

January 17, 2018

Olivia Yu  
Oil Conservation Division, District 1  
1625 N. French Dr.  
Hobbs, NM 88240

**Re: Work Plan**  
**Gettysburg State Com #002H**  
**API #: 30-025-40874**  
**RP#: 1RP-4823**  
**Unit Letter C Section 16, Township 23S, Range 34E**  
**Lea County, NM**

**APPROVED**

***By Olivia Yu at 3:21 pm, Jan 23, 2018***

NMOCD approves of the delineation completed for 1RP-4823 and proposed remediation with these conditions:

- 1) Confirmation bottoms and sidewalls required for T-1 area.
- 2) Confirmation sidewalls for the T-2 & T-3 area.

Ms. Yu,

COG Operating, LLC (COG) is pleased to submit for your consideration the following remediation work plan for the Gettysburg State Com #002H. This plan is in response to a produced water release that occurred on September 23, 2017. Subsequent to the release a C-141 initial report was submitted to the New Mexico Oil Conservation Division (NMOCD) on September 15, 2017.

## BACKGROUND

The Gettysburg State Com #002H release is located in Unit Letter C, Section 16, Township 23 South, and Range 34 East in Lea County, New Mexico. More specifically the latitude and longitude for this release are 32.310366 North and -103.474944 West.

On September 23, 2017, a flowline failed resulting in the release of approximately twenty (20) bbls of produced water in the pasture south of the lease road.

On October 12, 2017, a site assessment and soil sampling were conducted in order to vertically and horizontally define the impacted area. A site diagram is included in Appendix I. The analytical results from the soil sampling activities are summarized in the table below.

## GROUNDWATER AND SITE RANKING

According to the New Mexico Office of the State Engineer (NMOSE) groundwater in the project vicinity is approximately two-hundred and fifty-five (255) 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

### Analytical Results

10/12/2017

Sample ID	Depth (feet)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)
T-1	0	<0.002	<0.002	1100	<25.0
T-1	1	<0.002	<0.002	998	<25.0
T-1	2	--	--	929	--
T-1	3	--	--	36.2	--
T-1	4	--	--	5.71	--
T-1	9	--	--	<4.96	--
T-2	0	<0.002	<0.002	23.4	<25.0
T-2	1	<0.002	<0.002	1430	<25.0
T-2	2	--	--	4480	--
T-2	3	--	--	4360	--
T-2	4	--	--	1250	--
T-2	5	--	--	1260	--
T-2	6	--	--	976	--
T-2	8	--	--	90.9	--
T-2	13	--	--	19.0	--
T-3	0	<0.002	<0.002	7.62	<25.0
T-3	1	<0.002	<0.002	602	<25.0
T-3	2	--	--	4700	--
T-3	3	--	--	5760	--
T-3	4	--	--	5570	--
T-3	6	--	--	1760	--

10/12/2017 Continued

<b>Sample ID</b>	<b>Depth (feet)</b>	<b>Benzene (mg/kg)</b>	<b>Total BTEX (mg/kg)</b>	<b>Chloride (mg/kg)</b>	<b>Total TPH (mg/kg)</b>
<b>T-3</b>	8	--	--	780	--
<b>T-3</b>	10	--	--	1710	--
<b>T-3</b>	12	--	--	1040	--
<b>T-3</b>	14	--	--	1720	--
<b>T-3</b>	16	--	--	133	--
<b>T-3</b>	18	--	--	192	--
<b>T-4</b>	0	<0.002	<0.002	<5.00	<25.0
<b>T-4</b>	1	<0.002	<0.002	<5.00	<25.0
<b>T-4</b>	2	--	--	<5.00	--
<b>T-4</b>	3	--	--	12.7	--
<b>T-4</b>	4	--	--	<5.00	--
<b>T-4</b>	9	--	--	<5.00	--
<b>NORTH</b>	0	--	--	<5.00	--
<b>SOUTH</b>	0	--	--	<5.00	--
<b>WEST</b>	0	--	--	<5.00	--
<b>EAST</b>	0	--	--	<5.00	--

(-- ) Analysis not requested

## PROPOSED REMEDIAL ACTIONS

- The impacted area in the vicinity of sample location T-1 will be excavated to a depth of three (3) feet BGS.
- The impacted area in the vicinity of T-2 and T-3 will be excavated to a depth of four (4) feet BGS. A twenty (20) mil reinforced liner will be installed at the bottom of the excavation to encapsulate the remaining chloride impacts.
- All of the excavated material will be transported to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with clean “like” material and contoured to match the surrounding terrain.

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

Sincerely,



Sheldon L. Hitchcock  
HSE Coordinator  
[slhitchcock@concho.com](mailto:slhitchcock@concho.com)

Enclosed:

Appendix I: Site Diagram  
Appendix II: Groundwater Data  
Appendix III: Initial C-141 (Copy)  
Appendix IV: Analytical Reports and Chain-of-Custody Forms

# APPENDIX I



# Gettysburg State Com #002H



# 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-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">CP 00556 POD1</a>	CP	LE		4	4	3	08	23S	34E	641762	3576206	1646	497	255	242

Average Depth to Water: **255 feet**

Minimum Depth: **255 feet**

Maximum Depth: **255 feet**

Record Count: 1

### Basin/County Search:

**County:** Lea

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 643364

**Northing (Y):** 3575822

**Radius:** 2000

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# APPENDIX III

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC [OGRID] 229137	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: GETTYSBURG STATE COM #002H	Facility Type: Well

Surface Owner: Private	Mineral Owner: State	API No. 30-025-40874
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LOCATION OF RELEASE

Unit Letter C	Section 16	Township 23S	Range 34E	Feet from the 330'	North/South Line North	Feet from the 1980'	East/West Line West	County Lea
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Latitude 32.310400 Longitude - 103.476257

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 20 bbls pw	Volume Recovered: 0 bbls pw
Source of Release: Flowline/Pipeline	Date and Hour of Occurrence: 9-23-2017 10:00 am	Date and Hour of Discovery: 9-23-2017 10:00 am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

**RECEIVED**

By Olivia Yu at 1:24 pm, Sep 26, 2017

Describe Cause of Problem and Remedial Action Taken.\*



The release occurred when a hole developed in the poly flowline. The damaged portion of the flowline has been removed and replaced.

Describe Area Affected and Cleanup Action Taken.\*

The release occurred alongside the lease road in the pasture. The line was isolated until repaired. 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.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Dakota Neel	Approval Date: 9/26/2017	Expiration Date:
Title: HSE Coordinator	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
E-mail Address: dneel2@concho.com		
Date: September 25, 2017 Phone: 575-746-2010		

\* Attach Additional Sheets If Necessary

1RP-4823

nOY1726956579

pOY1726957135

# APPENDIX IV

# **Analytical Report 566223**

**for  
COG Operating, LLC**

**Project Manager: Sheldon Hitchcock**

**Gettysburg St. Com #2H**

**30-OCT-17**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):

Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)

Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



30-OCT-17

Project Manager: **Sheldon Hitchcock**  
**COG Operating, LLC**  
600 W Illinois  
Midland, TX 79701

Reference: XENCO Report No(s): **566223**  
**Gettysburg St. Com #2H**  
Project Address: C-16-23S-34E

**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) 566223. 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. 566223 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

**Kelsey Brooks**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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



## Sample Cross Reference 566223



### COG Operating, LLC, Midland, TX

Gettysburg St. Com #2H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 Surface	S	10-12-17 12:00	0	566223-001
T-1 1'	S	10-12-17 12:02	1	566223-002
T-1 2'	S	10-12-17 12:04	2	566223-003
T-1 3'	S	10-12-17 12:06	3	566223-004
T-1 4'	S	10-12-17 12:08	4	566223-005
T-1 9'	S	10-12-17 12:15	9	566223-006
T-2 Surface	S	10-12-17 12:20	0	566223-007
T-2 1'	S	10-12-17 12:22	1	566223-008
T-2 2'	S	10-12-17 12:24	2	566223-009
T-2 3'	S	10-12-17 12:26	3	566223-010
T-2 4'	S	10-12-17 12:28	4	566223-011
T-2 5'	S	10-12-17 12:30	5	566223-012
T-2 6'	S	10-12-17 12:32	6	566223-013
T-2 8'	S	10-12-17 12:36	8	566223-014
T-2 13'	S	10-12-17 12:45	13	566223-015
T-3 Surface	S	10-12-17 13:00	0	566223-016
T-3 1'	S	10-12-17 13:02	1	566223-017
T-3 2'	S	10-12-17 13:04	2	566223-018
T-3 3'	S	10-12-17 13:06	3	566223-019
T-3 4'	S	10-12-17 13:08	4	566223-020
T-3 6'	S	10-12-17 13:10	6	566223-021
T-3 8'	S	10-12-17 13:12	8	566223-022
T-3 10'	S	10-12-17 13:14	10	566223-023
T-3 12'	S	10-12-17 13:16	12	566223-024
T-3 14'	S	10-12-17 13:18	14	566223-025
T-3 16'	S	10-12-17 13:20	16	566223-026
T-3 18'	S	10-12-17 13:22	18	566223-027
T-4 Surface	S	10-12-17 13:30	0	566223-028
T-4 1'	S	10-12-17 13:32	1	566223-029
T-4 2'	S	10-12-17 13:34	2	566223-030
T-4 3'	S	10-12-17 13:36	3	566223-031
T-4 4'	S	10-12-17 13:38	4	566223-032
T-4 9'	S	10-12-17 13:45	9	566223-033
N. Surface	S	10-12-17 14:00	0	566223-034
S. Surface	S	10-12-17 14:10	0	566223-036
W. Surface	S	10-12-17 14:20	0	566223-038
E. Surface	S	10-12-17 14:30	0	566223-040
N. 1'	S	10-12-17 14:02	1	Not Analyzed
S. 1'	S	10-12-17 14:12	1	Not Analyzed
W. 1'	S	10-12-17 14:22	1	Not Analyzed
E. 1'	S	10-12-17 14:32	1	Not Analyzed



## CASE NARRATIVE

*Client Name: COG Operating, LLC*

*Project Name: Gettysburg St. Com #2H*

Project ID:

Work Order Number(s): 566223

Report Date: 30-OCT-17

Date Received: 10/19/2017

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**Sample receipt non conformances and comments:**

566223-035, -037, -039, -041 put on hold per Sheldon Hitchcock e-mail 10/25/17-- KB

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3031730 BTEX by EPA 8021B

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





# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	566223-001	566223-002	566223-003	566223-004	566223-005	566223-006
	<i>Field Id:</i>	T-1 Surface	T-1 1'	T-1 2'	T-1 3'	T-1 4'	T-1 9'
	<i>Depth:</i>	0-	1-	2-	3-	4-	9-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-12-17 12:00	Oct-12-17 12:02	Oct-12-17 12:04	Oct-12-17 12:06	Oct-12-17 12:08	Oct-12-17 12:15
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Oct-25-17 08:45	Oct-25-17 08:45				
	<i>Analyzed:</i>	Oct-25-17 10:58	Oct-25-17 11:22				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
	Benzene	<0.00200 0.00200	<0.00201 0.00201				
	Toluene	<0.00200 0.00200	<0.00201 0.00201				
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201				
m,p-Xylenes		<0.00399 0.00399	<0.00402 0.00402				
o-Xylene		<0.00200 0.00200	<0.00201 0.00201				
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201				
Total BTEX		<0.00200 0.00200	<0.00201 0.00201				
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Oct-25-17 15:20	Oct-25-17 15:20	Oct-25-17 15:20	Oct-25-17 15:20	Oct-26-17 09:00	Oct-26-17 09:00
	<i>Analyzed:</i>	Oct-26-17 12:41	Oct-26-17 12:48	Oct-26-17 12:55	Oct-26-17 13:01	Oct-26-17 17:26	Oct-26-17 17:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	1100 24.5	998 4.92	929 4.92	36.2 4.98	5.71 4.97	<4.96 4.96
<b>TPH by Texas1005</b>	<i>Extracted:</i>	Oct-25-17 08:00	Oct-25-17 08:00				
	<i>Analyzed:</i>	Oct-25-17 10:30	Oct-25-17 11:30				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
	C6-C12 Range Hydrocarbons	<25.0 25.0	<24.9 24.9				
	C12-C28 Range Hydrocarbons	<25.0 25.0	<24.9 24.9				
C28-C35 Range Hydrocarbons		<25.0 25.0	<24.9 24.9				
Total TPH		<25.0 25.0	<24.9 24.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	566223-007	566223-008	566223-009	566223-010	566223-011	566223-012
	<i>Field Id:</i>	T-2 Surface	T-2 1'	T-2 2'	T-2 3'	T-2 4'	T-2 5'
	<i>Depth:</i>	0-	1-	2-	3-	4-	5-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-12-17 12:20	Oct-12-17 12:22	Oct-12-17 12:24	Oct-12-17 12:26	Oct-12-17 12:28	Oct-12-17 12:30
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Oct-25-17 08:45	Oct-25-17 08:45				
	<i>Analyzed:</i>	Oct-25-17 11:44	Oct-25-17 12:02				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		<0.00202 0.00202	<0.00200 0.00200				
Toluene		<0.00202 0.00202	<0.00200 0.00200				
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200				
m,p-Xylenes		<0.00404 0.00404	<0.00401 0.00401				
o-Xylene		<0.00202 0.00202	<0.00200 0.00200				
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200				
Total BTEX		<0.00202 0.00202	<0.00200 0.00200				
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00
	<i>Analyzed:</i>	Oct-26-17 17:53	Oct-26-17 18:00	Oct-26-17 18:06	Oct-26-17 18:27	Oct-26-17 18:34	Oct-26-17 18:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23.4 4.94	1430 24.8	4480 49.5	4360 49.1	1250 4.97	1260 4.99
<b>TPH by Texas1005</b>	<i>Extracted:</i>	Oct-25-17 08:00	Oct-25-17 08:00				
	<i>Analyzed:</i>	Oct-25-17 11:50	Oct-25-17 12:11				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
C6-C12 Range Hydrocarbons		<24.9 24.9	<24.9 24.9				
C12-C28 Range Hydrocarbons		<24.9 24.9	<24.9 24.9				
C28-C35 Range Hydrocarbons		<24.9 24.9	<24.9 24.9				
Total TPH		<24.9 24.9	<24.9 24.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	566223-013	566223-014	566223-015	566223-016	566223-017	566223-018
	<i>Field Id:</i>	T-2 6'	T-2 8'	T-2 13'	T-3 Surface	T-3 1'	T-3 2'
	<i>Depth:</i>	6-	8-	13-	0-	1-	2-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-12-17 12:32	Oct-12-17 12:36	Oct-12-17 12:45	Oct-12-17 13:00	Oct-12-17 13:02	Oct-12-17 13:04
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>				Oct-25-17 08:45	Oct-25-17 08:45	
	<i>Analyzed:</i>				Oct-25-17 14:50	Oct-25-17 12:41	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
Benzene					<0.00341 0.00341	<0.00200 0.00200	
Toluene					<0.00341 0.00341	<0.00200 0.00200	
Ethylbenzene					<0.00341 0.00341	<0.00200 0.00200	
m,p-Xylenes					<0.00683 0.00683	<0.00401 0.00401	
o-Xylene					<0.00341 0.00341	<0.00200 0.00200	
Total Xylenes					<0.00341 0.00341	<0.00200 0.00200	
Total BTEX					<0.00341 0.00341	<0.00200 0.00200	
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00
	<i>Analyzed:</i>	Oct-26-17 18:47	Oct-26-17 18:54	Oct-26-17 19:01	Oct-26-17 19:21	Oct-26-17 19:28	Oct-26-17 19:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		976 4.92	90.9 5.00	19.0 4.97	7.62 4.90	602 4.99	4700 49.7
<b>TPH by Texas1005</b>	<i>Extracted:</i>				Oct-25-17 08:00	Oct-25-17 08:00	
	<i>Analyzed:</i>				Oct-25-17 12:31	Oct-25-17 12:50	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
C6-C12 Range Hydrocarbons					<25.0 25.0	<25.0 25.0	
C12-C28 Range Hydrocarbons					<25.0 25.0	<25.0 25.0	
C28-C35 Range Hydrocarbons					<25.0 25.0	<25.0 25.0	
Total TPH					<25.0 25.0	<25.0 25.0	

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	566223-019	566223-020	566223-021	566223-022	566223-023	566223-024
	<i>Field Id:</i>	T-3 3'	T-3 4'	T-3 6'	T-3 8'	T-3 10'	T-3 12'
	<i>Depth:</i>	3-	4-	6-	8-	10-	12-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-12-17 13:06	Oct-12-17 13:08	Oct-12-17 13:10	Oct-12-17 13:12	Oct-12-17 13:14	Oct-12-17 13:16
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00	Oct-26-17 09:00
	<i>Analyzed:</i>	Oct-26-17 19:55	Oct-26-17 20:02	Oct-26-17 20:09	Oct-26-17 20:15	Oct-26-17 20:22	Oct-26-17 20:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5760 49.4	5570 49.1	1760 24.7	780 4.94	1710 25.0	1040 4.92

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	566223-025	566223-026	566223-027	566223-028	566223-029	566223-030
	<i>Field Id:</i>	T-3 14'	T-3 16'	T-3 18'	T-4 Surface	T-4 1'	T-4 2'
	<i>Depth:</i>	14-	16-	18-	0-	1-	2-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-12-17 13:18	Oct-12-17 13:20	Oct-12-17 13:22	Oct-12-17 13:30	Oct-12-17 13:32	Oct-12-17 13:34
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>				Oct-25-17 08:45	Oct-25-17 08:45	
	<i>Analyzed:</i>				Oct-25-17 13:02	Oct-25-17 13:23	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
Benzene					<0.00202 0.00202	<0.00202 0.00202	
Toluene					<0.00202 0.00202	<0.00202 0.00202	
Ethylbenzene					<0.00202 0.00202	<0.00202 0.00202	
m,p-Xylenes					<0.00404 0.00404	<0.00404 0.00404	
o-Xylene					<0.00202 0.00202	<0.00202 0.00202	
Total Xylenes					<0.00202 0.00202	<0.00202 0.00202	
Total BTEX					<0.00202 0.00202	<0.00202 0.00202	
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05
	<i>Analyzed:</i>	Oct-26-17 21:30	Oct-26-17 21:10	Oct-26-17 21:37	Oct-26-17 21:43	Oct-26-17 21:50	Oct-26-17 22:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1720 25.0	133 5.00	192 4.94	<5.00 5.00	<4.96 4.96	<4.90 4.90
<b>TPH by Texas1005</b>	<i>Extracted:</i>				Oct-25-17 08:00	Oct-25-17 08:00	
	<i>Analyzed:</i>				Oct-25-17 13:10	Oct-25-17 13:30	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
C6-C12 Range Hydrocarbons					<24.9 24.9	<24.9 24.9	
C12-C28 Range Hydrocarbons					<24.9 24.9	<24.9 24.9	
C28-C35 Range Hydrocarbons					<24.9 24.9	<24.9 24.9	
Total TPH					<24.9 24.9	<24.9 24.9	

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	566223-031	566223-032	566223-033	566223-034	566223-036	566223-038
	<i>Field Id:</i>	T-4 3'	T-4 4'	T-4 9'	N. Surface	S. Surface	W. Surface
	<i>Depth:</i>	3-	4-	9-	0-	0-	0-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-12-17 13:36	Oct-12-17 13:38	Oct-12-17 13:45	Oct-12-17 14:00	Oct-12-17 14:10	Oct-12-17 14:20
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05	Oct-26-17 14:05
	<i>Analyzed:</i>	Oct-26-17 22:17	Oct-26-17 22:24	Oct-26-17 22:31	Oct-26-17 22:38	Oct-26-17 22:44	Oct-26-17 23:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		12.7 4.94	<4.94 4.94	<4.95 4.95	<4.94 4.94	<4.95 4.95	<4.91 4.91

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 566223

COG Operating, LLC, Midland, TX

Project Name: Gettysburg St. Com #2H



Project Id:

Contact: Sheldon Hitchcock

Project Location: C-16-23S-34E

Date Received in Lab: Thu Oct-19-17 11:45 am

Report Date: 30-OCT-17

Project Manager: Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b>	566223-040					
	<b>Field Id:</b>	E. Surface					
	<b>Depth:</b>	0-					
	<b>Matrix:</b>	SOIL					
	<b>Sampled:</b>	Oct-12-17 14:30					
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Oct-26-17 14:05					
	<b>Analyzed:</b>	Oct-26-17 23:12					
	<b>Units/RL:</b>	mg/kg RL					
Chloride		<4.93 4.93					

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Kelsey Brooks  
Project Manager



- 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      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

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

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(432) 563-1800	(432) 563-1713
(602) 437-0330	



## Form 2 - Surrogate Recoveries

Project Name: Gettysburg St. Com #2H

Work Orders : 566223,

Lab Batch #: 3031508

Sample: 566223-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 10:30

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	51.5	49.9	103	70-130	
1-Chlorooctane	111	99.8	111	70-130	

Lab Batch #: 3031730

Sample: 566223-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 10:58

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0358	0.0300	119	80-120	

Lab Batch #: 3031730

Sample: 566223-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 11:22

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3031508

Sample: 566223-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 11:30

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	49.1	49.9	98	70-130	
1-Chlorooctane	103	99.7	103	70-130	

Lab Batch #: 3031730

Sample: 566223-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 11:44

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Gettysburg St. Com #2H

Work Orders : 566223,

Lab Batch #: 3031508

Sample: 566223-007 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 11:50

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	47.7	49.9	96	70-130	
1-Chlorooctane	96.7	99.7	97	70-130	

Lab Batch #: 3031730

Sample: 566223-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 12:02

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

Lab Batch #: 3031508

Sample: 566223-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 12:11

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	47.2	49.8	95	70-130	
1-Chlorooctane	95.0	99.6	95	70-130	

Lab Batch #: 3031508

Sample: 566223-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 12:31

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	49.8	49.9	100	70-130	
1-Chlorooctane	102	99.8	102	70-130	

Lab Batch #: 3031730

Sample: 566223-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 12:41

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0359	0.0300	120	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Gettysburg St. Com #2H

Work Orders : 566223,

Lab Batch #: 3031508

Sample: 566223-017 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 12:50

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	47.5	50.0	95	70-130	
1-Chlorooctane	96.1	100	96	70-130	

Lab Batch #: 3031730

Sample: 566223-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 13:02

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	80-120	

Lab Batch #: 3031508

Sample: 566223-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 13:10

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	46.7	49.8	94	70-130	
1-Chlorooctane	95.7	99.6	96	70-130	

Lab Batch #: 3031730

Sample: 566223-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 13:23

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0355	0.0300	118	80-120	

Lab Batch #: 3031508

Sample: 566223-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 13:30

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	46.9	49.9	94	70-130	
1-Chlorooctane	95.0	99.7	95	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Gettysburg St. Com #2H

Work Orders : 566223,

Lab Batch #: 3031730

Sample: 566223-016 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 14:50

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0351	0.0300	117	80-120	

Lab Batch #: 3031508

Sample: 7633266-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/17 09:32

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	57.3	50.0	115	70-130	
1-Chlorooctane	118	100	118	70-130	

Lab Batch #: 3031730

Sample: 7633242-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/17 10:20

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0355	0.0300	118	80-120	

Lab Batch #: 3031730

Sample: 7633242-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/17 08:27

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 3031508

Sample: 7633266-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/17 09:52

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	54.3	50.0	109	70-130	
1-Chlorooctane	117	100	117	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Gettysburg St. Com #2H

Work Orders : 566223,

Lab Batch #: 3031730

Sample: 7633242-1-BSD / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/17 08:46

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 3031508

Sample: 7633266-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/17 10:11

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	48.6	50.0	97	70-130	
1-Chlorooctane	102	100	102	70-130	

Lab Batch #: 3031730

Sample: 566207-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 09:04

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0346	0.0300	115	80-120	

Lab Batch #: 3031508

Sample: 566223-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 10:50

### SURROGATE RECOVERY STUDY

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	55.2	50.0	110	70-130	
1-Chlorooctane	95.4	99.9	95	70-130	

Lab Batch #: 3031730

Sample: 566207-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 09:22

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0344	0.0300	115	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Gettysburg St. Com #2H

Work Orders : 566223,

Lab Batch #: 3031508

Sample: 566223-001 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/25/17 11:10

### SURROGATE RECOVERY STUDY

TPH by Texas1005  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	45.7	50.0	91	70-130	
1-Chlorooctane	101	99.9	101	70-130	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.





# BS / BSD Recoveries



Project Name: Gettysburg St. Com #2H

Work Order #: 566223

Project ID:

Analyst: ALJ

Date Prepared: 10/25/2017

Date Analyzed: 10/25/2017

Lab Batch ID: 3031730

Sample: 7633242-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.0998	0.0831	83	0.100	0.0805	81	3	70-130	35	
Toluene	<0.00200	0.0998	0.0985	99	0.100	0.0928	93	6	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.103	103	0.100	0.0978	98	5	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.204	102	0.201	0.192	96	6	70-135	35	
o-Xylene	<0.00200	0.0998	0.100	100	0.100	0.0948	95	5	71-133	35	

Analyst: MNV

Date Prepared: 10/25/2017

Date Analyzed: 10/26/2017

Lab Batch ID: 3031640

Sample: 7633224-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<5.00	250	242	97	250	242	97	0	90-110	20	

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

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# BS / BSD Recoveries



Project Name: Gettysburg St. Com #2H

Work Order #: 566223

Project ID:

Analyst: MNV

Date Prepared: 10/26/2017

Date Analyzed: 10/26/2017

Lab Batch ID: 3031643

Sample: 7633226-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	245	98	250	243	97	1	90-110	20	

Analyst: MNV

Date Prepared: 10/26/2017

Date Analyzed: 10/26/2017

Lab Batch ID: 3031643

Sample: 7633295-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	242	97	250	241	96	0	90-110	20	

Analyst: ARM

Date Prepared: 10/25/2017

Date Analyzed: 10/25/2017

Lab Batch ID: 3031508

Sample: 7633266-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Range Hydrocarbons	<25.0	1000	1020	102	1000	942	94	8	75-125	25	
C12-C28 Range Hydrocarbons	<25.0	1000	1070	107	1000	986	99	8	75-125	25	

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

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Gettysburg St. Com #2H

Work Order # : 566223

Project ID:

Lab Batch ID: 3031730

QC- Sample ID: 566207-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/25/2017

Date Prepared: 10/25/2017

Analyst: ALJ

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.103	102	0.101	0.102	101	1	70-130	35	
Toluene	<0.00202	0.101	0.103	102	0.101	0.0982	97	5	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0895	89	0.101	0.0841	83	6	71-129	35	
m,p-Xylenes	<0.00403	0.202	0.177	88	0.202	0.166	82	6	70-135	35	
o-Xylene	<0.00202	0.101	0.0845	84	0.101	0.0788	78	7	71-133	35	

Lab Batch ID: 3031640

QC- Sample ID: 566219-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2017

Date Prepared: 10/25/2017

Analyst: MNV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1.99	99.6	101	101	99.6	101	101	0	90-110	20	

Lab Batch ID: 3031640

QC- Sample ID: 566220-008 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2017

Date Prepared: 10/25/2017

Analyst: MNV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	9.02	247	258	101	247	261	102	1	90-110	20	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
Relative Percent Difference  $RPD = 200 \times |(C-F)/(C+F)|$

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

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

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



# Form 3 - MS / MSD Recoveries



Project Name: Gettysburg St. Com #2H

Work Order # : 566223

Project ID:

Lab Batch ID: 3031643

QC- Sample ID: 566223-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2017

Date Prepared: 10/26/2017

Analyst: MNV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	5.71	249	267	105	249	267	105	0	90-110	20	

Lab Batch ID: 3031643

QC- Sample ID: 566223-015 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2017

Date Prepared: 10/26/2017

Analyst: MNV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	19.0	249	272	102	249	269	100	1	90-110	20	

Lab Batch ID: 3031665

QC- Sample ID: 566223-026 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2017

Date Prepared: 10/26/2017

Analyst: MNV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	133	250	370	95	250	374	96	1	90-110	20	

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

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

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

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



# Form 3 - MS / MSD Recoveries



Project Name: Gettysburg St. Com #2H

Work Order # : 566223

Project ID:

Lab Batch ID: 3031665

QC- Sample ID: 566223-036 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2017

Date Prepared: 10/26/2017

Analyst: MNV

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.95	248	248	100	248	251	101	1	90-110	20	

Lab Batch ID: 3031508

QC- Sample ID: 566223-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/25/2017

Date Prepared: 10/25/2017

Analyst: ARM

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Range Hydrocarbons	<25.0	999	998	100	999	888	89	12	75-125	25	
C12-C28 Range Hydrocarbons	<25.0	999	1020	102	999	926	93	10	75-125	25	

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.





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Stafford, Texas (281-240-4200)  
Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)  
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

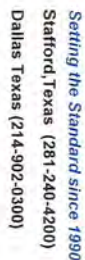
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# CHAIN OF CUSTODY

Page 1 of 5

Client / Reporting Information		Project Information		Xenco Quote #		Xenco Job #													
Company Name / Branch: COG Operating, LLC		Project Name/Number: Gellysburg St. Com #2H																	
Company Address: 2407 Pecora Ave. Artesia NM 88210		Project Location: C-16-235-34E																	
Email: sheldohitchcock@concho.com Phone No: 575-703-4475 dneel2@concho.com; aaleb@concho.com; haskeel@concho.com		Invoice To: COG Operating, LLC Attn: Robert McNeill 600 W. Illinois Ave. Midland Tx, 79701																	
Project Contact: Sheldon Hitchcock		PO Number:																	
Sampler's Name: Sheldon Hitchcock																			
No.	Field ID / Point of Collection	Collection	Number of preserved bottles	Analytical Information		Matrix Codes													
		Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	TPH EXTENDED	BTEX	CHLORIDES	Field Comments		
1	T-1 Surface	0'	10/12/17	12:00	S	1													
2	T-1 1'	1'		12:02	S	1													
3	T-1 2'	2'		12:04	S	1													
4	T-1 3'	3'		12:04	S	1													
5	T-1 4'	4'		12:08	S	1													
6	T-1 4'	4'		12:15	S	1													
7	T-2 Surface	0'		12:26	S	1													
8	T-2 1'	1'		12:24	S	1													
9	T-2 2'	2'		12:24	S	1													
10	T-2 3'	3'		12:24	S	1													
Turnaround Time (Business days)																			
<input type="checkbox"/> Same Day TAT		<input type="checkbox"/> 5 Day TAT																	
<input type="checkbox"/> Next Day EMERGENCY		<input checked="" type="checkbox"/> 7 Day TAT																	
<input type="checkbox"/> 2 Day EMERGENCY		<input type="checkbox"/> Contract TAT																	
<input type="checkbox"/> 3 Day EMERGENCY																			
TAT Starts Day received by Lab, if received by 5:00 pm																			
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:		Custody Seal #		Preserved where applicable		On Ice		Cooler Temp.	Thermo. Corr. Factor
1. Sheldon Hitchcock		10/12/17 12:00		Sheldon Hitchcock		10-15-17 10:15		3. Sheldon Hitchcock		10-15-17 11:55		4						13C	
Relinquished by:		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:									
3																			
Relinquished by:		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:									
5																			

Notes:  
Temp: 3.2  
CF: (0.6: -0.2°C)  
(6-23: +0.2°C)  
Corrected Temp: 3  
IR ID: R-8



## Page 2 of 5

Phoenix, Arizona (480-355-0900)

~~566223~~ 566223

**Notice:** Notice. Signature of this document and reliance on samples constitutes a valid purchase order from client company to Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xeno 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 Xeno. A minimum charge of \$75 will be applied to each project. Xeno's liability will be limited to the cost of samples. Any samples received by Xeno but not analyzed will be invoiced at \$5 per sample. Those terms will be enforced unless previously negotiated under a fully executed client contract.



Page 3 of 5

Phoenix, Arizona (480-355-0900)

566223

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Stafford, Texas (281-240-4200)  
Dallas Texas (214-902-0300)

# CHAIN OF CUSTODY

Page 4 of 5

San Antonio, Texas (210-509-3334)  
Midland, Texas (432-704-5251)

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Phoenix, Arizona (480-355-0900)

560623

Xenco Quote #

Xenco Job #

560623

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes											
Company Name / Branch: COG Operating, LLC		Project Name/Number: Gettysburg St. Com #2H															
Company Address: 2407 Pecos Ave. Artesia NM 88210		Project Location: C-16-235-JAE															
Email: slhitchcock@concho.com Phone No: 575-703-6475 dnee2@concho.com; alleb@concho.com; thaskell@concho.com		Invoice To: COG Operating, LLC Attn: Robert McNeill 600 W. Illinois Ave. Midland Tx, 79701															
Project Contact: Sheldon Hitchcock		PO Number:															
Sampler's Name: Sheldon Hitchcock																	
No.	Field ID / Point of Collection	Collection	Number of preserved bottles						Notes								
		Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MeOH	TPH EXTENDED	BTEX	CHLORIDES	Field Comments
1	T-43'	3	10/24/17	1:36	S	1											
2	T-44'	4		1:38	S	1											
3	T-44'	4		1:45	S	1											
4	N. 54' Face	0		2:00	S	1											
5	N. 1'	1		2:02	S	1											
6	S. 54' Face	0		2:10	S	1											
7	S. 1'	1		2:12	S	1											
8	W. 54' Face	0		2:20	S	1											
9	W. 1'	1		2:22	S	1											
10	E. 54' Face	0		2:30	S	1											
Turnaround Time (Business days)																	
<input type="checkbox"/> Same Day TAT		<input type="checkbox"/> 5 Day TAT		<input type="checkbox"/> Level II Std QC		<input type="checkbox"/> Level IV (Full Data Pkg / raw data)											
<input type="checkbox"/> Next Day EMERGENCY		<input checked="" type="checkbox"/> 7 Day TAT		<input type="checkbox"/> Level III Std QC + Forms		<input type="checkbox"/> TRRP Level IV											
<input type="checkbox"/> 2 Day EMERGENCY		<input type="checkbox"/> Contract TAT		<input type="checkbox"/> Level 3 (CLP Forms)		<input type="checkbox"/> UST / RG 411											
<input type="checkbox"/> 3 Day EMERGENCY				<input type="checkbox"/> TRRP Checklist													
TAT Starts Day received by Lab, if received by 5:00 pm																	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
Relinquished by Sample:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:					
Sheldon Hitchcock		10/24/17 10:00		Sheldon Hitchcock		10-19-17 10:01		Sheldon Hitchcock		10-15-17 11:10		Sheldon Hitchcock					
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:					
3				3				4				4					
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:					
5				5				5				5					
Preserved where applicable																	
On Ice																	
Cooler Temp. 13C																	
Thermo. Corr. Factor																	

Temp: 3.2  
CF: (0-6: -0.2°C)  
(6-23: +0.2°C)  
Corrected Temp: 3

IR ID: R-8

Notes:

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





Phoenix, Arizona (480-355-0900)

566223

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenico, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenico 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 Xenico. A minimum charge of \$75 will be applied to each project. Xenico's liability will be limited to the cost of samples. Any samples received by Xenico but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously annotated under a fully executed client contract.



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: COG Operating, LLC

Date/ Time Received: 10/19/2017 11:45:00 AM

Work Order #: 566223

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)?	13.2	
#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?	Yes	566223-037 (S 1') Missing-- not sampled
#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#:

### NonConformance:

566223-037 (S 1') Missing-- not sampled

### Corrective Action Taken:

### Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by : \_\_\_\_\_ DateTime : \_\_\_\_\_

Checklist completed by:

Connie Hernandez

Date: 10/23/2017

Checklist reviewed by:

Kelsey Brooks

Date: 10/23/2017