Oil Conservation Division, District 1
1625 N. French Dr.
Hobbs, NM 88240

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

Re: Closure Letter
Crockett State #002H
API #: 30-025-41080
RP#: 1RP-5075
Unit Letter H, Section 35, Township 25S, Range 32 E
Lea County, New Mexico

Ms. Hernandez/Mr. Mann,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the Crockett State #002H. This release occurred on May 22, 2018. Following the release an assessment of impacted soils was conducted. A remediation work plan was submitted to and subsequently approved by the New Mexico Oil Conservation Division (NMOCD) and the New Mexico State Land Office (NMSLO). A copy of the approved work plan is attached in Appendix V.

BACKGROUND

The Crockett State #002H is located in Unit Letter H, Section 20, Township 21 South and Range 33 East in Lea County, New Mexico. More specifically the latitude and longitude for this release are 32.4652519 North and -103.5866699 West.

On May 22, 2018, a valve on the casing failed resulting in the release of approximately fifteen (15) barrels (bbls) of produced water. All of the fluid remained on location.

Remediation activities were conducted in accordance with the approved work plan and NMOCD/NMSLO stipulations. The analytical results from the NMOCD and NMSLO stipulated confirmation soil sampling activities are summarized in the table below. A site diagram of the excavated area is presented in Appendix I.

GROUNDWATER AND SITE RANKING

According New Mexico Office of the State Engineer groundwater in the project vicinity is approximately five-hundred and seventy-two (572) feet below ground surface (BGS) (Appendix II). No water well or surface water was observed within one-thousand (1,000) feet of the release site. Therefore the site ranking for this release is zero (0) based on the following:

Depth to groundwater >100-feet
Distance to surface water body >1000-feet
Wellhead Protection Area >1000-feet

CONFIRMATION SOIL SAMPLING RESULTS

Sample ID	Sample Depth (ft)	Sample Date	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	*Total*			
NMOCD RRAL Limits (mg/kg)					-	-	-	5,000	10	50	600
BTTM-1	2.5	9/6/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	85.7
SW-1	N/A	9/6/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	41
SW-2	N/A	9/6/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	<4.98
SW-3	N/A	9/6/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	159
SW-4	N/A	9/12/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	345
SW-5	N/A	9/13/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	170
SW-6	N/A	9/14/2018		X	<15.0	<15.0	<15.0	0.0	<0.002	<0.002	1200
SW-7	N/A	9/15/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	105
SW-8	N/A	9/16/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	<4.95
2'/4'	N/A	9/17/2018		X	<15.0	<15.0	<15.0	0.0	<0.002	<0.002	1130
2'/4'	N/A	9/24/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	48
SW-6	N/A	9/24/2018	X		<15.0	<15.0	<15.0	0.0	<0.002	<0.002	96

CONFIRMATION SOIL SAMPLE LOCATION

Sample ID	Lat/Long
BTTM-1	32.465209 -103.586714
SW-1	32.465210 -103.586639
SW-2	32.465140 -103.586734
SW-3	32.465220 -103.586815
SW-4	32.465335 -103.586901
SW-5	32.465431 -103.586813
SW-6	32.465511 -103.586692
SW-7	32.465448 -103.586579
SW-8	32.465325 -103.586613
2'/4'	32.465285 -103.586758

REMEDIAL ACTIONS

- The impacted area in the vicinity of sample locations SP-1 and SP-2 was excavated to a depth of four (4) feet BGS.
- The impacted area in the vicinity of sample location SP-3 was excavated to a depth of two and one-half (2.5) feet BGS.
- Confirmation soil samples were taken from the sidewalls of the excavated area per NMOCD and NMSLO stipulations.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Upon receipt of analytical results confirming that all impacted soil above NMOCD RRAL's was successfully removed from the sidewalls, a liner was installed at the bottom of the four (4) foot BGS excavation in order to encapsulate the remaining chloride impacts.
- The excavation was backfilled with caliche and contoured to match the surrounding location.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the New Mexico State Land Office grant closure approval for the Crockett State #002H incident that occurred on May 22, 2018.

Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,

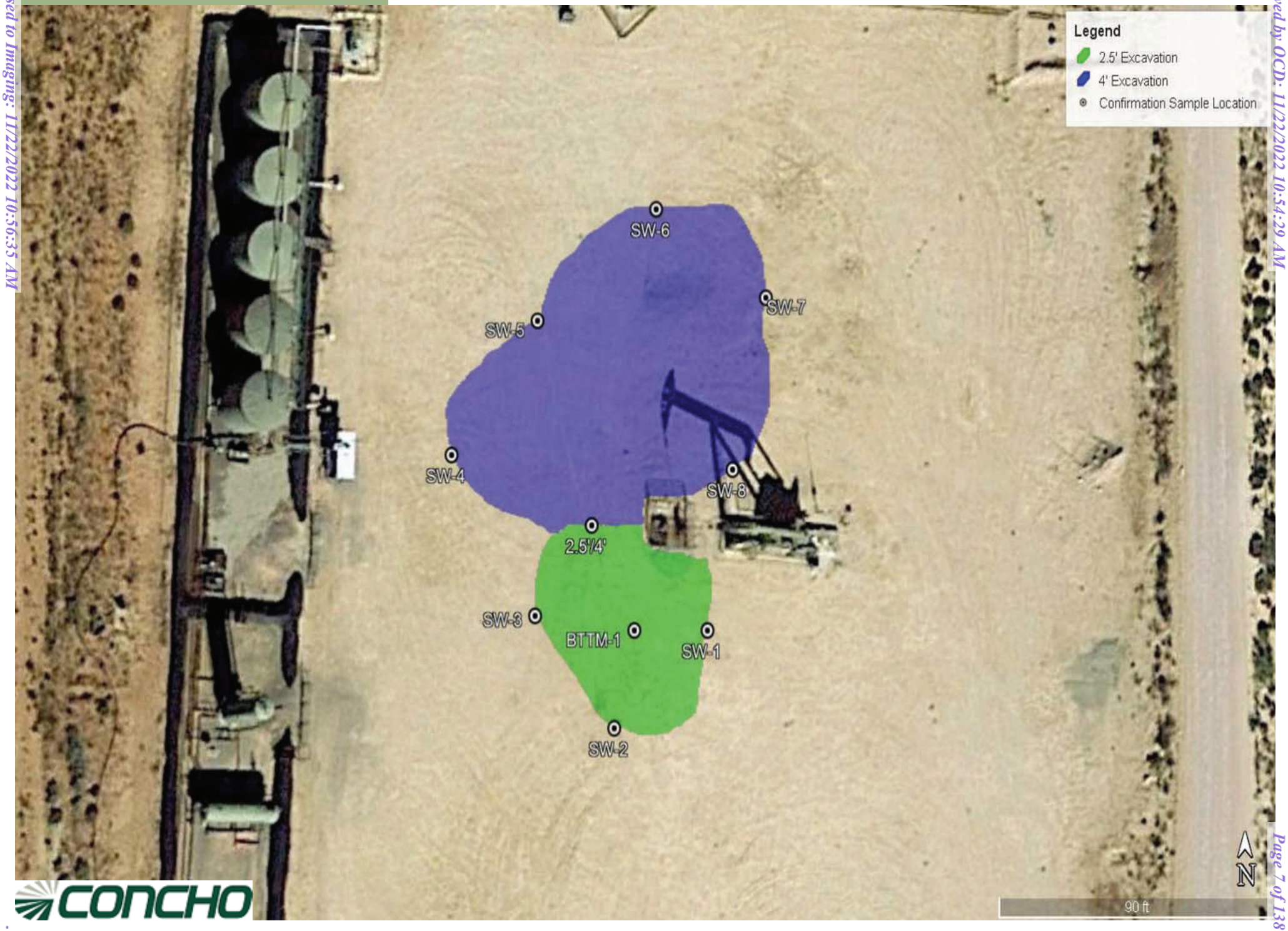
Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

Enclosed:

Appendix I: Site Diagram
Appendix II: Groundwater Data
Appendix III: Initial C-141 (Copy)
Appendix IV: Final C-141
Appendix V: Work Plan (Copy)
Appendix VI: Photographic Documentation
Appendix VII: Analytical Reports and Chain-of-Custody Forms

APPENDIX I

Crockett State #002H



CONCHO

APPENDIX II

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00601 POD1	CP	LE		2	1	28	21S	33E	633502	3591791*	1451	223		
CP 01357 POD1	CP	LE	4	3	1	27	21S	33E	634782	3591347	2665	1286	578	708
CP 01355 POD1	CP	LE	2	1	3	27	21S	33E	634773	3591061	2844	1192	582	610
CP 01349 POD1	CP	LE	2	3	1	27	21S	33E	635304	3591576	2978	1188	572	616

Average Depth to Water: **577 feet**

Minimum Depth: **572 feet**

Maximum Depth: **582 feet**

Record Count: 4

Basin/County Search:

County: Lea

UTMNAD83 Radius Search (in meters):

Easting (X): 632681 **Northing (Y):** 3592988 **Radius:** 3000

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

APPENDIX III

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating, LLC (OGRID #229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland, TX 79701	Telephone No. 432-683-7443
Facility Name: **Crockett State #002H**	Facility Type Wellhead

Surface Owner: State	Mineral Owner: State	API No. 30-025-41080

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	20	21S	33E	2,310	North	190	East	Lea

Latitude 32.4652519 **Longitude** -103.5866699 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 15 bbl. Produced Water	Volume Recovered: 0.5 bbl. Produced Water
Source of Release: Valve Failure	Date and Hour of Occurrence: May 22, 2018 3:00am	Date and Hour of Discovery: May 22, 2018 3:00am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 9:24 am, May 31, 2018

Describe Cause of Problem and Remedial Action Taken.*

The release was caused by the valve on the casing failing. The valve has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The release was on location. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to 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.

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

Signature: DeAnn Grant	OIL CONSERVATION DIVISION
Printed Name: DeAnn Grant	Approved by Environmental Specialist:
Title: HSE Administrative Assistant	Approval Date: 5/31/2018 Expiration Date:
E-mail Address: agrant@concho.com	Conditions of Approval: see attached directive Attached ☑
Date: May 23, 2018 Phone: 432-253-4513	

* Attach Additional Sheets If Necessary

1RP-5075 nOY1815134158 pOY1815135921

APPENDIX IV

District I
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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	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.4652519 Longitude -103.5866699

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Crockett State #002H	Site Type	Tank Battery
Date Release Discovered	5/22/2018	API# *(if applicable)*	30-025-41080

Unit Letter	Section	Township	Range	County
H	20	21S	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) 15	Volume Recovered (bbls) 0.5
	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

Valve failure on casing.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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: Sheldon L. Hitchcock Title: HSE Coordinator

Signature: Sheldon Hitchcock Date: 1/11/2019

email: slhitchcock@concho.com Telephone: 575-746-2010

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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: Sheldon L. Hitchcock Title: HSE Coordinator

Signature: Sheldon Hitchcock Date: 1/11/2019

email: slhitchcock@concho.com Telephone: 575-746-2010

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: Brittany Hall Date: 11/22/2022

Printed Name: Brittany Hall Title: Environmental Specialist

APPENDIX V

WORLD-WIDE ENVIRONMENTAL SPECIALISTS

BBC INTERNATIONAL INCORPORATED

PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBB
E-MAIL: cbrunson@bbcinternational.com

NMOCD approves of the delineation completed and proposed remediation for 1RP-5075 with one condition: sidewall confirmation samples (at 4 ft. and 2.5 ft. bgs excavation) and bottom confirmation sample (at 2.5 ft. bgs excavation) are required. Additionally, please provide GPS coordinates for all remediation confirmation sample locations. Please be advised, confirmation sample points must not be no more than 50 ft apart and to be tested for BTEX, TPH Extended, and chlorides (sidewalls). Please provide photos for documentation including properly placed liner in the remediation closure report.

DELINEATION WORKPLAN

COG – CROCKETT STATE #002H
(Leak Date: 5/22/18)

RP # 1RP-5075

APPROVED
By CHernandez at 3:50 pm, Jul 23, 2018

This delineation workplan and remediation proposal addresses the release associated with RP # 1RP-5075.

The following information includes:

1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
2. GPS information for sample points and sample methodology
3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
4. Laboratory analysis results summary table and original laboratory analysis reports
5. A copy of the initial C-141
6. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:

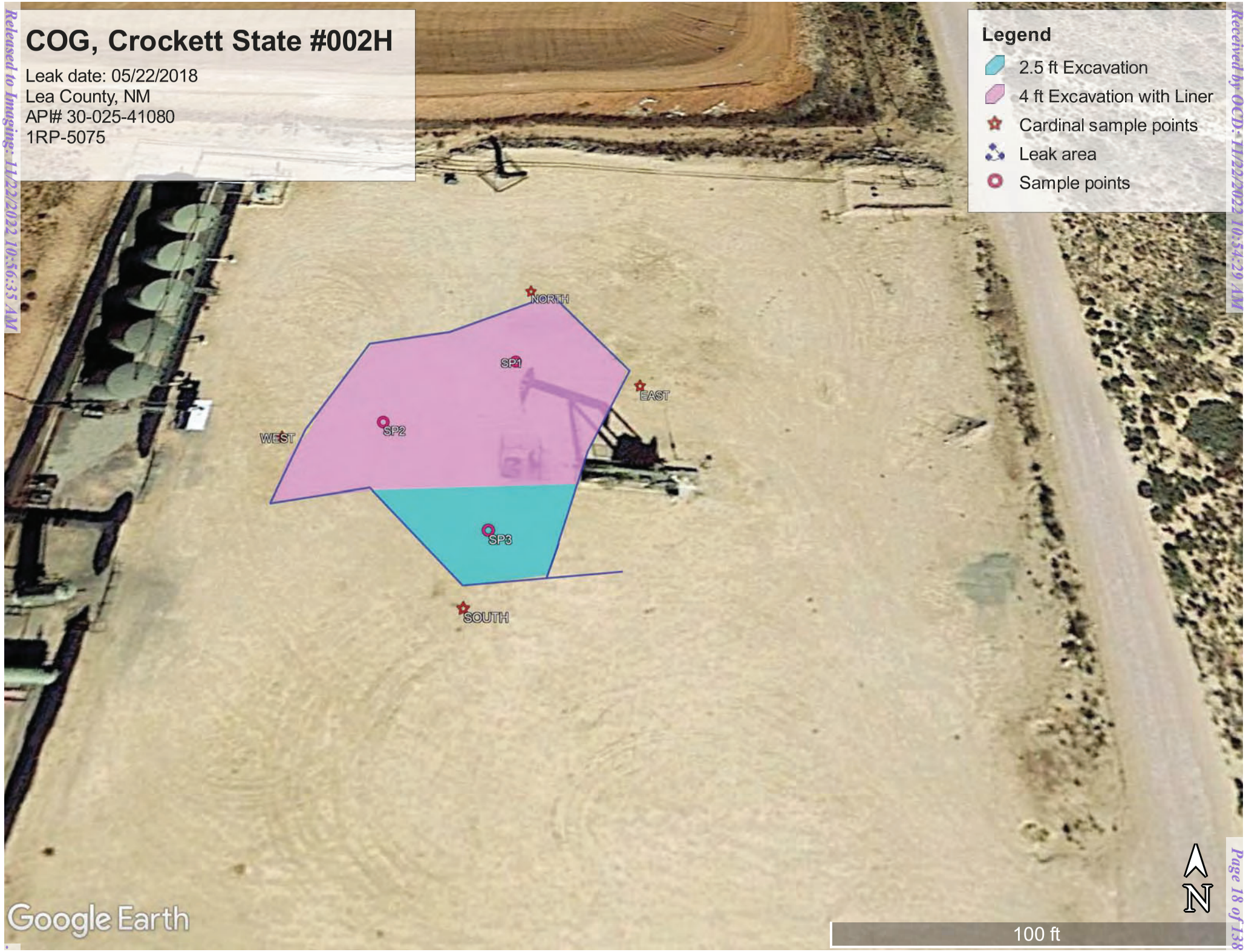
COG will excavate the spill area as depicted on the following site diagram. The leak area near SP1 and SP2 (pink shade on diagram) will be excavated to a depth of 4 feet with an impermeable liner placed in the excavation. The leak area near SP3 (blue shade on diagram) will be excavated to a depth of 2.5 feet.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

COG, Crockett State #002H

Leak date: 05/22/2018
Lea County, NM
API# 30-025-41080
1RP-5075



COG, Crockett State #002H

Sample points

SP1, N 32.46539 W-103.58669

SP2, N 32.46532 W-103.58682

SP3, N 32.46521 W-103.58670

NORTH, N 32.46548 W-103.58668

SOUTH, N 32.46513 W-103.58672

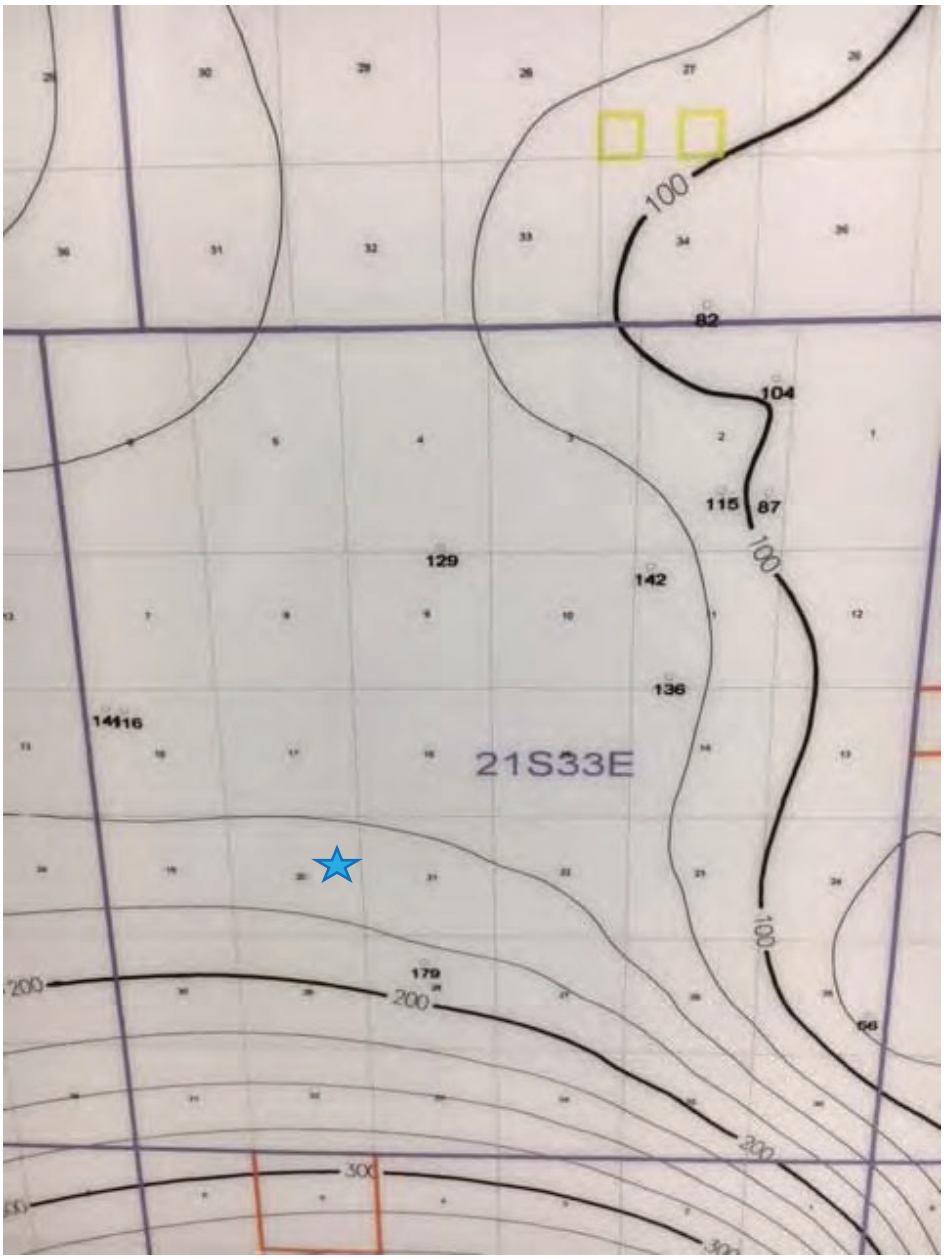
EAST, N 32.46537 W-103.58656

WEST, N 32.46530 W-103.58691

COG, Crockett State #002H

U/L H, Section 20, T21S, R33E

Groundwater: 150’-175’



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

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

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

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

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00601 POD1	CP	LE	2	1	28	21S	33E		633502	3591791*	1451	223		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 632681 **Northing (Y):** 3592988 **Radius:** 1700

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

Public Land Survey System (PLSS)

Q64: Q16: SE Q4: NE Sec: 20 Tws: 21S Rng: 33E

State Plane Coordinate System - NAD27

X: 0 ft Y: 0 ft Zone:

State Plane Coordinate System - NAD83

X: 0 ft Y: 0 ft Zone:

Degrees/Minutes/Seconds

Longitude (X): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "

Latitude (Y): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "

UTM - NAD27

Easting (X): 0 mtrs Northing (Y): 0 mtrs Zone:

SUBMIT

All Conversion Results are displayed as NAD 1983 UTM Zone 13

Easting (X): 632681.0 mtrs Northing (Y): 3592988.0 mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

Laboratory Analytical Results Summary
Crockett State #002H (5-22-18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 5'	SP1 @ 6'	SP1 @ 7'	SP1 @ 8'
Analyte	Method	Date	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.093	<0.050	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		0.168	<0.050	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		368	240	1880	2960	1630	1010	1070	160	80
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		26.7	<10.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		12.1	<10.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'	SP2 @ 6'	SP2 @ 7'	SP2 @ 8'
Analyte	Method	Date	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18	6/26/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		320	224	1700	2880	1550	1040	1070	192	96
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		35.1	<10.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		20.6	<10.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'
Analyte	Method	Date	6/26/18	6/26/18	6/29/18	6/29/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	n/a	n/a
Chloride	SM4500Cl-B		3720	2640	896	48
GRO	TPH 8015M		<10.0	<10.0	n/a	n/a
DRO	TPH 8015M		35.2	<10.0	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	n/a	n/a

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	6/29/18	6/29/18	6/29/18	6/29/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		64	96	64	80
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

CARDINAL Laboratories

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

July 09, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CROCKETT STATE #002H

Enclosed are the results of analyses for samples received by the laboratory on 07/05/18 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 1 @ SURFACE (H801823-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.093**	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	**0.168**	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	07/06/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	**26.7**	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	**12.1**	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *82.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *92.4 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 1 @ 1' (H801823-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	07/06/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *92.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

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Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 1 @ 2' (H801823-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1880**	16.0	07/06/2018	ND	432	108	400	0.00	

Sample ID: SP 1 @ 3' (H801823-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2960**	16.0	07/06/2018	ND	432	108	400	0.00	

Sample ID: SP 1 @ 4' (H801823-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1630**	16.0	07/06/2018	ND	432	108	400	0.00	

Sample ID: SP 1 @ 5' (H801823-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1010**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 1 @ 6' (H801823-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1070**	16.0	07/06/2018	ND	432	108	400	7.69	

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 1 @ 7' (H801823-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 1 @ 8' (H801823-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	07/06/2018	ND	432	108	400	7.69	

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 2 @ SURFACE (H801823-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	**35.1**	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	**20.6**	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *86.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *96.5 %* *37.6-147*

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Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 2 @ 1' (H801823-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *93.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

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Analytical Results For:

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Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 2 @ 2' (H801823-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1700**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 2 @ 3' (H801823-13)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2880**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 2 @ 4' (H801823-14)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1550**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 2 @ 5' (H801823-15)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1040**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 2 @ 6' (H801823-16)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1070**	16.0	07/06/2018	ND	432	108	400	7.69	

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CARDINAL Laboratories

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P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 2 @ 7' (H801823-17)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 2 @ 8' (H801823-18)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	07/06/2018	ND	432	108	400	7.69	

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Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 3 @ SURFACE (H801823-19)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3720**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	**35.2**	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *87.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *99.8 %* *37.6-147*

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Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/26/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 3 @ 1' (H801823-20)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2640**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *88.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *96.5 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

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Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/29/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SP 3 @ 2' (H801823-21)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**896**	16.0	07/06/2018	ND	432	108	400	7.69	

Sample ID: SP 3 @ 3' (H801823-22)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	07/06/2018	ND	432	108	400	7.69	

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Celey D. Keene, Lab Director/Quality Manager

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BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/29/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: NORTH @ SURFACE (H801823-23)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *77.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.6 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/29/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: EAST @ SURFACE (H801823-24)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *87.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/29/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: WEST @ SURFACE (H801823-25)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/06/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *92.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	07/05/2018	Sampling Date:	06/29/2018
Reported:	07/09/2018	Sampling Type:	Soil
Project Name:	CROCKETT STATE #002H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SOUTH @ SURFACE (H801823-26)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/06/2018	ND	1.72	85.8	2.00	1.61	
Toluene*	<0.050	0.050	07/06/2018	ND	1.71	85.7	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/06/2018	ND	1.70	84.9	2.00	0.619	
Total Xylenes*	<0.150	0.150	07/06/2018	ND	5.31	88.4	6.00	0.420	
Total BTEX	<0.300	0.300	07/06/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	07/06/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/05/2018	ND	185	92.5	200	5.77	
DRO >C10-C28*	<10.0	10.0	07/05/2018	ND	210	105	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	07/05/2018	ND					

Surrogate: 1-Chlorooctane *83.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *91.9 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 3

Company Name:	BBC International, Inc.	BILL TO	
Project Manager:	Cliff Brunson	P.O. #:	
Address:	P.O. Box 805	Company:	COG
City:	Hobbs	State: NM Zip: 88241	Attn: Becky Haskell
Phone #:	575-397-6388	Fax #: 575-397-0397	Address:
Project #:		Project Owner: COG	City:
Project Name:	Crockett State #002H		State: Zip:
Project Location:	Lea County, NM		Phone #:
Sampler Name:	Jeff Ornelas		Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl	BTEX	TPH EXT								
H801823																									
1	SP1 @ SURFACE	G	1			✓					✓		6/26/18	9:33 AM	✓	✓	✓								
2	SP1 @ 1'	G	1			✓					✓		6/26/18	9:49 AM	✓	✓	✓								
3	SP1 @ 2'	G	1			✓					✓		6/26/18	10:15 AM	✓										
4	SP1 @ 3'	G	1			✓					✓		6/26/18	10:32 AM	✓										
5	SP1 @ 4'	G	1			✓					✓		6/26/18	10:52 AM	✓										
6	SP1 @ 5'	G	1			✓					✓		6/26/18	11:15 AM	✓										
7	SP1 @ 6'	G	1			✓					✓		6/26/18	11:33 AM	✓										
8	SP1 @ 7'	G	1			✓					✓		6/26/18	11:51 AM	✓										
9	SP1 @ 8'	G	1			✓					✓		6/26/18	12:12 PM	✓										
10	SP2 @ SURFACE	G	1			✓					✓		6/26/18	12:55 PM	✓	✓	✓								

Relinquished By: Jeff Ornelas	Date: 6/29/18 Time: 5:00pm	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:	
Relinquished By:	Date: 6/29/18 Time: 5:00PM	Received By: Tamara Oldaker	Fax Result: ☐ Yes ☐ No	Add'l Fax #:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	4.9°c Corrected 4.8°c	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) T.D. #15	REMARKS: 7/5/18 11:05 Has some head space.	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

2 of 3

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BBC International, Inc.	**BILL TO**	
Project Manager:	Cliff Brunson	**P.O. #:**	
Address:	P.O. Box 805	**Company:**	COG
City:	Hobbs **State:** NM **Zip:** 88241	**Attn:**	Becky Haskell
Phone #:	575-397-6388 **Fax #:** 575-397-0397	**Address:**	
Project #:	**Project Owner:** COG	**City:**	
Project Name:	Crockett State #002H	**State:** **Zip:**	
Project Location:	Lea County, NM	**Phone #:**	
Sampler Name:	Jeff Ornelas	**Fax #:**	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl	BTEX	TPH EXT
H801823																	
11	SP2 @ 1'	G	1			✓					✓		6/26/18	1:11 PM	✓	✓	✓
12	SP2 @ 2'	G	1			✓					✓		6/26/18	1:22 PM	✓		
13	SP2 @ 3'	G	1			✓					✓		6/26/18	1:33 PM	✓		
14	SP2 @ 4'	G	1			✓					✓		6/26/18	1:51 PM	✓		
15	SP2 @ 5'	G	1			✓					✓		6/26/18	2:15 PM	✓		
16	SP2 @ 6'	G	1			✓					✓		6/26/18	2:33 PM	✓		
17	SP2 @ 7'	G	1			✓					✓		6/26/18	2:44 PM	✓		
18	SP2 @ 8'	G	1			✓					✓		6/26/18	2:59 PM	✓		
19	SP3 @ SURFACE	G	1			✓					✓		6/26/18	3:15 PM	✓	✓	✓
20	SP3 @ 1'	G	1			✓					✓		6/26/18	3:30 PM	✓	✓	✓

Relinquished By: Jeff Ornelas	**Date:** 6/27/18 **Time:** 5:00pm	**Received By:**	
Relinquished By:	**Date:** 6/27/18 **Time:** 5:00pm	**Received By:** Tamara Oldaker	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	4.9° Corrected 4.8°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO. #75

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS:

7/5/18 1:05

Has some head space

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

3 of 3

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	BBC International, Inc.	BILL TO	ANALYSIS REQUEST
Project Manager:	Cliff Brunson	P.O. #:	
Address:	P.O. Box 805	Company:	COG
City:	Hobbs	State: NM Zip: 88241	Attn: Becky Haskell
Phone #:	575-397-6388	Fax #: 575-397-0397	Address:
Project #:		Project Owner: COG	City:
Project Name:	Crockett State #002H		State: Zip:
Project Location:	Lea County, NM		Phone #:
Sampler Name:	Jeff Ornelas		Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl	BTEX	TPH EXT
H801823																	
21	SP3 @ 2'	G	1			✓					✓		6/29/18	9:45 AM	✓		
22	SP3 @ 3'	G	1			✓					✓		6/29/18	10:33 AM	✓		
23	NORTH @ SURFACE	G	1			✓					✓		6/29/18	11:00 AM	✓	✓	✓
24	EAST @ SURFACE	G	1			✓					✓		6/29/18	11:22 AM	✓	✓	✓
25	WEST @ SURFACE	G	1			✓					✓		6/29/18	11:40 AM	✓	✓	✓
26	SOUTH @ SURFACE	G	1			✓					✓		6/29/18	12:30 PM	✓	✓	✓

KMP 7/2/18

Relinquished By: Jeff Ornelas	Date: 6/29/18 Time: 5:00 pm	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
			Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: 7-5-18 Time: 11:05	Received By: Tamara Oldaker	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	4.9° Corrected 4.8°	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials) TO-HS

Has some head space

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating, LLC (OGRID #229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland, TX 79701	Telephone No. 432-683-7443
Facility Name: **Crockett State #002H**	Facility Type Wellhead

Surface Owner: State	Mineral Owner: State	API No. 30-025-41080

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	20	21S	33E	2,310	North	190	East	Lea

Latitude 32.4652519 **Longitude** -103.5866699 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 15 bbl. Produced Water	Volume Recovered: 0.5 bbl. Produced Water
Source of Release: Valve Failure	Date and Hour of Occurrence: May 22, 2018 3:00am	Date and Hour of Discovery: May 22, 2018 3:00am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 9:24 am, May 31, 2018

Describe Cause of Problem and Remedial Action Taken.*

The release was caused by the valve on the casing failing. The valve has been replaced.

Describe Area Affected and Cleanup Action Taken.*

The release was on location. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to 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.

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

Signature: DeAnn Grant	OIL CONSERVATION DIVISION
Printed Name: DeAnn Grant	Approved by Environmental Specialist:
Title: HSE Administrative Assistant	Approval Date: 5/31/2018 Expiration Date:
E-mail Address: agrant@concho.com	Conditions of Approval: see attached directive Attached ☑
Date: May 23, 2018 Phone: 432-253-4513	

* Attach Additional Sheets If Necessary

1RP-5075 nOY1815134158 pOY1815135921

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _5/24/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5075__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _6/30/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

APPENDIX VI


210
240
300
330
NW
272°W (T)
32.464878°, -103.586273° ±16.4ft
3789ft
CONCHO
COG Operating LLC
CROCKETT STATE #2H
UNIT H. SEC. 20-T21S-R33E
2310' FNL & 190' FEL
LEA COUNTY. NEW MEXICO
API #30-025-41080
06 Sep 2018, 07:53


NE
E
30
60
90
120
78°E (T)
32.465237°, -103.586830° ±16.4ft
3735ft
06 Sep 2018, 07:55


W
NW
N
40
270
300
330
0
311°NW (T)
32.465244°, -103.586823° ±16.4ft
3735ft
06 Sep 2018, 07:55

APPENDIX VII

Certificate of Analysis Summary 598366

COG Operating LLC, Artesia, NM

Project Name: Crockett St. 2H

Project Id:
Contact: Sheldon Hitchcock
Project Location: Lea Co.NM

Date Received in Lab: Fri Sep-07-18 01:00 pm
Report Date: 10-SEP-18
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	598366-001		598366-002		598366-003		598366-004			
		Field Id:	Bottom-1 2.5'		SW-1		SW-2		SW-3			
		Depth:	2.5- ft									
		Matrix:	SOIL		SOIL		SOIL		SOIL			
		Sampled:	Sep-06-18 08:00		Sep-06-18 08:05		Sep-06-18 08:10		Sep-06-18 08:15			
BTEX by EPA 8021B		Extracted:	Sep-09-18 10:00		Sep-09-18 10:00		Sep-09-18 10:00		Sep-09-18 10:00			
		Analyzed:	Sep-10-18 11:04		Sep-10-18 03:12		Sep-10-18 03:33		Sep-10-18 03:53			
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene			<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202		
Toluene			<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202		
Ethylbenzene			<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202		
m,p-Xylenes			<0.00401	0.00401	<0.00399	0.00399	<0.00398	0.00398	<0.00403	0.00403		
o-Xylene			<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202		
Total Xylenes			<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202		
Total BTEX			<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202		
Chloride by EPA 300		Extracted:	Sep-07-18 17:15		Sep-07-18 17:15		Sep-07-18 17:15		Sep-07-18 17:15			
		Analyzed:	Sep-08-18 00:42		Sep-08-18 01:01		Sep-08-18 01:07		Sep-08-18 01:13			
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride			85.7	4.98	41.0	4.96	<4.98	4.98	159	5.00		
TPH By SW8015 Mod		Extracted:	Sep-07-18 17:00		Sep-07-18 17:00		Sep-07-18 17:00		Sep-07-18 17:00			
		Analyzed:	Sep-08-18 14:03		Sep-08-18 14:59		Sep-08-18 15:17		Sep-08-18 15:36			
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons			<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0		
Diesel Range Organics			<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0		
Motor Oil Range Hydrocarbons (MRO)			<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0		
Total TPH			<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0		

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 598366

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Crockett St. 2H

10-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), 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 (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
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)

10-SEP-18

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **598366**
Crockett St. 2H
Project Address: Lea Co.NM

Sheldon Hitchcock:

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) 598366. 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. 598366 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

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

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

Sample Cross Reference 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom-1 2.5'	S	09-06-18 08:00	2.5 ft	598366-001
SW-1	S	09-06-18 08:05	ft	598366-002
SW-2	S	09-06-18 08:10	ft	598366-003
SW-3	S	09-06-18 08:15	ft	598366-004

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Crockett St. 2H

Project ID:
Work Order Number(s): *598366*

Report Date: *10-SEP-18*
Date Received: *09/07/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3062575 BTEX by EPA 8021B
Ethylbenzene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 598366-001, -002, -003, -004
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 598366-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 598366-001, -002, -003, -004.
The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**Bottom-1 2.5'**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-001	Date Collected:	09.06.18 08.00	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.07.18 17.15	Basis:	Wet Weight
Seq Number:	3062573				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**85.7**	4.98	mg/kg	09.08.18 00.42		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.07.18 17.00	Basis:	Wet Weight
Seq Number:	3062569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.08.18 14.03	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.08.18 14.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.08.18 14.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.08.18 14.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.08.18 14.03	
o-Terphenyl	84-15-1	102	%	70-135	09.08.18 14.03	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**Bottom-1 2.5'**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-001	Date Collected:	09.06.18 08.00	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.10.18 11.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.10.18 11.04	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.10.18 11.04	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-002	Date Collected:	09.06.18 08.05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.07.18 17.15	Basis:	Wet Weight
Seq Number:	3062573				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.0**	4.96	mg/kg	09.08.18 01.01		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.07.18 17.00	Basis:	Wet Weight
Seq Number:	3062569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	09.08.18 14.59	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	09.08.18 14.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.08.18 14.59	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.08.18 14.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.08.18 14.59	
o-Terphenyl	84-15-1	98	%	70-135	09.08.18 14.59	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-002	Date Collected:	09.06.18 08.05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.10.18 03.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.10.18 03.12	
4-Bromofluorobenzene	460-00-4	99	%	70-130	09.10.18 03.12	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id: **SW-2** Matrix: Soil Date Received:09.07.18 13.00

Lab Sample Id: 598366-003 Date Collected: 09.06.18 08.10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 09.07.18 17.15 Basis: Wet Weight

Seq Number: 3062573

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	09.08.18 01.07	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 09.07.18 17.00 Basis: Wet Weight

Seq Number: 3062569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	09.08.18 15.17	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	09.08.18 15.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.08.18 15.17	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.08.18 15.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.08.18 15.17	
o-Terphenyl	84-15-1	105	%	70-135	09.08.18 15.17	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-2**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-003	Date Collected:	09.06.18 08.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.10.18 03.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.10.18 03.33	
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.10.18 03.33	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-3**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-004	Date Collected:	09.06.18 08.15		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.07.18 17.15	Basis:	Wet Weight
Seq Number:	3062573				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**159**	5.00	mg/kg	09.08.18 01.13		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.07.18 17.00	Basis:	Wet Weight
Seq Number:	3062569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.08.18 15.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.08.18 15.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.08.18 15.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.08.18 15.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.08.18 15.36	
o-Terphenyl	84-15-1	101	%	70-135	09.08.18 15.36	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-3**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-004	Date Collected:	09.06.18 08.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.10.18 03.53	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	77	%	70-130	09.10.18 03.53	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.10.18 03.53	

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 598366

COG Operating LLC

Crockett St. 2H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3062573 — Matrix: Solid — Date Prep: 09.07.18
MB Sample Id: 7661904-1-BLK — LCS Sample Id: 7661904-1-BKS — LCSD Sample Id: 7661904-1-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	251	100	250	100	90-110	0	20	mg/kg	09.07.18 23:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3062573 — Matrix: Soil — Date Prep: 09.07.18
Parent Sample Id: 598207-004 — MS Sample Id: 598207-004 S — MSD Sample Id: 598207-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	699	248	916	88	915	87	90-110	0	20	mg/kg	09.08.18 01:38	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3062573 — Matrix: Soil — Date Prep: 09.07.18
Parent Sample Id: 598333-010 — MS Sample Id: 598333-010 S — MSD Sample Id: 598333-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	71.0	250	324	101	322	100	90-110	1	20	mg/kg	09.08.18 00:11	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3062569 — Matrix: Solid — Date Prep: 09.07.18
MB Sample Id: 7661909-1-BLK — LCS Sample Id: 7661909-1-BKS — LCSD Sample Id: 7661909-1-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	<8.00	1000	906	91	904	90	70-135	0	20	mg/kg	09.08.18 13:25	
Diesel Range Organics	<8.13	1000	981	98	969	97	70-135	1	20	mg/kg	09.08.18 13:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		116		119		70-135	%	09.08.18 13:25
o-Terphenyl	106		103		109		70-135	%	09.08.18 13:25

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 598366

COG Operating LLC

Crockett St. 2H

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3062569 — Matrix: Soil — Date Prep: 09.07.18
Parent Sample Id: 598366-001 — MS Sample Id: 598366-001 S — MSD Sample Id: 598366-001 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	8.90	1000	868	86	842	83	70-135	3	20	mg/kg	09.08.18 14:21	
Diesel Range Organics	9.36	1000	983	97	953	95	70-135	3	20	mg/kg	09.08.18 14:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		120		70-135	%	09.08.18 14:21
o-Terphenyl	121		119		70-135	%	09.08.18 14:21

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3062575 — Matrix: Solid — Date Prep: 09.09.18
MB Sample Id: 7661928-1-BLK — LCS Sample Id: 7661928-1-BKS — LCSD Sample Id: 7661928-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.101	101	0.0903	90	70-130	11	35	mg/kg	09.10.18 11:04	
Toluene	<0.00200	0.0998	0.0984	99	0.0908	91	70-130	8	35	mg/kg	09.10.18 11:04	
Ethylbenzene	<0.00200	0.0998	0.102	102	0.0937	94	70-130	8	35	mg/kg	09.10.18 11:04	
m,p-Xylenes	<0.00399	0.200	0.203	102	0.187	93	70-130	8	35	mg/kg	09.10.18 11:04	
o-Xylene	<0.00200	0.0998	0.102	102	0.0924	92	70-130	10	35	mg/kg	09.10.18 11:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		94		88		70-130	%	09.10.18 11:04
4-Bromofluorobenzene	94		98		92		70-130	%	09.10.18 11:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3062575 — Matrix: Soil — Date Prep: 09.09.18
Parent Sample Id: 598366-001 — MS Sample Id: 598366-001 S — MSD Sample Id: 598366-001 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	0.0698	70	0.0913	91	70-130	27	35	mg/kg	09.10.18 11:04	
Toluene	<0.00199	0.0996	0.0622	62	0.0886	89	70-130	35	35	mg/kg	09.10.18 11:04	X
Ethylbenzene	<0.00199	0.0996	0.0556	56	0.0896	90	70-130	47	35	mg/kg	09.10.18 11:04	XF
m,p-Xylenes	<0.00398	0.199	0.109	55	0.178	89	70-130	48	35	mg/kg	09.10.18 11:04	XF
o-Xylene	<0.00199	0.0996	0.0581	58	0.0875	88	70-130	40	35	mg/kg	09.10.18 11:04	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	09.10.18 11:04
4-Bromofluorobenzene	94		94		70-130	%	09.10.18 11:04

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

CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

XENCO LABORATORIES

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #

Xenco Job # 598360

Client / Reporting Information

Company Name / Branch: COG Artesia
Company Address:
Email: Shitchcock@concho.com
Phone No:
Project Contact: Sheldon Hitchcock
Samplers's Name: Sheldon Hitchcock

Project Information

Project Name/Number: Crockett St. 2H
Project Location: Lea Co. NM
Invoice To: Sheldon Hitchcock
PO Number:

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	None	TPH Extended 8015M	BTEX 8021B	Chlorides	Field Comments
1	Bttm-1 2.5'	2.5'	9/6/18	8:00	S	1								X	X	X	X	
2	SW-1	N/A	"	8:05	S	1								X	X	X	X	
3	SW-2	"	"	8:10	S	1								X	X	X	X	
4	SW-3	"	"	8:15	S	1								X	X	X	X	
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [X] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

TAT Starts Day received by Lab, if received by 5:00 pm

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		10:05 9/6/18	1	2	15:30 9/6/18	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By: 9.7.18 13:00
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: N; Cooler Temp.: 3.0; Thermo. Corr. Factor: R8 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 09/07/2018 01:00:00 PM

Work Order #: 598366

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Gomez Date: 09/07/2018

Shawnee Gomez

Checklist reviewed by: Jessica Kramer Date: 09/10/2018

Jessica Kramer

Certificate of Analysis Summary 599222

COG Operating LLC, Artesia, NM

Project Name: Crcokett St #2 H

Project Id:
Contact: Sheldon Hitchcock
Project Location: Lea Co. NM

Date Received in Lab: Sat Sep-15-18 09:00 am
Report Date: 18-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	599222-001		599222-002		599222-003		599222-004		599222-005		599222-006	
	Field Id:	SW-4		SW-5		SW-6		SW-7		SW-8		2'/4'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-12-18 13:00		Sep-12-18 13:05		Sep-12-18 13:10		Sep-12-18 13:15		Sep-12-18 13:20		Sep-12-18 13:25	
BTEX by EPA 8021B	***Extracted:***	Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00	
	Analyzed:	Sep-17-18 13:57		Sep-17-18 15:16		Sep-17-18 15:36		Sep-17-18 15:56		Sep-17-18 16:17		Sep-17-18 16:37	
	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	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00397	0.00397	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00	
	Analyzed:	Sep-17-18 16:19		Sep-17-18 16:24		Sep-17-18 16:41		Sep-17-18 16:47		Sep-17-18 16:53		Sep-17-18 16:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		345	4.98	170	4.97	1200	4.98	105	5.03	<4.95	4.95	1130	4.98
TPH By SW8015 Mod	***Extracted:***	Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00	
	Analyzed:	Sep-17-18 14:53		Sep-17-18 15:14		Sep-17-18 15:34		Sep-17-18 15:54		Sep-17-18 16:55		Sep-17-18 17:15	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 599222

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Crcokett St #2 H

18-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), 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 (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
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)

18-SEP-18

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **599222**
Crcokett St #2 H
Project Address: Lea Co. NM

Sheldon Hitchcock:

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) 599222. 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. 599222 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

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

Sample Cross Reference 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-4	S	09-12-18 13:00		599222-001
SW-5	S	09-12-18 13:05		599222-002
SW-6	S	09-12-18 13:10		599222-003
SW-7	S	09-12-18 13:15		599222-004
SW-8	S	09-12-18 13:20		599222-005
2'/4'	S	09-12-18 13:25		599222-006

CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Crcokett St #2 H

Project ID:
Work Order Number(s): *599222*

Report Date: *18-SEP-18*
Date Received: *09/15/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3063482 BTEX by EPA 8021B

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

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-4**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-001	Date Collected:	09.12.18 13.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**345**	4.98	mg/kg	09.17.18 16.19		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 14.53	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 14.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 14.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 14.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.18 14.53	
o-Terphenyl	84-15-1	91	%	70-135	09.17.18 14.53	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-4**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-001	Date Collected:	09.12.18 13.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.17.18 13.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	09.17.18 13.57	
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.17.18 13.57	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-5**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-002	Date Collected:	09.12.18 13.05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	4.97	mg/kg	09.17.18 16.24		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	09.17.18 15.14	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	09.17.18 15.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.17.18 15.14	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.17.18 15.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.18 15.14	
o-Terphenyl	84-15-1	90	%	70-135	09.17.18 15.14	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-5**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-002	Date Collected:	09.12.18 13.05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.18 15.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.17.18 15.16	
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.17.18 15.16	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-6**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-003	Date Collected:	09.12.18 13.10		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	4.98	mg/kg	09.17.18 16.41		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 15.34	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 15.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 15.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 15.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.17.18 15.34	
o-Terphenyl	84-15-1	88	%	70-135	09.17.18 15.34	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-6**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-003	Date Collected:	09.12.18 13.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.18 15.36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.17.18 15.36	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.17.18 15.36	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-7**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-004	Date Collected:	09.12.18 13.15		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	5.03	mg/kg	09.17.18 16.47		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 15.54	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 15.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 15.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 15.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.18 15.54	
o-Terphenyl	84-15-1	91	%	70-135	09.17.18 15.54	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-7**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-004	Date Collected:	09.12.18 13.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.17.18 15.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.17.18 15.56	
4-Bromofluorobenzene	460-00-4	111	%	70-130	09.17.18 15.56	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-8**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-005	Date Collected:	09.12.18 13.20		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	09.17.18 16.53	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 16.55	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 16.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 16.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 16.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	09.17.18 16.55	
o-Terphenyl	84-15-1	84	%	70-135	09.17.18 16.55	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-8**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-005	Date Collected:	09.12.18 13.20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.18 16.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	09.17.18 16.17	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.17.18 16.17	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**2'/4'**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-006	Date Collected:	09.12.18 13.25		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1130**	4.98	mg/kg	09.17.18 16.58		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 17.15	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 17.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 17.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 17.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.17.18 17.15	
o-Terphenyl	84-15-1	89	%	70-135	09.17.18 17.15	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**2'/4'**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-006	Date Collected:	09.12.18 13.25		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.17.18 16.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.17.18 16.37	
4-Bromofluorobenzene	460-00-4	112	%	70-130	09.17.18 16.37	

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 599222

COG Operating LLC

Crcokett St #2 H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063508 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662454-1-BLK — LCS Sample Id: 7662454-1-BKS — LCSD Sample Id: 7662454-1-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	249	100	250	100	90-110	0	20	mg/kg	09.17.18 15:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063508 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599220-003 — MS Sample Id: 599220-003 S — MSD Sample Id: 599220-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	115	251	360	98	364	99	90-110	1	20	mg/kg	09.17.18 17:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063508 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599221-001 — MS Sample Id: 599221-001 S — MSD Sample Id: 599221-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	215	251	460	98	461	98	90-110	0	20	mg/kg	09.17.18 15:56	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063509 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662483-1-BLK — LCS Sample Id: 7662483-1-BKS — LCSD Sample Id: 7662483-1-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	<8.00	1000	918	92	926	93	70-135	1	20	mg/kg	09.17.18 11:33	
Diesel Range Organics	<8.13	1000	933	93	942	94	70-135	1	20	mg/kg	09.17.18 11:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		123		126		70-135	%	09.17.18 11:33
o-Terphenyl	117		101		108		70-135	%	09.17.18 11:33

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 599222

COG Operating LLC

Crcokett St #2 H

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063509 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599220-001 — MS Sample Id: 599220-001 S — MSD Sample Id: 599220-001 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	999	913	91	920	91	70-135	1	20	mg/kg	09.17.18 12:33	
Diesel Range Organics	132	999	1050	92	1060	93	70-135	1	20	mg/kg	09.17.18 12:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		126		70-135	%	09.17.18 12:33
o-Terphenyl	108		103		70-135	%	09.17.18 12:33

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063482 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662448-1-BLK — LCS Sample Id: 7662448-1-BKS — LCSD Sample Id: 7662448-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0948	95	0.103	103	70-130	8	35	mg/kg	09.17.18 08:53	
Toluene	<0.00200	0.0998	0.0926	93	0.102	102	70-130	10	35	mg/kg	09.17.18 08:53	
Ethylbenzene	<0.00200	0.0998	0.0976	98	0.108	108	70-130	10	35	mg/kg	09.17.18 08:53	
m,p-Xylenes	<0.00399	0.200	0.192	96	0.215	108	70-130	11	35	mg/kg	09.17.18 08:53	
o-Xylene	<0.00200	0.0998	0.0919	92	0.104	104	70-130	12	35	mg/kg	09.17.18 08:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		88		97		70-130	%	09.17.18 08:53
4-Bromofluorobenzene	91		81		98		70-130	%	09.17.18 08:53

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063482 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 598936-009 — MS Sample Id: 598936-009 S — MSD Sample Id: 598936-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0832	82	0.0758	75	70-130	9	35	mg/kg	09.17.18 09:33	
Toluene	<0.00201	0.101	0.0809	80	0.0756	75	70-130	7	35	mg/kg	09.17.18 09:33	
Ethylbenzene	<0.00201	0.101	0.0833	82	0.0764	76	70-130	9	35	mg/kg	09.17.18 09:33	
m,p-Xylenes	<0.00402	0.201	0.163	81	0.149	74	70-130	9	35	mg/kg	09.17.18 09:33	
o-Xylene	<0.00201	0.101	0.0778	77	0.0712	70	70-130	9	35	mg/kg	09.17.18 09:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		94		70-130	%	09.17.18 09:33
4-Bromofluorobenzene	93		93		70-130	%	09.17.18 09:33

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

CHAIN OF CUSTODY

Revision 2016.1

XENCO LABORATORIES

Setting the Standard since 1990

Page ___ Of ___

Stafford, TX (281) 240-4200 | El Paso, TX (915) 585-3443 | Midland, TX (432) 704-5440 | Phoenix, AZ (480) 355-0900 | Service Center- Amarillo, TX (806)678-4514
Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote # | Xenco Job # 549792

Client / Reporting Information

Company Name / Branch: COG Artesia
Company Address:
Email: Slhitchcock@concho.com
Phone No:
Project Contact: Sheldon Hitchcock
Samplers's Name: Sheldon Hitchcock

Project Information

Project Name/Number: Crockett St #2H
Project Location: Lea Co. NM
Invoice To:
PO Number:

Analytical Information

TPH Extended | BTEX | Chlorides

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	ICE	TPH Extended	BTEX	Chlorides	Field Comments
1	SW-4		9/12/18	1:00	S	1								✓	✓	✓	✓	
2	SW-5			1:05	S	1								✓	✓	✓	✓	
3	SW-6			1:10	S	1								✓	✓	✓	✓	
4	SW-7			1:15	S	1								✓	✓	✓	✓	
5	SW-8			1:20	S	1								✓	✓	✓	✓	
6	2'/4'			1:25	S	1								✓	✓	✓	✓	
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [X] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Sheldon Hitchcock	9/12/18 16:33		2 Chuck Pelton	9/13/18 15:30	9/15/18 0900
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 0.2 / Thermo. Corr. Factor 1.0 0.0

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 09/15/2018 09:00:00 AM

Work Order #: 599222

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)?	.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: 09/17/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/17/2018

Jessica Kramer

Certificate of Analysis Summary 599222

COG Operating LLC, Artesia, NM

Project Name: Crcokett St #2 H

Project Id:
Contact: Sheldon Hitchcock
Project Location: Lea Co. NM

Date Received in Lab: Sat Sep-15-18 09:00 am
Report Date: 18-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	599222-001		599222-002		599222-003		599222-004		599222-005		599222-006	
	Field Id:	SW-4		SW-5		SW-6		SW-7		SW-8		2'/4'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-12-18 13:00		Sep-12-18 13:05		Sep-12-18 13:10		Sep-12-18 13:15		Sep-12-18 13:20		Sep-12-18 13:25	
BTEX by EPA 8021B	***Extracted:***	Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00		Sep-17-18 08:00	
	Analyzed:	Sep-17-18 13:57		Sep-17-18 15:16		Sep-17-18 15:36		Sep-17-18 15:56		Sep-17-18 16:17		Sep-17-18 16:37	
	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	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00397	0.00397	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00		Sep-17-18 15:00	
	Analyzed:	Sep-17-18 16:19		Sep-17-18 16:24		Sep-17-18 16:41		Sep-17-18 16:47		Sep-17-18 16:53		Sep-17-18 16:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		345	4.98	170	4.97	1200	4.98	105	5.03	<4.95	4.95	1130	4.98
TPH By SW8015 Mod	***Extracted:***	Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00		Sep-17-18 11:00	
	Analyzed:	Sep-17-18 14:53		Sep-17-18 15:14		Sep-17-18 15:34		Sep-17-18 15:54		Sep-17-18 16:55		Sep-17-18 17:15	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 599222

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Crcokett St #2 H

18-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), 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 (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
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)

18-SEP-18

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **599222**
Crcokett St #2 H
Project Address: Lea Co. NM

Sheldon Hitchcock:

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) 599222. 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. 599222 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
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Sample Cross Reference 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-4	S	09-12-18 13:00		599222-001
SW-5	S	09-12-18 13:05		599222-002
SW-6	S	09-12-18 13:10		599222-003
SW-7	S	09-12-18 13:15		599222-004
SW-8	S	09-12-18 13:20		599222-005
2'/4'	S	09-12-18 13:25		599222-006

CASE NARRATIVE

Client Name: COG Operating LLC
Project Name: Crcokett St #2 H

Project ID:
Work Order Number(s): *599222*

Report Date: *18-SEP-18*
Date Received: *09/15/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3063482 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-4**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-001	Date Collected:	09.12.18 13.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**345**	4.98	mg/kg	09.17.18 16.19		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 14.53	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 14.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 14.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 14.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.18 14.53	
o-Terphenyl	84-15-1	91	%	70-135	09.17.18 14.53	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-4**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-001	Date Collected:	09.12.18 13.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.17.18 13.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.18 13.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	09.17.18 13.57	
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.17.18 13.57	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-5**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-002	Date Collected:	09.12.18 13.05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	4.97	mg/kg	09.17.18 16.24		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	09.17.18 15.14	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	09.17.18 15.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.17.18 15.14	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.17.18 15.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.18 15.14	
o-Terphenyl	84-15-1	90	%	70-135	09.17.18 15.14	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-5**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-002	Date Collected:	09.12.18 13.05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.18 15.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.18 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.17.18 15.16	
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.17.18 15.16	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-6**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-003	Date Collected:	09.12.18 13.10		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	4.98	mg/kg	09.17.18 16.41		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 15.34	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 15.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 15.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 15.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.17.18 15.34	
o-Terphenyl	84-15-1	88	%	70-135	09.17.18 15.34	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-6**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-003	Date Collected:	09.12.18 13.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.17.18 15.36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.17.18 15.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.17.18 15.36	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.17.18 15.36	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-7**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-004	Date Collected:	09.12.18 13.15		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	5.03	mg/kg	09.17.18 16.47		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 15.54	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 15.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 15.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 15.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	09.17.18 15.54	
o-Terphenyl	84-15-1	91	%	70-135	09.17.18 15.54	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-7**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-004	Date Collected:	09.12.18 13.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.17.18 15.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.17.18 15.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.17.18 15.56	
4-Bromofluorobenzene	460-00-4	111	%	70-130	09.17.18 15.56	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-8**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-005	Date Collected:	09.12.18 13.20		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	09.17.18 16.53	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 16.55	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 16.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 16.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 16.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	09.17.18 16.55	
o-Terphenyl	84-15-1	84	%	70-135	09.17.18 16.55	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**SW-8**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-005	Date Collected:	09.12.18 13.20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.17.18 16.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.17.18 16.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	09.17.18 16.17	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.17.18 16.17	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**2'/4'**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-006	Date Collected:	09.12.18 13.25		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.17.18 15.00	Basis:	Wet Weight
Seq Number:	3063508				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1130**	4.98	mg/kg	09.17.18 16.58		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 11.00	Basis:	Wet Weight
Seq Number:	3063509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.17.18 17.15	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 17.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 17.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 17.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	09.17.18 17.15	
o-Terphenyl	84-15-1	89	%	70-135	09.17.18 17.15	

Certificate of Analytical Results 599222

COG Operating LLC, Artesia, NM

Crcokett St #2 H

Sample Id:	**2'/4'**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599222-006	Date Collected:	09.12.18 13.25		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.17.18 08.00	Basis:	Wet Weight
Seq Number:	3063482				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.17.18 16.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.17.18 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.17.18 16.37	
4-Bromofluorobenzene	460-00-4	112	%	70-130	09.17.18 16.37	

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 599222

COG Operating LLC

Crcokett St #2 H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063508 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662454-1-BLK — LCS Sample Id: 7662454-1-BKS — LCSD Sample Id: 7662454-1-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	249	100	250	100	90-110	0	20	mg/kg	09.17.18 15:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063508 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599220-003 — MS Sample Id: 599220-003 S — MSD Sample Id: 599220-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	115	251	360	98	364	99	90-110	1	20	mg/kg	09.17.18 17:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063508 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599221-001 — MS Sample Id: 599221-001 S — MSD Sample Id: 599221-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	215	251	460	98	461	98	90-110	0	20	mg/kg	09.17.18 15:56	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063509 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662483-1-BLK — LCS Sample Id: 7662483-1-BKS — LCSD Sample Id: 7662483-1-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	<8.00	1000	918	92	926	93	70-135	1	20	mg/kg	09.17.18 11:33	
Diesel Range Organics	<8.13	1000	933	93	942	94	70-135	1	20	mg/kg	09.17.18 11:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		123		126		70-135	%	09.17.18 11:33
o-Terphenyl	117		101		108		70-135	%	09.17.18 11:33

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

Final 1.000

QC Summary 599222

COG Operating LLC

Crcokett St #2 H

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063509 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599220-001 — MS Sample Id: 599220-001 S — MSD Sample Id: 599220-001 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	999	913	91	920	91	70-135	1	20	mg/kg	09.17.18 12:33	
Diesel Range Organics	132	999	1050	92	1060	93	70-135	1	20	mg/kg	09.17.18 12:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		126		70-135	%	09.17.18 12:33
o-Terphenyl	108		103		70-135	%	09.17.18 12:33

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063482 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662448-1-BLK — LCS Sample Id: 7662448-1-BKS — LCSD Sample Id: 7662448-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0948	95	0.103	103	70-130	8	35	mg/kg	09.17.18 08:53	
Toluene	<0.00200	0.0998	0.0926	93	0.102	102	70-130	10	35	mg/kg	09.17.18 08:53	
Ethylbenzene	<0.00200	0.0998	0.0976	98	0.108	108	70-130	10	35	mg/kg	09.17.18 08:53	
m,p-Xylenes	<0.00399	0.200	0.192	96	0.215	108	70-130	11	35	mg/kg	09.17.18 08:53	
o-Xylene	<0.00200	0.0998	0.0919	92	0.104	104	70-130	12	35	mg/kg	09.17.18 08:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		88		97		70-130	%	09.17.18 08:53
4-Bromofluorobenzene	91		81		98		70-130	%	09.17.18 08:53

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063482 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 598936-009 — MS Sample Id: 598936-009 S — MSD Sample Id: 598936-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0832	82	0.0758	75	70-130	9	35	mg/kg	09.17.18 09:33	
Toluene	<0.00201	0.101	0.0809	80	0.0756	75	70-130	7	35	mg/kg	09.17.18 09:33	
Ethylbenzene	<0.00201	0.101	0.0833	82	0.0764	76	70-130	9	35	mg/kg	09.17.18 09:33	
m,p-Xylenes	<0.00402	0.201	0.163	81	0.149	74	70-130	9	35	mg/kg	09.17.18 09:33	
o-Xylene	<0.00201	0.101	0.0778	77	0.0712	70	70-130	9	35	mg/kg	09.17.18 09:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		94		70-130	%	09.17.18 09:33
4-Bromofluorobenzene	93		93		70-130	%	09.17.18 09:33

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

XENCO LABORATORIES
Setting the Standard since 1990

CHAIN OF CUSTODY

Page __ Of __

Revision 2016.1

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Xenco Quote #:
Xenco Job #: 599222

Client / Reporting Information
Company Name / Branch: COG Artesia
Company Address:
Email: shitchcock@concho.com
Phone No:
Project Contact: Sheldon Hitchcock
Samplers's Name: Sheldon Hitchcock

Project Information
Project Name/Number: Crockett St #2H
Project Location: Lea Co. NM
Invoice To:
PO Number:

Matrix Codes
W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE / ICE	TPH Extended	BTEX	Chlorides	Field Comments
1	SW-4		9/12/18	1:00	S	1								/	/	/	/	
2	SW-5			1:05	S	1								/	/	/	/	
3	SW-6			1:10	S	1								/	/	/	/	
4	SW-7			1:15	S	1								/	/	/	/	
5	SW-8			1:20	S	1								/	/	/	/	
6	2'/4'			1:25	S	1								/	/	/	/	
7																		
8																		
9																		
10																		

Turnaround Time (Business days)
- [x] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information
- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1 Relinquished by Sampler: Sheldon [signature]	9/12 16:23	1 [signature]	2 [signature]	9/13/18 15:30	2 [signature] 9/15/18 0900
3 Relinquished by:	Date Time:	3 Received By:	4 Relinquished By:	Date Time:	4 Received By:
5 Relinquished by:	Date Time:	5 Received By:	Custody Seal #	Preserved where applicable / On Ice	Cooler Temp. 0.2 / Thermo. Corr. Factor R8 0.0

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 09/15/2018 09:00:00 AM

Work Order #: 599222

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)?	.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: 09/17/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/17/2018

Jessica Kramer

Certificate of Analysis Summary 598366

COG Operating LLC, Artesia, NM

Project Name: Crockett St. 2H

Project Id:
Contact: Sheldon Hitchcock
Project Location: Lea Co.NM

Date Received in Lab: Fri Sep-07-18 01:00 pm
Report Date: 10-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	598366-001		598366-002		598366-003		598366-004					
	Field Id:	Bottom-1 2.5'		SW-1		SW-2		SW-3					
	Depth:	2.5- ft											
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Sep-06-18 08:00		Sep-06-18 08:05		Sep-06-18 08:10		Sep-06-18 08:15					
BTEX by EPA 8021B	***Extracted:***	Sep-09-18 10:00		Sep-09-18 10:00		Sep-09-18 10:00		Sep-09-18 10:00					
	Analyzed:	Sep-10-18 11:04		Sep-10-18 03:12		Sep-10-18 03:33		Sep-10-18 03:53					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202				
m,p-Xylenes		<0.00401	0.00401	<0.00399	0.00399	<0.00398	0.00398	<0.00403	0.00403				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	Sep-07-18 17:15		Sep-07-18 17:15		Sep-07-18 17:15		Sep-07-18 17:15					
	Analyzed:	Sep-08-18 00:42		Sep-08-18 01:01		Sep-08-18 01:07		Sep-08-18 01:13					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		85.7	4.98	41.0	4.96	<4.98	4.98	159	5.00				
TPH By SW8015 Mod	***Extracted:***	Sep-07-18 17:00		Sep-07-18 17:00		Sep-07-18 17:00		Sep-07-18 17:00					
	Analyzed:	Sep-08-18 14:03		Sep-08-18 14:59		Sep-08-18 15:17		Sep-08-18 15:36					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0				
Diesel Range Organics		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0				
Total TPH		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 598366

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Crockett St. 2H

10-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), 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 (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
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)

10-SEP-18

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **598366**
Crockett St. 2H
Project Address: Lea Co.NM

Sheldon Hitchcock:

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) 598366. 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. 598366 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom-1 2.5'	S	09-06-18 08:00	2.5 ft	598366-001
SW-1	S	09-06-18 08:05	ft	598366-002
SW-2	S	09-06-18 08:10	ft	598366-003
SW-3	S	09-06-18 08:15	ft	598366-004

CASE NARRATIVE

Client Name: COG Operating LLC
Project Name: Crockett St. 2H

Project ID:
Work Order Number(s): *598366*

Report Date: *10-SEP-18*
Date Received: *09/07/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3062575 BTEX by EPA 8021B
Ethylbenzene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 598366-001, -002, -003, -004
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 598366-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 598366-001, -002, -003, -004.
The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**Bottom-1 2.5'**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-001	Date Collected:	09.06.18 08.00	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.07.18 17.15	Basis:	Wet Weight
Seq Number:	3062573				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**85.7**	4.98	mg/kg	09.08.18 00.42		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.07.18 17.00	Basis:	Wet Weight
Seq Number:	3062569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.08.18 14.03	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.08.18 14.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.08.18 14.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.08.18 14.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.08.18 14.03	
o-Terphenyl	84-15-1	102	%	70-135	09.08.18 14.03	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**Bottom-1 2.5'**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-001	Date Collected:	09.06.18 08.00	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.10.18 11.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.10.18 11.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.10.18 11.04	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.10.18 11.04	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-002	Date Collected:	09.06.18 08.05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.07.18 17.15	Basis:	Wet Weight
Seq Number:	3062573				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.0**	4.96	mg/kg	09.08.18 01.01		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.07.18 17.00	Basis:	Wet Weight
Seq Number:	3062569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	09.08.18 14.59	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	09.08.18 14.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.08.18 14.59	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.08.18 14.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.08.18 14.59	
o-Terphenyl	84-15-1	98	%	70-135	09.08.18 14.59	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-002	Date Collected:	09.06.18 08.05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.10.18 03.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.10.18 03.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.10.18 03.12	
4-Bromofluorobenzene	460-00-4	99	%	70-130	09.10.18 03.12	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id: **SW-2** Matrix: Soil Date Received:09.07.18 13.00

Lab Sample Id: 598366-003 Date Collected: 09.06.18 08.10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 09.07.18 17.15 Basis: Wet Weight

Seq Number: 3062573

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	09.08.18 01.07	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 09.07.18 17.00 Basis: Wet Weight

Seq Number: 3062569

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	09.08.18 15.17	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	09.08.18 15.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.08.18 15.17	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.08.18 15.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.08.18 15.17	
o-Terphenyl	84-15-1	105	%	70-135	09.08.18 15.17	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-2**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-003	Date Collected:	09.06.18 08.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.10.18 03.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.10.18 03.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.10.18 03.33	
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.10.18 03.33	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-3**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-004	Date Collected:	09.06.18 08.15		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.07.18 17.15	Basis:	Wet Weight
Seq Number:	3062573				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**159**	5.00	mg/kg	09.08.18 01.13		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.07.18 17.00	Basis:	Wet Weight
Seq Number:	3062569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	09.08.18 15.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	09.08.18 15.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.08.18 15.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.08.18 15.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.08.18 15.36	
o-Terphenyl	84-15-1	101	%	70-135	09.08.18 15.36	

Certificate of Analytical Results 598366

COG Operating LLC, Artesia, NM

Crockett St. 2H

Sample Id:	**SW-3**	Matrix:	Soil	Date Received:	09.07.18 13.00
Lab Sample Id:	598366-004	Date Collected:	09.06.18 08.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.09.18 10.00	Basis:	Wet Weight
Seq Number:	3062575				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.10.18 03.53	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.10.18 03.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	77	%	70-130	09.10.18 03.53	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.10.18 03.53	

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 598366

COG Operating LLC

Crockett St. 2H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3062573 — Matrix: Solid — Date Prep: 09.07.18
MB Sample Id: 7661904-1-BLK — LCS Sample Id: 7661904-1-BKS — LCSD Sample Id: 7661904-1-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	251	100	250	100	90-110	0	20	mg/kg	09.07.18 23:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3062573 — Matrix: Soil — Date Prep: 09.07.18
Parent Sample Id: 598207-004 — MS Sample Id: 598207-004 S — MSD Sample Id: 598207-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	699	248	916	88	915	87	90-110	0	20	mg/kg	09.08.18 01:38	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3062573 — Matrix: Soil — Date Prep: 09.07.18
Parent Sample Id: 598333-010 — MS Sample Id: 598333-010 S — MSD Sample Id: 598333-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	71.0	250	324	101	322	100	90-110	1	20	mg/kg	09.08.18 00:11	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3062569 — Matrix: Solid — Date Prep: 09.07.18
MB Sample Id: 7661909-1-BLK — LCS Sample Id: 7661909-1-BKS — LCSD Sample Id: 7661909-1-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	<8.00	1000	906	91	904	90	70-135	0	20	mg/kg	09.08.18 13:25	
Diesel Range Organics	<8.13	1000	981	98	969	97	70-135	1	20	mg/kg	09.08.18 13:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		116		119		70-135	%	09.08.18 13:25
o-Terphenyl	106		103		109		70-135	%	09.08.18 13:25

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

Final 1.000

QC Summary 598366

COG Operating LLC

Crockett St. 2H

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3062569 — Matrix: Soil — Date Prep: 09.07.18
Parent Sample Id: 598366-001 — MS Sample Id: 598366-001 S — MSD Sample Id: 598366-001 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	8.90	1000	868	86	842	83	70-135	3	20	mg/kg	09.08.18 14:21	
Diesel Range Organics	9.36	1000	983	97	953	95	70-135	3	20	mg/kg	09.08.18 14:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		120		70-135	%	09.08.18 14:21
o-Terphenyl	121		119		70-135	%	09.08.18 14:21

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3062575 — Matrix: Solid — Date Prep: 09.09.18
MB Sample Id: 7661928-1-BLK — LCS Sample Id: 7661928-1-BKS — LCSD Sample Id: 7661928-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.101	101	0.0903	90	70-130	11	35	mg/kg	09.10.18 11:04	
Toluene	<0.00200	0.0998	0.0984	99	0.0908	91	70-130	8	35	mg/kg	09.10.18 11:04	
Ethylbenzene	<0.00200	0.0998	0.102	102	0.0937	94	70-130	8	35	mg/kg	09.10.18 11:04	
m,p-Xylenes	<0.00399	0.200	0.203	102	0.187	93	70-130	8	35	mg/kg	09.10.18 11:04	
o-Xylene	<0.00200	0.0998	0.102	102	0.0924	92	70-130	10	35	mg/kg	09.10.18 11:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		94		88		70-130	%	09.10.18 11:04
4-Bromofluorobenzene	94		98		92		70-130	%	09.10.18 11:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3062575 — Matrix: Soil — Date Prep: 09.09.18
Parent Sample Id: 598366-001 — MS Sample Id: 598366-001 S — MSD Sample Id: 598366-001 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	0.0698	70	0.0913	91	70-130	27	35	mg/kg	09.10.18 11:04	
Toluene	<0.00199	0.0996	0.0622	62	0.0886	89	70-130	35	35	mg/kg	09.10.18 11:04	X
Ethylbenzene	<0.00199	0.0996	0.0556	56	0.0896	90	70-130	47	35	mg/kg	09.10.18 11:04	XF
m,p-Xylenes	<0.00398	0.199	0.109	55	0.178	89	70-130	48	35	mg/kg	09.10.18 11:04	XF
o-Xylene	<0.00199	0.0996	0.0581	58	0.0875	88	70-130	40	35	mg/kg	09.10.18 11:04	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	09.10.18 11:04
4-Bromofluorobenzene	94		94		70-130	%	09.10.18 11:04

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

CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

XENCO LABORATORIES

Setting the Standard since 1990

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #

Xenco Job # 598360

Client / Reporting Information

Company Name / Branch: COG Artesia
Company Address:
Email: Shitchcock@concho.com
Phone No:
Project Contact: Sheldon Hitchcock
Samplers's Name: Sheldon Hitchcock

Project Information

Project Name/Number: Crockett St. 2H
Project Location: Lea Co. NM
Invoice To: Sheldon Hitchcock
PO Number:

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	None	Analytical Information: TPH Extended 8015M	BTEX 8021B	Chlorides	Field Comments
1	B+tm-1 2.5'	2.5'	9/6/18	8:00	S	1								/	X	X	X	
2	SW-1	N/A	"	8:05	S	1								/	X	X	X	
3	SW-2	"	"	8:10	S	1								/	X	X	X	
4	SW-3	"	"	8:15	S	1								/	X	X	X	
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [X] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

TAT Starts Day received by Lab, if received by 5:00 pm

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		10:05 9/6/18	1	2	15:30 9/6/18	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By: 9.7.18 13:00
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: N; Cooler Temp.: 3.0; Thermo. Corr. Factor: R 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 09/07/2018 01:00:00 PM

Work Order #: 598366

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Gomez Date: 09/07/2018

Shawnee Gomez

Checklist reviewed by: Jessica Kramer Date: 09/10/2018

Jessica Kramer

CARDINAL Laboratories

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

September 25, 2018

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: CROCKETT 002H

Enclosed are the results of analyses for samples received by the laboratory on 09/24/18 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/24/2018	Sampling Date:	09/24/2018
Reported:	09/25/2018	Sampling Type:	Soil
Project Name:	CROCKETT 002H	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: 2 1/4' (H802692-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2018	ND	1.88	94.2	2.00	1.64	
Toluene*	<0.050	0.050	09/25/2018	ND	2.04	102	2.00	0.448	
Ethylbenzene*	<0.050	0.050	09/25/2018	ND	2.22	111	2.00	1.25	
Total Xylenes*	<0.150	0.150	09/25/2018	ND	6.42	107	6.00	1.16	
Total BTEX	<0.300	0.300	09/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/25/2018	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/24/2018	ND	196	97.9	200	1.20	
DRO >C10-C28*	<10.0	10.0	09/24/2018	ND	187	93.6	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	09/24/2018	ND					

Surrogate: 1-Chlorooctane *88.5 %* *41-142*

Surrogate: 1-Chlorooctadecane *84.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/24/2018	Sampling Date:	09/24/2018
Reported:	09/25/2018	Sampling Type:	Soil
Project Name:	CROCKETT 002H	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SW - 6 (H802692-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2018	ND	1.88	94.2	2.00	1.64	
Toluene*	<0.050	0.050	09/25/2018	ND	2.04	102	2.00	0.448	
Ethylbenzene*	<0.050	0.050	09/25/2018	ND	2.22	111	2.00	1.25	
Total Xylenes*	<0.150	0.150	09/25/2018	ND	6.42	107	6.00	1.16	
Total BTEX	<0.300	0.300	09/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.8-142*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	09/25/2018	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/24/2018	ND	196	97.9	200	1.20	
DRO >C10-C28*	<10.0	10.0	09/24/2018	ND	187	93.6	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	09/24/2018	ND					

Surrogate: 1-Chlorooctane *88.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *83.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476

Page 1 of 1

Company Name: COG	**BILL TO**
Project Manager: Dakota	P.O. #:
Address: dneelze@concho.com	Company: COG
City: State: Zip:	Attn: Dakota
Phone #: 432-215-2783 Fax #:	Address: Artesia
Project #: Project Owner: COG	City: NM
Project Name: Crockett 002 N / Rush!!	State: Zip:
Project Location: Crockett 002 N	Phone #:
Sampler Name:	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TCLP	8-Tex
H802692																	
1	2'/4'		1			✓					✓		9/24/18	930	✓	✓	✓
2	SW-6		1			✓					✓		9/24/18	935	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Christena Berry	Date: 9-24-18 Time: 14:45	Received By: Samara Oldaker	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Temp. 21.4°	Sample Condition Cool: ☐ Yes ☑ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) T.P.

Phone Result:	☐	No	Add'l Phone #:
Fax Result:	☐	No	Add'l Fax #:

REMARKS: Rush!

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

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

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

CONDITIONS

Action 160827

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 160827
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	11/22/2022