[Sheldon L. Hitchcock]
[HSE Coordinator]

March 14, 2019

Bradford Billings
Oil Conservation Division
1220 S. St Francis Dr. #3
Santa Fe, NM 87505

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

Re: Closure Letter
Glacier Federal Com #001H
API #: 30-015-43131
RP#: 2RP-4642
Unit Letter A, Section 24, Township 26S, Range 25E
Eddy County, NM

Mr. Billings/Ms. Weaver,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the Glacier Federal Com #001H. This release occurred on February 27, 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 Bureau of Land Management (BLM). A copy of the approved work plan is attached in Appendix IV.

BACKGROUND

The Glacier Federal Com #001H release is located in Unit Letter A, Section 24, Township 26 South, and Range 25 East in Eddy County, New Mexico. More specifically the latitude and longitude for this release are 32.0343338 North and -104.3425169 West.

On February 28, 2018, the one (1) inch steel plug on the filter pot failed resulting in the release of approximately three-hundred and thirty-four (334) barrels (bbls) of produced water. The vast majority of the fluid remained inside of the lined containment. A vacuum truck was utilized to recover three-hundred and thirty (330) bbls of produced water.

Remediation activities were conducted in accordance with the approved work plan. Confirmation soil samples were not required by NMOCD or BLM. A site diagram of the excavated area is presented in Appendix I.

REMEDIAL ACTIONS

- The impacted areas in the vicinity of sample locations T-1 was excavated to a depth of three (3) feet BGS.
- The impacted area in the vicinity of sample location T-2 was excavated to the depth of one (1) foot BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- The excavation was backfill with clean “like” material and contoured to match the surrounding terrain.

March 14, 2019

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the Glacier Federal Com #001H incident that occurred on February 27, 2018.

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

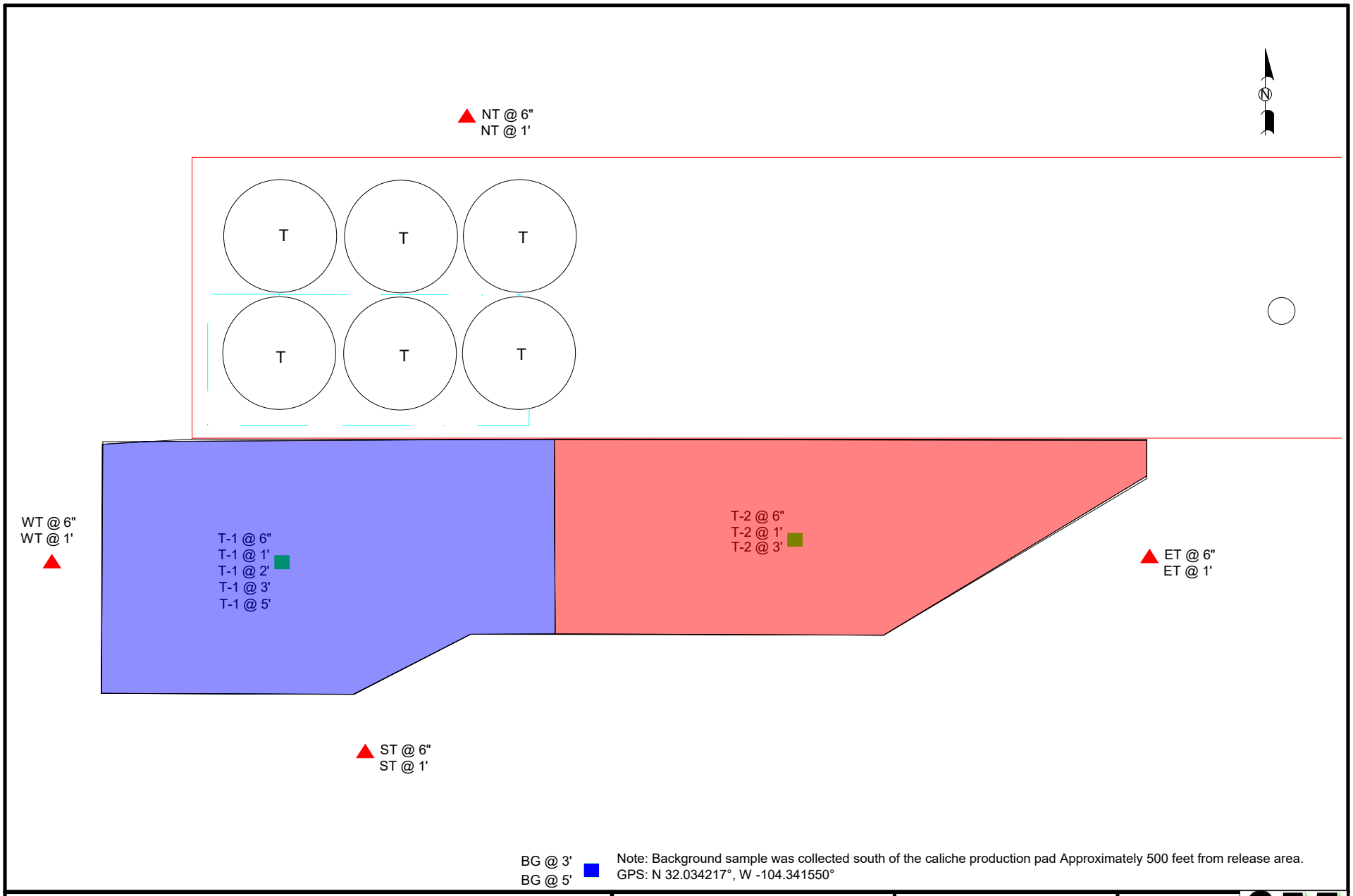
Sincerely,

Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

Enclosed:

Appendix I: Site Diagram
Appendix II: Initial C-141 (Copy)
Appendix III: Final C-141
Appendix IV: Appendix V: Approved Work Plan (Copy)

APPENDIX I



LEGEND:
- Excavate to three feet below ground surface
- Excavate to one feet below ground surface
- Horizontal Delineation Soil Sample Location
- Vertical Soil Sample Location
- Approximate Background Soil Sample Location
- Plastic Lined Steel Secondary Containment

Note: Map is not to scale

Figure 2
Site Details &
Soil Sample Location Map
COG Operating LLC
Glacier Federal Com #001H
Eddy County, TX

CAD By: AR
Checked By: MG
Draft: April 10, 2018
Lat. N 32.03433384° Long. W 104.34251690°

2M Environmental Services, LLC

APPENDIX II

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 02 2018
RECEIVED

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

nAB1806434208

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: **Glacier Federal Com #001H**	Facility Type: **Tank Battery**

Surface Owner: BLM	Mineral Owner: Federal	API No.: 30-015-43131

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	24	26S	25E	330	North	560	East	Eddy

Latitude: 32.03433384 **Longitude**:-104.34251690 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 334bbls	Volume Recovered: 330bbls
Source of Release: Filter Pot	Date and Hour of Occurrence: 2/27/2018	Date and Hour of Discovery: 2/27/2018 10:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Crystal Weaver-NMOCD Shelly Tucker-BLM	
By Whom? Sheldon Hitchcock	Date and Hour: 2/27/2018 1:31pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The 1-inch steel plug on the filter pot failed due to corrosion. The plug was replaced with a stainless steel plug.

Describe Area Affected and Cleanup Action Taken.*

The majority of the fluid remained inside of the lined secondary containment. There was a small amount of overspray that impacted the location adjacent to the battery. A vacuum truck was dispatched to recover all freestanding fluids. Concho will have the spill area evaluated for 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: Sheldon Hitchcock	OIL CONSERVATION DIVISION
Printed Name: Sheldon L. Hitchcock	Approved by Environmental Specialist: Mike Bratcher
Title: HSE Coordinator	Approval Date: 3/5/18 Expiration Date: N/A
E-mail Address: slhitchcock@concho.com	Conditions of Approval: See attached Attached ☐ ERP-4642
Date: 3/2/2018 Phone: 575-746-2010	

* Attach Additional Sheets If Necessary

APPENDIX III

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

State of New Mexico
Energy Minerals and Natural Resources 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	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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)	Volume Recovered (bbls)
	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		

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

☐ The source of the release has been stopped.

☐ The impacted area has been secured to protect human health and the environment.

☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☐ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: _____ Title: _____

Signature: Sheldon Hitson Date: _____

email: _____ Telephone: _____

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: _____ Title: _____

Signature: Sheldon Hitson _____ Date: _____

email: _____ Telephone: _____

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: Ashley Maxwell Date: _____

Printed Name: _____ Title: _____

APPENDIX IV

2M Environmental Services, LLC
1219 W. University Blvd.
Odessa, TX 79764

June 22, 2018

Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Shelly Tucker
U.S Department of the Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220
Stucker@blm.gov

Re: Soil Investigation Summary and Proposed Remediation Workplan
Glacier Federal COM #001H (2RP-4642)
GPS: N 32.03433384° W 104.34251690°
Unit Letter "A", Section 24, Township 26 South, Range 25 East, NMPM
Eddy County, New Mexico

Dear Mr. Bratcher and Ms. Tucker,

2M Environmental Services, LLC. (2M), on behalf of COG Operating, LLC. (Concho), has prepared this Soil Investigation Summary and Proposed Remediation Workplan (Workplan) for the Glacier Federal COM #001H Release Site (Release Site). The purpose of this Workplan is to propose remediation activities designed to advance the Glacier Federal COM #001H Release Site toward a New Mexico Oil and Conservation District (NMOCD) approved Site Closure Status. The legal description of the Release Site is Unit Letter "A", Section 24, Township 26 South, Range 25 East, in Eddy County, New Mexico. The subject property is administered by the New Mexico U.S. Department of the Interior Bureau of Land Management (BLM). The GPS coordinates for the site are N 32.03433384° W 104.34251690°. A Site Location Map and Site Details and Soil Sample Location Map are provided as Figure 1 and Figure 2, respectively.

On February 27, 2018, a produced water release occurred at the Glacier Federal COM #001H. The release was the result of corrosion of the one (1) inch steel plug on the filter pot, which resulted in the release of produced water inside the lined steel secondary containment and overspray outside of the secondary containment south of the tank battery contained on the caliche pad. On February 27, 2018, Concho reported the release to the NMOCD District 2 Office, located in Artesia, New Mexico, and BLM. The release was assigned an incident number 2RP-4642. A Release Notification and Corrective Action Form (Form C-141) was subsequently submitted to the NMOCD on March 2, 2018. The release was reported as approximately three hundred thirty-four (334) barrels of produced water released with three hundred thirty (330) barrels of produced water recovered, resulting in a net loss of approximately four (4) barrels of produced water. A copy of the NMOCD Release Notification and Corrective Action Form C-141 is attached to this Workplan.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) identified the average depth to groundwater in Section 24, Township 26 South, Range 25 East is approximately eleven (11) feet below ground surface (bgs). Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one thousand (1,000) feet of the release. Based on the NMOCD site classification system, twenty (20) points will be assigned to the subject area ranking as a result of this criterion.

Based on the NMOCD Site Classification criteria, the Release Site remediation levels are 10 mg/Kg for benzene, 50 mg/Kg for benzene, toluene, ethylbenzene and xylenes (BTEX) and 100 mg/Kg for total petroleum hydrocarbons (TPH). Chloride remediation levels for the Release Site will be 600 mg/Kg, per NMOCD request.

On March 15, 2018, 2M, on behalf of Concho, utilized a hand auger and/or a backhoe to collect eight (8) delineation soil samples (T-1 @ 6”, T-1 @ 1’, T-1 @ 2’, T-1 @ 3’, T-1 @ 5’, T-2 @ 6”, T-2 @ 1’, and T-2 @ 3’) from the impacted area south of the secondary containment. In addition to the soil samples described above, eight (8) soil samples (NT @ 6”, NT @ 1’, ET @ 6”, ET @ 1’, ST @ 6”, ST @ 1’, WT @ 6”, and WT @ 1’) were collected utilizing a hand auger and/or backhoe approximately five (5) feet from the outer perimeter of the impacted area. Two (2) background samples (BG @ 3’ and BG @ 5’) were collected south of the Glacier Federal COM # 001H caliche pad. The soil samples were submitted to Permian Basin Environmental Lab in Midland, Texas for determination of concentrations of BTEX using Method SW 846-8021B, TPH using Method SW 846-8015M, and chloride using Method E-300.1. Sample results are provided as an attachment to this report (Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil).

Based on the analytical results of the soil samples collected on March 15, 2018, Concho proposes the following field activities designed to remediate the Glacier Federal COM #001H:

- Utilizing a backhoe, excavate the area represented by sample point T-1 to approximately three (3) feet bgs and the area represented by sample point T-2 to approximately one (1) foot bgs.
- Excavated soil will be stockpiled on a plastic liner adjacent to the excavation pending disposal.

- The excavation will be backfilled with locally purchased non-impacted "like" soil or caliche. In addition, the excavated soil will be transported under manifest to a NMOCD approved disposal facility.
- Prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD and BLM.

Concho is prepared to begin the activities outlined in this Proposed Remediation Workplan on NMOCD and BLM approval.

If you have any questions, or if additional information is required, please feel free to call me at 432-614-6793 (office) or 432-230-3763 (cell).

Thank you,

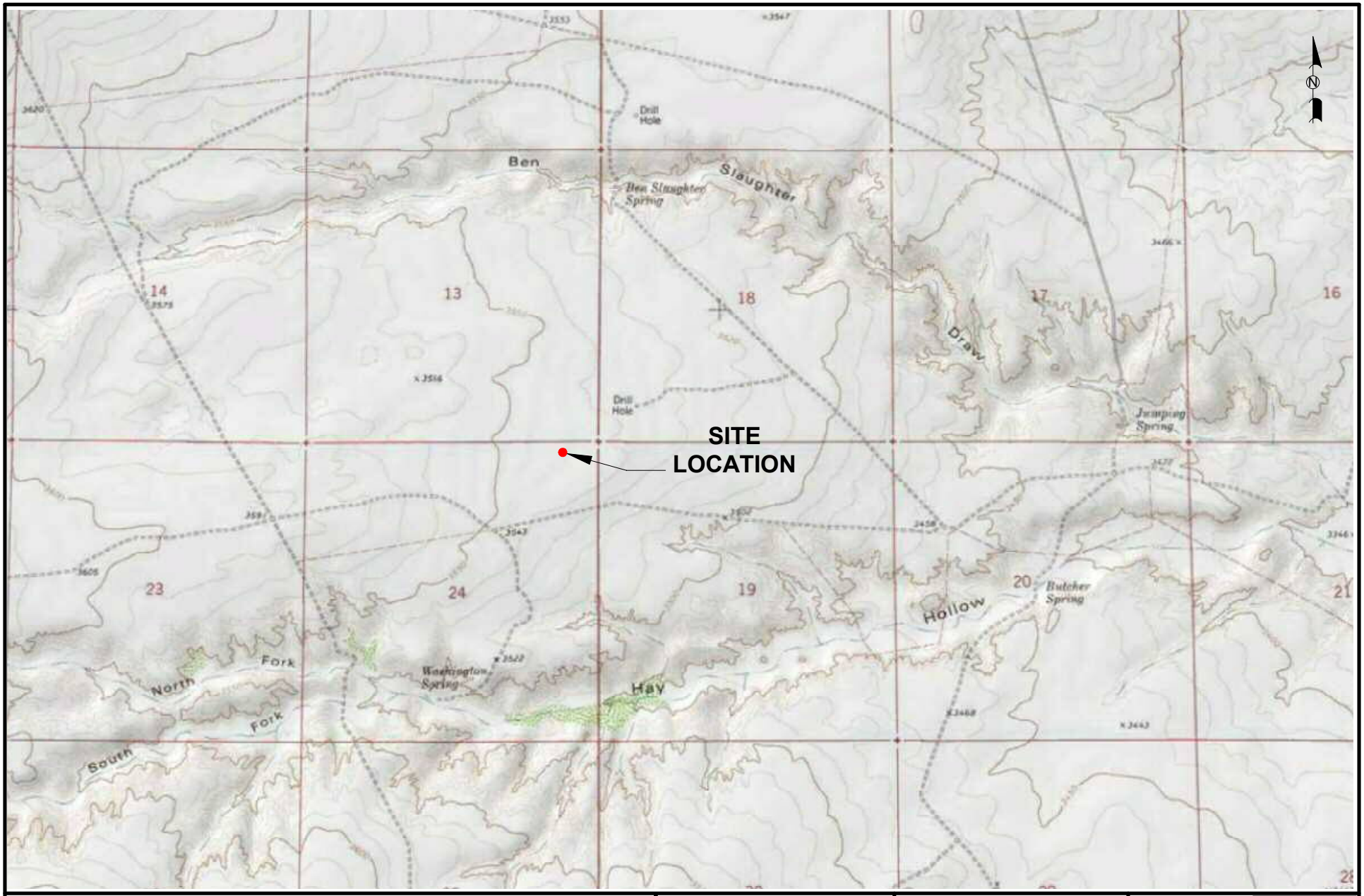
Matthew Green

Matthew Green, P.G.
President
2M Environmental Services, LLC.

Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Details and Soil Sample Location Map
Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil
Laboratory Analytical Results
Release Notification and Corrective Action (Form C-141)

cc: File



LEGEND:

Native Grassland

2000 1000 0 1000 2000

Distance in Feet

Figure 1

Site Location Map

COG Operating LLC

Glacier Federal Com #001H

Eddy County, TX

Scale: 1" = 2000'
CAD By: AR
Checked By: MG
Date: April 10, 2018
Lat. N 32.03433384°, Long. W 104.34251690°

2M Environmental Services, LLC

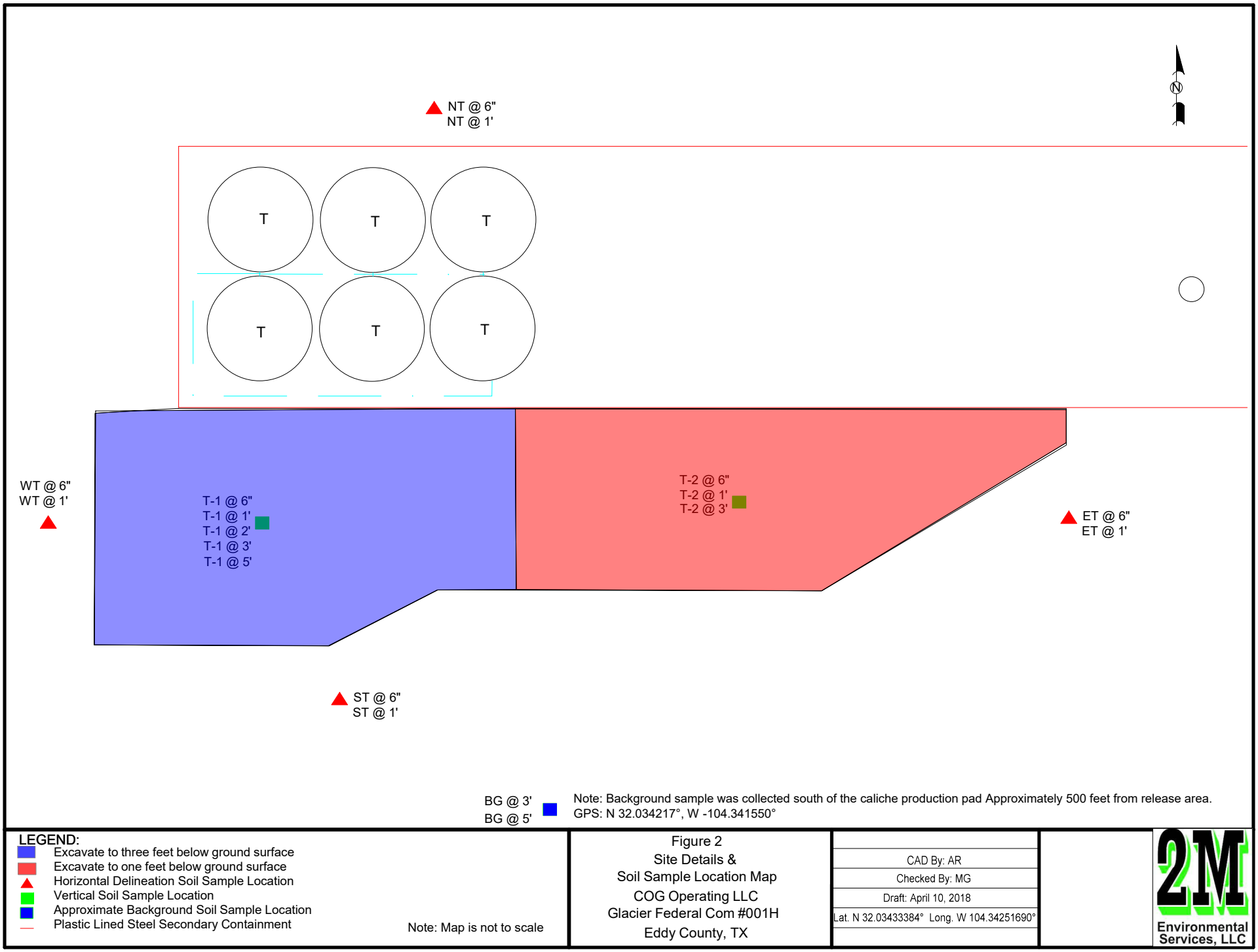

NT @ 6"
NT @ 1'
N
T
T
T
T
T
T
WT @ 6"
WT @ 1'
T-1 @ 6"
T-1 @ 1'
T-1 @ 2'
T-1 @ 3'
T-1 @ 5'
T-2 @ 6"
T-2 @ 1'
T-2 @ 3'
ET @ 6"
ET @ 1'
ST @ 6"
ST @ 1'
BG @ 3'
BG @ 5'
Note: Background sample was collected south of the caliche production pad Approximately 500 feet from release area.
GPS: N 32.034217°, W -104.341550°
LEGEND:
Excavate to three feet below ground surface
Excavate to one feet below ground surface
Horizontal Delineation Soil Sample Location
Vertical Soil Sample Location
Approximate Background Soil Sample Location
Plastic Lined Steel Secondary Containment
Note: Map is not to scale
Figure 2
Site Details &
Soil Sample Location Map
COG Operating LLC
Glacier Federal Com #001H
Eddy County, TX
CAD By: AR
Checked By: MG
Draft: April 10, 2018
Lat. N 32.03433384° Long. W 104.34251690°
2M
Environmental
Services, LLC

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CONCHO OPERATING, LLC

GLACIER FEDERAL COM #001H RELEASE SITE

EDDY COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021B						METHOD: SW 8015M					E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C_6-C_{12}	TPH DRO C_{12}-C_{28}	TPH ORO C_{28}-C_{35}	TOTAL TPH C_6-C_{35}	CHLORIDE
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
T-1 @ 6"	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2,650**
T-1 @ 1'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	335
T-1 @ 2'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,460**
T-1 @ 3'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	177
T-1 @ 5'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	149
T-2 @ 6"	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,440**
T-2 @ 1'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	289
T-2 @ 3'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
NT @ 6"	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NT @ 1'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ET @ 6"	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	78.9
ET @ 1'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	90.9
ST @ 6"	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40.0
ST @ 1'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	43.8
WT @ 6"	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39.5
WT @ 1'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46.2
BG @ 3'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	308
BG @ 5'	3/15/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green

2M Environmental Services, LLC.

1219 W. University Blvd.

Odessa, TEXAS 79764

Project: COG glacier Federal COM #001H

Project Number: [none]

Location: Eddy County, NM

Lab Order Number: 8C20019

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 03/27/18

2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa TEXAS, 79764

Project: COG glacier Federal COM #001H
Project Number: [none]
Project Manager: Matt Green

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-1 @ 6"	8C20019-01	Soil	03/15/18 12:28	03-20-2018 15:42
T-1 @ 1'	8C20019-02	Soil	03/15/18 12:32	03-20-2018 15:42
T-1 @ 2'	8C20019-03	Soil	03/15/18 12:35	03-20-2018 15:42
T-1 @ 3'	8C20019-04	Soil	03/15/18 12:39	03-20-2018 15:42
T-1 @ 5'	8C20019-05	Soil	03/15/18 13:00	03-20-2018 15:42
BG @ 3'	8C20019-06	Soil	03/15/18 14:10	03-20-2018 15:42
BG @ 5'	8C20019-07	Soil	03/15/18 14:15	03-20-2018 15:42
T-2 @ 6"	8C20019-08	Soil	03/15/18 14:52	03-20-2018 15:42
T-2 @ 1'	8C20019-09	Soil	03/15/18 14:55	03-20-2018 15:42
T-2 @ 3'	8C20019-10	Soil	03/15/18 15:04	03-20-2018 15:42
NT @ 6"	8C20019-11	Soil	03/15/18 15:35	03-20-2018 15:42
NT @ 1'	8C20019-12	Soil	03/15/18 15:39	03-20-2018 15:42
ET @ 6"	8C20019-13	Soil	03/15/18 15:40	03-20-2018 15:42
ET @ 1'	8C20019-14	Soil	03/15/18 15:43	03-20-2018 15:42
ST @ 6"	8C20019-15	Soil	03/15/18 15:45	03-20-2018 15:42
ST @ 1'	8C20019-16	Soil	03/15/18 15:46	03-20-2018 15:42
WT @ 6"	8C20019-17	Soil	03/15/18 15:55	03-20-2018 15:42
WT @ 1'	8C20019-18	Soil	03/15/18 15:57	03-20-2018 15:42

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @ 6"

8C20019-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Toluene	ND	0.0110	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.00549	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.0220	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.0110	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*130 %*	*75-125*		*P8C2103*	*03/21/18*	*03/21/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*91.5 %*	*75-125*		*P8C2103*	*03/21/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2650**	27.5	mg/kg dry	25	P8C2203	03/22/18	03/23/18	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @ 1'

8C20019-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Toluene	ND	0.0110	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.00549	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.0220	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.0110	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*82.4 %*	*75-125*		*P8C2103*	*03/21/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*119 %*	*75-125*		*P8C2103*	*03/21/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**335**	27.5	mg/kg dry	25	P8C2203	03/22/18	03/23/18	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*109 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @ 2'

8C20019-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Toluene	ND	0.0104	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.00521	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.0208	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.0104	mg/kg dry	1	P8C2103	03/21/18	03/21/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*109 %*	*75-125*		*P8C2103*	*03/21/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*81.1 %*	*75-125*		*P8C2103*	*03/21/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1460**	26.0	mg/kg dry	25	P8C2203	03/22/18	03/23/18	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*78.2 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.4 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @ 3'

8C20019-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*123 %*	*75-125*		*P8C2103*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*80.5 %*	*75-125*		*P8C2103*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**177**	1.09	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*130 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*139 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @ 5'

8C20019-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0211	mg/kg dry	20	P8C2103	03/21/18	03/23/18	EPA 8021B	
Toluene	ND	0.211	mg/kg dry	20	P8C2103	03/21/18	03/23/18	EPA 8021B	
Ethylbenzene	ND	0.105	mg/kg dry	20	P8C2103	03/21/18	03/23/18	EPA 8021B	
Xylene (p/m)	ND	0.421	mg/kg dry	20	P8C2103	03/21/18	03/23/18	EPA 8021B	
Xylene (o)	ND	0.211	mg/kg dry	20	P8C2103	03/21/18	03/23/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*88.1 %*	*75-125*		*P8C2103*	*03/21/18*	*03/23/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*123 %*	*75-125*		*P8C2103*	*03/21/18*	*03/23/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**149**	1.05	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*121 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BG @ 3'

8C20019-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0102	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00510	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0204	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0102	mg/kg dry	1	P8C2103	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*73.3 %*	*75-125*		*P8C2103*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
Surrogate: 4-Bromofluorobenzene		*98.9 %*	*75-125*		*P8C2103*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**308**	1.02	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

BG @ 5'

8C20019-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0102	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00510	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0204	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0102	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*90.8 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*146 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.02	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-2 @ 6"

8C20019-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*97.1 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*114 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1440**	27.2	mg/kg dry	25	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.2 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.2 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-2 @ 1'

8C20019-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0103	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00515	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0206	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0103	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*133 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*94.1 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**289**	1.03	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-2 @ 3'

8C20019-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0105	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00526	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0211	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0105	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*71.4 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*76.0 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**230**	1.05	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*71.8 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*75.0 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

NT @ 6"

8C20019-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0104	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00521	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0208	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0104	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*84.7 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*118 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.04	mg/kg dry	1	P8C2302	03/23/18	03/26/18	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*119 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

NT @ 1'

8C20019-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0104	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00521	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0208	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0104	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*102 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*84.3 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.04	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*77.9 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*81.3 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ET @ 6"

8C20019-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0112	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00562	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0225	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0112	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*72.0 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**78.9**	1.12	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.5 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*93.6 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ET @ 1'

8C20019-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0112	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00562	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0225	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0112	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*88.9 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*86.7 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**90.9**	1.12	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ST @ 6"

8C20019-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*83.4 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*131 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**40.0**	1.09	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*76.2 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*79.4 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ST @ 1'

8C20019-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*102 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*159 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**43.8**	1.08	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*70.5 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*76.3 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

WT @ 6"

8C20019-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*95.5 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*140 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**39.5**	1.06	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*113 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*123 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

WT @ 1'

8C20019-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8C2104	03/21/18	03/22/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*152 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P8C2104*	*03/21/18*	*03/22/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**46.2**	1.06	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P8C2307	03/23/18	03/23/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8C2108	03/21/18	03/22/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*116 %*	*70-130*		*P8C2108*	*03/21/18*	*03/22/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	03/21/18	03/22/18	calc	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2103 - General Preparation (GC)										
Blank (P8C2103-BLK1)				Prepared & Analyzed: 03/21/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 4-Bromofluorobenzene	*0.0746*		"	*0.0600*		*124*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0572*		"	*0.0600*		*95.4*	*75-125*			
LCS (P8C2103-BS1)				Prepared & Analyzed: 03/21/18						
Benzene	0.0821	0.00100	mg/kg wet	0.100		82.1	70-130			
Toluene	0.0918	0.0100	"	0.100		91.8	70-130			
Ethylbenzene	0.112	0.00500	"	0.100		112	70-130			
Xylene (p/m)	0.202	0.0200	"				70-130			
Xylene (o)	ND	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0472*		"	*0.0600*		*78.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0559*		"	*0.0600*		*93.2*	*75-125*			
LCS Dup (P8C2103-BSD1)				Prepared & Analyzed: 03/21/18						
Benzene	0.0866	0.00100	mg/kg wet	0.100		86.6	70-130	5.23	20	
Toluene	0.0913	0.0100	"	0.100		91.3	70-130	0.503	20	
Ethylbenzene	0.116	0.00500	"	0.100		116	70-130	3.72	20	
Xylene (p/m)	0.203	0.0200	"				70-130		20	
Xylene (o)	ND	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0499*		"	*0.0600*		*83.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0552*		"	*0.0600*		*92.0*	*75-125*			
Matrix Spike (P8C2103-MS1)	**Source: 8C20017-01**			Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	0.0345	0.00105	mg/kg dry	0.105	ND	32.8	80-120			QM-05
Toluene	0.0410	0.0105	"	0.105	ND	39.0	80-120			QM-05
Ethylbenzene	0.0523	0.00526	"	0.105	0.00409	45.8	80-120			QM-05
Xylene (p/m)	0.112	0.0211	"		0.00513		80-120			
Xylene (o)	ND	0.0105	"		ND		80-120			
Surrogate: 1,4-Difluorobenzene	*0.0396*		"	*0.0632*		*62.7*	*75-125*			*S-GC*
Surrogate: 4-Bromofluorobenzene	*0.0647*		"	*0.0632*		*102*	*75-125*			

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2103 - General Preparation (GC)										
Matrix Spike Dup (P8C2103-MSD1)	**Source: 8C20017-01**			Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	0.0637	0.00105	mg/kg dry	0.105	ND	60.5	80-120	59.3	20	QM-05
Toluene	0.0945	0.0105	"	0.105	ND	89.8	80-120	78.9	20	QM-05
Ethylbenzene	0.108	0.00526	"	0.105	0.00409	98.5	80-120	73.1	20	QM-05
Xylene (p/m)	0.182	0.0211	"		0.00513		80-120		20	
Xylene (o)	ND	0.0105	"		ND		80-120		20	
Surrogate: 4-Bromofluorobenzene	*0.118*		*"*	*0.0632*		*187*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0919*		*"*	*0.0632*		*145*	*75-125*			
Batch P8C2104 - General Preparation (GC)										
Blank (P8C2104-BLK1)				Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0394*		*"*	*0.0600*		*65.7*	*75-125*			*S-GC*
Surrogate: 4-Bromofluorobenzene	*0.0553*		*"*	*0.0600*		*92.2*	*75-125*			
LCS (P8C2104-BS1)				Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	0.0916	0.00100	mg/kg wet	0.100		91.6	70-130			
Toluene	0.0922	0.0100	"	0.100		92.2	70-130			
Ethylbenzene	0.115	0.00500	"	0.100		115	70-130			
Xylene (p/m)	0.207	0.0200	"				70-130			
Xylene (o)	ND	0.0100	"				70-130			
Surrogate: 4-Bromofluorobenzene	*0.0673*		*"*	*0.0600*		*112*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0608*		*"*	*0.0600*		*101*	*75-125*			

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2104 - General Preparation (GC)										
LCS Dup (P8C2104-BSD1)				Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	0.0859	0.00100	mg/kg wet	0.100		85.9	70-130	6.44	20	
Toluene	0.0903	0.0100	"	0.100		90.3	70-130	2.02	20	
Ethylbenzene	0.113	0.00500	"	0.100		113	70-130	1.44	20	
Xylene (p/m)	0.199	0.0200	"				70-130		20	
Xylene (o)	ND	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0559*		*"*	*0.0600*		*93.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0629*		*"*	*0.0600*		*105*	*75-125*			
Matrix Spike (P8C2104-MS1)		**Source: 8C20021-08**		Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	0.0728	0.00110	mg/kg dry	0.110	ND	66.3	80-120			
Toluene	0.0579	0.0110	"	0.110	ND	52.7	80-120			
Ethylbenzene	0.0634	0.00549	"	0.110	ND	57.7	80-120			
Xylene (p/m)	0.0476	0.0220	"		ND		80-120			
Xylene (o)	ND	0.0110	"		ND		80-120			
Surrogate: 4-Bromofluorobenzene	*0.0869*		*"*	*0.0659*		*132*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0724*		*"*	*0.0659*		*110*	*75-125*			
Matrix Spike Dup (P8C2104-MSD1)		**Source: 8C20021-08**		Prepared: 03/21/18 Analyzed: 03/22/18						
Benzene	0.0812	0.00110	mg/kg dry	0.110	ND	73.9	80-120	10.9	20	
Toluene	0.0750	0.0110	"	0.110	ND	68.2	80-120	25.7	20	
Ethylbenzene	0.0900	0.00549	"	0.110	ND	81.9	80-120	34.7	20	
Xylene (p/m)	0.0844	0.0220	"		ND		80-120		20	
Xylene (o)	ND	0.0110	"		ND		80-120		20	
Surrogate: 1,4-Difluorobenzene	*0.0695*		*"*	*0.0659*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0814*		*"*	*0.0659*		*123*	*75-125*			

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2203 - * DEFAULT PREP *** **										
Blank (P8C2203-BLK1)				Prepared: 03/22/18 Analyzed: 03/23/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2203-BS1)				Prepared: 03/22/18 Analyzed: 03/23/18						
Chloride	386	1.00	mg/kg wet	400		96.5	80-120			
LCS Dup (P8C2203-BSD1)				Prepared: 03/22/18 Analyzed: 03/23/18						
Chloride	421	1.00	mg/kg wet	400		105	80-120	8.73	20	
Duplicate (P8C2203-DUP1)		**Source: 8C20010-01**		Prepared: 03/22/18 Analyzed: 03/23/18						
Chloride	13000	56.8	mg/kg dry		11000			16.2	20	
Duplicate (P8C2203-DUP2)		**Source: 8C20017-08**		Prepared: 03/22/18 Analyzed: 03/23/18						
Chloride	0.922	1.11	mg/kg dry		0.600			42.3	20	
Matrix Spike (P8C2203-MS1)		**Source: 8C20010-01**		Prepared: 03/22/18 Analyzed: 03/23/18						
Chloride	18800	56.8	mg/kg dry	5680	11000	137	80-120			
Batch P8C2302 - * DEFAULT PREP *** **										
Blank (P8C2302-BLK1)				Prepared & Analyzed: 03/23/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2302-BS1)				Prepared & Analyzed: 03/23/18						
Chloride	422	1.00	mg/kg wet	400		105	80-120			
LCS Dup (P8C2302-BSD1)				Prepared & Analyzed: 03/23/18						
Chloride	422	1.00	mg/kg wet	400		105	80-120	0.104	20	

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2302 - * DEFAULT PREP *** **										
Duplicate (P8C2302-DUP1)	**Source: 8C22008-01**			Prepared & Analyzed: 03/23/18						
Chloride	8420	27.5	mg/kg dry		8420			0.0914	20	
Duplicate (P8C2302-DUP2)	**Source: 8C22007-05**			Prepared & Analyzed: 03/23/18						
Chloride	100	10.1	mg/kg dry		111			10.5	20	
Matrix Spike (P8C2302-MS1)	**Source: 8C22008-01**			Prepared & Analyzed: 03/23/18						
Chloride	10700	27.5	mg/kg dry	2200	8420	103	80-120			
Batch P8C2307 - * DEFAULT PREP *** **										
Blank (P8C2307-BLK1)				Prepared & Analyzed: 03/23/18						
% Moisture	ND	0.1	%							
Duplicate (P8C2307-DUP1)	**Source: 8C20021-06**			Prepared & Analyzed: 03/23/18						
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P8C2307-DUP2)	**Source: 8C22004-01**			Prepared & Analyzed: 03/23/18						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Batch P8C2607 - * DEFAULT PREP *** **										
Blank (P8C2607-BLK1)				Prepared & Analyzed: 03/26/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2607-BS1)				Prepared & Analyzed: 03/26/18						
Chloride	414	1.00	mg/kg wet	400		103	80-120			

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2607 - * DEFAULT PREP *** **										
LCS Dup (P8C2607-BSD1)				Prepared & Analyzed: 03/26/18						
Chloride	410	1.00	mg/kg wet	400		103	80-120	0.903	20	
Duplicate (P8C2607-DUP1)		**Source: 8C23003-01**		Prepared & Analyzed: 03/26/18						
Chloride	507	1.09	mg/kg dry		503			0.657	20	
Duplicate (P8C2607-DUP2)		**Source: 8C20021-03**		Prepared & Analyzed: 03/26/18						
Chloride	7010	27.8	mg/kg dry		6990			0.309	20	
Matrix Spike (P8C2607-MS1)		**Source: 8C23003-01**		Prepared & Analyzed: 03/26/18						
Chloride	1600	1.09	mg/kg dry	1090	503	101	80-120			

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2108 - General Preparation (GC)										
Blank (P8C2108-BLK1)				Prepared: 03/21/18 Analyzed: 03/22/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*63.5*		*"*	*50.0*		*127*	*70-130*			
LCS (P8C2108-BS1)				Prepared: 03/21/18 Analyzed: 03/22/18						
C6-C12	1200	25.0	mg/kg wet	1000		120	75-125			
>C12-C28	1200	25.0	"	1000		120	75-125			
Surrogate: 1-Chlorooctane	*118*		*"*	*100*		*118*	*70-130*			
Surrogate: o-Terphenyl	*62.4*		*"*	*50.0*		*125*	*70-130*			
LCS Dup (P8C2108-BSD1)				Prepared: 03/21/18 Analyzed: 03/22/18						
C6-C12	1170	25.0	mg/kg wet	1000		117	75-125	2.45	20	
>C12-C28	1180	25.0	"	1000		118	75-125	1.79	20	
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*58.2*		*"*	*50.0*		*116*	*70-130*			
Matrix Spike (P8C2108-MS1)	**Source: 8C20021-01**			Prepared: 03/21/18 Analyzed: 03/22/18						
C6-C12	852	27.2	mg/kg dry	1090	12.2	77.3	75-125			
>C12-C28	851	27.2	"	1090	ND	78.3	75-125			
Surrogate: 1-Chlorooctane	*107*		*"*	*109*		*98.8*	*70-130*			
Surrogate: o-Terphenyl	*43.8*		*"*	*54.3*		*80.6*	*70-130*			
Matrix Spike Dup (P8C2108-MSD1)	**Source: 8C20021-01**			Prepared: 03/21/18 Analyzed: 03/22/18						
C6-C12	843	27.2	mg/kg dry	1090	12.2	76.5	75-125	1.07	20	
>C12-C28	845	27.2	"	1090	ND	77.8	75-125	0.701	20	
Surrogate: 1-Chlorooctane	*107*		*"*	*109*		*98.8*	*70-130*			
Surrogate: o-Terphenyl	*47.1*		*"*	*54.3*		*86.7*	*70-130*			

2M Environmental Services, LLC.	Project: COG glacier Federal COM #001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 3/27/2018

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: COG Glacier Federal COM #001H
Project #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only) ORDER #: 8042019

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TOTAL: TPH: 8015B	TPH: TX 1005 Ext	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	GRO/DRO	Chlorides E 300			RUSH TAT (Pre-schedule) 24, 48, 72 hrs	Standard TAT
01	T-1 @ 6"			3/15/2018	1228		1	x								S	X										X			X				X
02	T-1 @ 1'			3/15/2018	1232		1	x								S	X										X			X				X
03	T-1 @ 2'			3/15/2018	1235		1	x								S	X										X			X				X
04	T-1 @ 3'			3/15/2018	1239		1	x								S	X										X			X				X
05	T-1 @ 5'			3/15/2018	1300		1	x								S	X										X			X				X
06	BG @ 3'			3/15/2018	1410		1	x								S	X										X			X				X
07	BG @ 5'			3/15/2018	1415		1	x								S	X										X			X				X
08	T-2 @ 6"			3/15/2018	1452		1	x								S	X										X			X				X
09	T-2 @ 1'			3/15/2018	1455		1	x								S	X										X			X				X
10	T-2 @ 3'			3/15/2018	1504		1	x								S	X										X			X				X

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Matthew Green	3-20-18	14:11	Received by:	3/20/18	14:11
Relinquished by:	3/20/18		Received by:		
Relinquished by:	Date	Time	Received by PBEL:	3/20/18	1510

Laboratory Comments:

VOC Field Headspace? Y N
Correct Containers? Y N
Sample Hand Delivered by Sampler/Client Rep.? Y N
Sample Shipped by Courier? UPS DHL FedEx Lone Ster
Temperature Upon Receipt: Received: 4.1 °C Adjusted: 4.0 °C Factor 4.5

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: COG Glacier Federal COM #001H
Project #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only) ORDER #: 8C20019

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 8015B	TPH: TX 1005 Ext TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	NT @ 6"			3/15/2018	1535		1	x								S	X								X			X				X
2	NT @ 1'			3/15/2018	1539		1	x								S	X								X			X				X
3	ET @ 6"			3/15/2018	1540		1	x								S	X								X			X				X
4	ET @ 1'			3/15/2018	1543		1	x								S	X								X			X				X
5	ST @ 6"			3/15/2018	1545		1	x								S	X								X			X				X
6	ST @ 1'			3/15/2018	1546		1	x								S	X								X			X				X
7	WT @ 6"			3/15/2018	1555		1	x								S	X								X			X				X
8	WT @ 1'			3/15/2018	1557		1	x								S	X								X			X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	3-20-18	14:11		3/20/18	14:11
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:

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**: Glacier Federal Com #001H**	Facility Type**: Tank Battery**

Surface Owner: BLM	Mineral Owner: Federal	API No.: 30-015-43131

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	24	26S	25E	330	North	560	East	Eddy

Latitude: 32.03433384 **Longitude**:-104.34251690 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 334bbls	Volume Recovered: 330bbls
Source of Release: Filter Pot	Date and Hour of Occurrence: 2/27/2018	Date and Hour of Discovery: 2/27/2018 10:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Crystal Weaver-NMOCD Shelly Tucker-BLM	
By Whom? Sheldon Hitchcock	Date and Hour: 2/27/2018 1:31pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The 1-inch steel plug on the filter pot failed due to corrosion. The plug was replaced with a stainless steel plug.

Describe Area Affected and Cleanup Action Taken.*

The majority of the fluid remained inside of the lined secondary containment. There was a small amount of overspray that impacted the location adjacent to the battery. A vacuum truck was dispatched to recover all freestanding fluids. Concho will have the spill area evaluated for 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: Sheldon Hitchcock	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Sheldon L. Hitchcock		
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: slhitchcock@concho.com	Conditions of Approval:	Attached ☐
Date: 3/2/2018 Phone: 575-746-2010		

* Attach Additional Sheets If Necessary

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

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

CONDITIONS

Action 161246

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 161246
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	11/23/2022