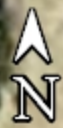


Table 1
COG Operating LLC.
Sopapilla State #001H 4/22/19 1RP-5455
Lea County, New Mexico

| Sample ID | Sample Date | TPH (mg/kg) | | | | | | | Benzene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|-------------|-------------|-------------|-----|------|-------|-------|-----|-------|--------------------|-----------------------|---------------------|
| | | GRO | DRO | MRO | Total | GRO | DRO | Total | | | |
| AH-1 0-1' | 5/29/2019 | <15.0 | 301 | 52.8 | 354 | <15.0 | 301 | 301 | <0.00200 | <0.00200 | 875 |
| AH-1 1-1.5' | 5/29/2019 | <15.0 | 255 | 61.0 | 316 | <15.0 | 255 | 255 | <0.00201 | <0.00201 | 454 |

Legend

- AH-1
- AOI





Certificate of Analysis Summary 626281

COG Operating LLC, Artesia, NM

Project Name: Sopapilla State 1H (4-22-19)



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

Date Received in Lab: Mon Jun-03-19 12:00 pm
Report Date: 07-JUN-19
Project Manager: Jessica Kramer

| <i>Analysis Requested</i> | <i>Lab Id:</i> | 626281-001 | 626281-002 | | | | |
|------------------------------------|-------------------|------------------|------------------|--|--|--|--|
| | <i>Field Id:</i> | AH-1 0-1 | AH-1 1-1.5' | | | | |
| | <i>Depth:</i> | | | | | | |
| | <i>Matrix:</i> | SOIL | SOIL | | | | |
| | <i>Sampled:</i> | May-29-19 00:00 | May-29-19 00:00 | | | | |
| BTEX by EPA 8021B | <i>Extracted:</i> | Jun-06-19 08:45 | Jun-06-19 08:45 | | | | |
| | <i>Analyzed:</i> | Jun-07-19 05:00 | Jun-07-19 05:19 | | | | |
| | <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 | | | | |
| Chloride by EPA 300 | <i>Extracted:</i> | Jun-03-19 17:20 | Jun-03-19 17:20 | | | | |
| | <i>Analyzed:</i> | Jun-03-19 21:39 | Jun-03-19 21:44 | | | | |
| | <i>Units/RL:</i> | mg/kg RL | mg/kg RL | | | | |
| Chloride | | 875 4.96 | 454 5.00 | | | | |
| TPH By SW8015 Mod | <i>Extracted:</i> | Jun-05-19 14:00 | Jun-05-19 14:00 | | | | |
| | <i>Analyzed:</i> | Jun-05-19 23:47 | Jun-06-19 00:07 | | | | |
| | <i>Units/RL:</i> | mg/kg RL | mg/kg RL | | | | |
| Gasoline Range Hydrocarbons | | <15.0 15.0 | <15.0 15.0 | | | | |
| Diesel Range Organics | | 301 15.0 | 255 15.0 | | | | |
| Motor Oil Range Hydrocarbons (MRO) | | 52.8 15.0 | 61.0 15.0 | | | | |
| Total TPH | | 354 15.0 | 316 15.0 | | | | |

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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 626281

for
COG Operating LLC

Project Manager: Ike Tavaréz
Sopapilla State 1H (4-22-19)

07-JUN-19

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07-JUN-19

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

Reference: XENCO Report No(s): **626281**
Sopapilla State 1H (4-22-19)
Project Address: Lea Co.NM

Ike Tavaréz:

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) 626281. 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. 626281 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 626281



COG Operating LLC, Artesia, NM

Sopapilla State 1H (4-22-19)

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|-------------|--------|----------------|--------------|---------------|
| AH-1 0-1 | S | 05-29-19 00:00 | | 626281-001 |
| AH-1 1-1.5' | S | 05-29-19 00:00 | | 626281-002 |



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Sopapilla State 1H (4-22-19)

Project ID:
Work Order Number(s): 626281

Report Date: 07-JUN-19
Date Received: 06/03/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3091568 BTEX by EPA 8021B

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

COG Operating LLC, Artesia, NM Sopapilla State 1H (4-22-19)

| | | |
|--|--------------------------------|-------------------------------|
| Sample Id: AH-1 0-1 | Matrix: Soil | Date Received: 06.03.19 12.00 |
| Lab Sample Id: 626281-001 | Date Collected: 05.29.19 00.00 | |
| Analytical Method: Chloride by EPA 300 | | Prep Method: E300P |
| Tech: CHE | | % Moisture: |
| Analyst: CHE | Date Prep: 06.03.19 17.20 | Basis: Wet Weight |
| Seq Number: 3091029 | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|-----------|------------|------------|------|-------|----------------|------|-----|
| Chloride | 16887-00-6 | 875 | 4.96 | mg/kg | 06.03.19 21.39 | | 1 |

| | |
|--------------------------------------|---------------------------|
| Analytical Method: TPH By SW8015 Mod | Prep Method: TX1005P |
| Tech: ARM | % Moisture: |
| Analyst: ARM | Date Prep: 06.05.19 14.00 |
| Seq Number: 3091358 | Basis: Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|------------------------------------|------------|-------------|------|-------|----------------|------|-----|
| Gasoline Range Hydrocarbons | PHC610 | <15.0 | 15.0 | mg/kg | 06.05.19 23.47 | U | 1 |
| Diesel Range Organics | C10C28DRO | 301 | 15.0 | mg/kg | 06.05.19 23.47 | | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | 52.8 | 15.0 | mg/kg | 06.05.19 23.47 | | 1 |
| Total TPH | PHC635 | 354 | 15.0 | mg/kg | 06.05.19 23.47 | | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|----------------|------------|------------|-------|--------|----------------|------|
| 1-Chlorooctane | 111-85-3 | 98 | % | 70-135 | 06.05.19 23.47 | |
| o-Terphenyl | 84-15-1 | 103 | % | 70-135 | 06.05.19 23.47 | |

COG Operating LLC, Artesia, NM

Sopapilla State 1H (4-22-19)

Sample Id: **AH-1 0-1**
 Lab Sample Id: 626281-001

Matrix: Soil
 Date Collected: 05.29.19 00.00

Date Received: 06.03.19 12.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.06.19 08.45

Basis: Wet Weight

Seq Number: 3091568

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|----------------------|-------------------|----------|-----------------|--------------|----------------|----------------------|-------------|
| Benzene | 71-43-2 | <0.00200 | 0.00200 | mg/kg | 06.07.19 05.00 | U | 1 |
| Toluene | 108-88-3 | <0.00200 | 0.00200 | mg/kg | 06.07.19 05.00 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00200 | 0.00200 | mg/kg | 06.07.19 05.00 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00399 | 0.00399 | mg/kg | 06.07.19 05.00 | U | 1 |
| o-Xylene | 95-47-6 | <0.00200 | 0.00200 | mg/kg | 06.07.19 05.00 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00200 | 0.00200 | mg/kg | 06.07.19 05.00 | U | 1 |
| Total BTEX | | <0.00200 | 0.00200 | mg/kg | 06.07.19 05.00 | U | 1 |
| | | | % | | | | |
| Surrogate | Cas Number | | Recovery | Units | Limits | Analysis Date | Flag |
| 1,4-Difluorobenzene | 540-36-3 | | 96 | % | 70-130 | 06.07.19 05.00 | |
| 4-Bromofluorobenzene | 460-00-4 | | 110 | % | 70-130 | 06.07.19 05.00 | |

COG Operating LLC, Artesia, NM Sopapilla State 1H (4-22-19)

| | | |
|--|--------------------------------|-------------------------------|
| Sample Id: AH-1 1-1.5' | Matrix: Soil | Date Received: 06.03.19 12.00 |
| Lab Sample Id: 626281-002 | Date Collected: 05.29.19 00.00 | |
| Analytical Method: Chloride by EPA 300 | | Prep Method: E300P |
| Tech: CHE | | % Moisture: |
| Analyst: CHE | Date Prep: 06.03.19 17.20 | Basis: Wet Weight |
| Seq Number: 3091029 | | |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|-----------|------------|------------|------|-------|----------------|------|-----|
| Chloride | 16887-00-6 | 454 | 5.00 | mg/kg | 06.03.19 21.44 | | 1 |

| | |
|--------------------------------------|---------------------------|
| Analytical Method: TPH By SW8015 Mod | Prep Method: TX1005P |
| Tech: ARM | % Moisture: |
| Analyst: ARM | Date Prep: 06.05.19 14.00 |
| Seq Number: 3091358 | Basis: Wet Weight |

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|------------------------------------|------------|-------------|------|-------|----------------|------|-----|
| Gasoline Range Hydrocarbons | PHC610 | <15.0 | 15.0 | mg/kg | 06.06.19 00.07 | U | 1 |
| Diesel Range Organics | C10C28DRO | 255 | 15.0 | mg/kg | 06.06.19 00.07 | | 1 |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835 | 61.0 | 15.0 | mg/kg | 06.06.19 00.07 | | 1 |
| Total TPH | PHC635 | 316 | 15.0 | mg/kg | 06.06.19 00.07 | | 1 |

| Surrogate | Cas Number | % Recovery | Units | Limits | Analysis Date | Flag |
|----------------|------------|------------|-------|--------|----------------|------|
| 1-Chlorooctane | 111-85-3 | 97 | % | 70-135 | 06.06.19 00.07 | |
| o-Terphenyl | 84-15-1 | 98 | % | 70-135 | 06.06.19 00.07 | |

COG Operating LLC, Artesia, NM

Sopapilla State 1H (4-22-19)

Sample Id: **AH-1 1-1.5'**

Matrix: Soil

Date Received: 06.03.19 12.00

Lab Sample Id: 626281-002

Date Collected: 05.29.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 06.06.19 08.45

Basis: Wet Weight

Seq Number: 3091568

| Parameter | Cas Number | Result | RL | Units | Analysis Date | Flag | Dil |
|----------------------|-------------------|-----------------|--------------|---------------|----------------------|-------------|-----|
| Benzene | 71-43-2 | <0.00201 | 0.00201 | mg/kg | 06.07.19 05.19 | U | 1 |
| Toluene | 108-88-3 | <0.00201 | 0.00201 | mg/kg | 06.07.19 05.19 | U | 1 |
| Ethylbenzene | 100-41-4 | <0.00201 | 0.00201 | mg/kg | 06.07.19 05.19 | U | 1 |
| m,p-Xylenes | 179601-23-1 | <0.00402 | 0.00402 | mg/kg | 06.07.19 05.19 | U | 1 |
| o-Xylene | 95-47-6 | <0.00201 | 0.00201 | mg/kg | 06.07.19 05.19 | U | 1 |
| Total Xylenes | 1330-20-7 | <0.00201 | 0.00201 | mg/kg | 06.07.19 05.19 | U | 1 |
| Total BTEX | | <0.00201 | 0.00201 | mg/kg | 06.07.19 05.19 | U | 1 |
| | | | % | | | | |
| Surrogate | Cas Number | Recovery | Units | Limits | Analysis Date | Flag | |
| 1,4-Difluorobenzene | 540-36-3 | 95 | % | 70-130 | 06.07.19 05.19 | | |
| 4-Bromofluorobenzene | 460-00-4 | 107 | % | 70-130 | 06.07.19 05.19 | | |

- 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** Sample Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



COG Operating LLC
Sopapilla State 1H (4-22-19)

Analytical Method: Chloride by EPA 300

Seq Number: 3091029

MB Sample Id: 7679090-1-BLK

Matrix: Solid

LCS Sample Id: 7679090-1-BKS

Prep Method: E300P

Date Prep: 06.03.19

LCSD Sample Id: 7679090-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|-----------|-----------|--------------|------------|----------|-------------|-----------|--------|------|-----------|-------|----------------|------|
| Chloride | <5.00 | 250 | 237 | 95 | 237 | 95 | 90-110 | 0 | 20 | mg/kg | 06.03.19 21:29 | |

Analytical Method: Chloride by EPA 300

Seq Number: 3091029

Parent Sample Id: 626280-002

Matrix: Soil

MS Sample Id: 626280-002 S

Prep Method: E300P

Date Prep: 06.03.19

MSD Sample Id: 626280-002 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|-----------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|----------------|------|
| Chloride | <0.855 | 249 | 251 | 101 | 251 | 101 | 90-110 | 0 | 20 | mg/kg | 06.03.19 21:59 | |

Analytical Method: TPH By SW8015 Mod

Seq Number: 3091358

MB Sample Id: 7679341-1-BLK

Matrix: Solid

LCS Sample Id: 7679341-1-BKS

Prep Method: TX1005P

Date Prep: 06.05.19

LCSD Sample Id: 7679341-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|-----------------------------|-----------|--------------|------------|----------|-------------|-----------|--------|------|-----------|-------|----------------|------|
| Gasoline Range Hydrocarbons | <8.00 | 1000 | 1130 | 113 | 1110 | 111 | 70-135 | 2 | 20 | mg/kg | 06.05.19 16:35 | |
| Diesel Range Organics | <8.13 | 1000 | 1100 | 110 | 1090 | 109 | 70-135 | 1 | 20 | mg/kg | 06.05.19 16:35 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|----------------|---------|---------|----------|----------|-----------|-----------|--------|-------|----------------|
| 1-Chlorooctane | 96 | | 121 | | 120 | | 70-135 | % | 06.05.19 16:35 |
| o-Terphenyl | 97 | | 105 | | 104 | | 70-135 | % | 06.05.19 16:35 |

Analytical Method: TPH By SW8015 Mod

Seq Number: 3091358

Parent Sample Id: 626509-001

Matrix: Soil

MS Sample Id: 626509-001 S

Prep Method: TX1005P

Date Prep: 06.05.19

MSD Sample Id: 626509-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|-----------------------------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|----------------|------|
| Gasoline Range Hydrocarbons | 9.65 | 999 | 1150 | 114 | 1170 | 116 | 70-135 | 2 | 20 | mg/kg | 06.05.19 17:35 | |
| Diesel Range Organics | 15.4 | 999 | 1140 | 113 | 1150 | 114 | 70-135 | 1 | 20 | mg/kg | 06.05.19 17:35 | |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|----------------|---------|---------|----------|----------|--------|-------|----------------|
| 1-Chlorooctane | 124 | | 121 | | 70-135 | % | 06.05.19 17:35 |
| o-Terphenyl | 106 | | 111 | | 70-135 | % | 06.05.19 17:35 |

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



COG Operating LLC
Sopapilla State 1H (4-22-19)

Analytical Method: BTEX by EPA 8021B

Seq Number: 3091568

MB Sample Id: 7679452-1-BLK

Matrix: Solid

LCS Sample Id: 7679452-1-BKS

Prep Method: SW5030B

Date Prep: 06.06.19

LCSD Sample Id: 7679452-1-BSD

| Parameter | MB Result | Spike Amount | LCS Result | LCS %Rec | LCSD Result | LCSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|--------------|-----------|--------------|------------|----------|-------------|-----------|--------|------|-----------|-------|----------------|------|
| Benzene | <0.00198 | 0.0992 | 0.0969 | 98 | 0.104 | 103 | 70-130 | 7 | 35 | mg/kg | 06.06.19 20:31 | |
| Toluene | <0.00198 | 0.0992 | 0.0977 | 98 | 0.105 | 104 | 70-130 | 7 | 35 | mg/kg | 06.06.19 20:31 | |
| Ethylbenzene | <0.00198 | 0.0992 | 0.101 | 102 | 0.107 | 106 | 70-130 | 6 | 35 | mg/kg | 06.06.19 20:31 | |
| m,p-Xylenes | <0.00397 | 0.198 | 0.203 | 103 | 0.216 | 107 | 70-130 | 6 | 35 | mg/kg | 06.06.19 20:31 | |
| o-Xylene | <0.00198 | 0.0992 | 0.101 | 102 | 0.108 | 107 | 70-130 | 7 | 35 | mg/kg | 06.06.19 20:31 | |

| Surrogate | MB %Rec | MB Flag | LCS %Rec | LCS Flag | LCSD %Rec | LCSD Flag | Limits | Units | Analysis Date |
|----------------------|---------|---------|----------|----------|-----------|-----------|--------|-------|----------------|
| 1,4-Difluorobenzene | 113 | | 99 | | 99 | | 70-130 | % | 06.06.19 20:31 |
| 4-Bromofluorobenzene | 97 | | 96 | | 99 | | 70-130 | % | 06.06.19 20:31 |

Analytical Method: BTEX by EPA 8021B

Seq Number: 3091568

Parent Sample Id: 626043-001

Matrix: Soil

MS Sample Id: 626043-001 S

Prep Method: SW5030B

Date Prep: 06.06.19

MSD Sample Id: 626043-001 SD

| Parameter | Parent Result | Spike Amount | MS Result | MS %Rec | MSD Result | MSD %Rec | Limits | %RPD | RPD Limit | Units | Analysis Date | Flag |
|--------------|---------------|--------------|-----------|---------|------------|----------|--------|------|-----------|-------|----------------|------|
| Benzene | <0.000383 | 0.0996 | 0.0551 | 55 | 0.0574 | 58 | 70-130 | 4 | 35 | mg/kg | 06.06.19 21:09 | X |
| Toluene | <0.000454 | 0.0996 | 0.0438 | 44 | 0.0448 | 45 | 70-130 | 2 | 35 | mg/kg | 06.06.19 21:09 | X |
| Ethylbenzene | <0.000563 | 0.0996 | 0.0371 | 37 | 0.0371 | 37 | 70-130 | 0 | 35 | mg/kg | 06.06.19 21:09 | X |
| m,p-Xylenes | <0.00101 | 0.199 | 0.0749 | 38 | 0.0748 | 38 | 70-130 | 0 | 35 | mg/kg | 06.06.19 21:09 | X |
| o-Xylene | <0.00199 | 0.0996 | 0.0378 | 38 | 0.0375 | 38 | 70-130 | 1 | 35 | mg/kg | 06.06.19 21:09 | X |

| Surrogate | MS %Rec | MS Flag | MSD %Rec | MSD Flag | Limits | Units | Analysis Date |
|----------------------|---------|---------|----------|----------|--------|-------|----------------|
| 1,4-Difluorobenzene | 103 | | 103 | | 70-130 | % | 06.06.19 21:09 |
| 4-Bromofluorobenzene | 105 | | 105 | | 70-130 | % | 06.06.19 21:09 |

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Analysis Request of Chain of Custody Record



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

Client Name: **COG** Site Manager: **Ike Tavez**

Project Name: **Sopabella State 1H (4-22-19)**
Project Location: **Lea Co. Nm.**
Project #:

Invoice to: **COG - Ike Tavez**

Receiving Laboratory: **Xenco** Sampler Signature: *[Signature]*

Comments:

| LAB # (LAB USE ONLY) | SAMPLE IDENTIFICATION | SAMPLING | | MATRIX | | | | # CONTAINERS | FILTERED (Y/N) |
|-------------------------|-----------------------|----------|------|--------|------|-----|------------------|--------------|----------------|
| | | DATE | TIME | WATER | SOIL | HCL | HNO ₃ | | |
| AD-1 | 0-1 | 5-29-19 | | - | - | - | - | 1 | |
| AD-1 | 1-1.5' | 5-29-19 | | - | - | - | - | 1 | |
| | | | | | | | | | |
| | | | | | | | | | |

Relinquished by: *[Signature]* Date: **6-3-19** Time:
Received by: *[Signature]* Date: **6/3/19** Time: **1:00**

Relinquished by: Date: Time:
Received by: Date: Time:

ANALYSIS REQUEST (Circle or Specify Method No.)

- BTEX 8021B BTEX 8260B
- TPH TX1005 (Ext to C35)
- TPH 8015M (GRO - DRO - MRO)
- PAH 8270C
- Total Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Volatiles
- TCLP Semi Volatiles
- RCI
- GC/MS Vol. 8260B / 624
- GC/MS Semi. Vol. 8270C/625
- PCB's 8082 / 608
- NORM
- PLM (Asbestos)
- Chloride
- Chloride Sulfate TDS
- General Water Chemistry (see attached list)
- Anion/Cation Balance

| | |
|--------------------|----------|
| LAB USE ONLY | REMARKS: |
| Sample Temperature | Hold |
| US/C3 | |

RUSH: Same Day 24 hr 48 hr 72 hr
 Rush Charges Authorized
 Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking # _____



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: COG Operating LLC

Date/ Time Received: 06/03/2019 12:00:00 PM

Work Order #: 626281

Acceptable Temperature Range: 0 - 6 degC
 Air and Metal samples Acceptable Range: Ambient
 Temperature Measuring device used : R8

| Sample Receipt Checklist | Comments |
|---|----------|
| #1 *Temperature of cooler(s)? | .3 |
| #2 *Shipping container in good condition? | Yes |
| #3 *Samples received on ice? | Yes |
| #4 *Custody Seals intact on shipping container/ cooler? | Yes |
| #5 Custody Seals intact on sample bottles? | N/A |
| #6*Custody Seals Signed and dated? | N/A |
| #7 *Chain of Custody present? | Yes |
| #8 Any missing/extra samples? | No |
| #9 Chain of Custody signed when relinquished/ received? | Yes |
| #10 Chain of Custody agrees with sample labels/matrix? | Yes |
| #11 Container label(s) legible and intact? | Yes |
| #12 Samples in proper container/ bottle? | Yes |
| #13 Samples properly preserved? | Yes |
| #14 Sample container(s) intact? | Yes |
| #15 Sufficient sample amount for indicated test(s)? | Yes |
| #16 All samples received within hold time? | Yes |
| #17 Subcontract of sample(s)? | N/A |
| #18 Water VOC samples have zero headspace? | N/A |

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

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 06/03/2019
 Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06/03/2019
 Jessica Kramer