

District I
625 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-147
Revised April 3, 2017

Recycling Facility Only

Type of action: ☐ Permit ☒ Registration ☐ Modification ☐ Closure ☐ Other (explain) _____

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1. Operator: COG Operating LLC (For multiple operators attach page with information) OGRID #: 229137
Address: 600 W. Illinois Ave. Midland, Texas 79707
Facility or well name (include API# if associated with a well): Willow 17 State SWD #1
OCD Permit Number: _____ (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr P Section 17 Township 25 S Range 28 E County: Eddy
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2. ☒ **Recycling Facility:**
Location of recycling facility (if applicable): Latitude 32.124341 Longitude -104.101518 NAD83
Proposed Use: ☐ Drilling* ☒ Completion* ☐ Production* ☐ Plugging*
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
☐ Other, requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.
☒ Fluid Storage
☒ Above ground tanks ☐ Activity permitted under 19.15.17 NMAC explain type _____
☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____
☐ Closure Report (required within 60 days of closure completion): ☐ Recycling Facility Closure Completion Date: _____

3. **Variances:**
Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.
Check the below box only if a variance is requested:
☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.
If a Variance is requested, it must be approved prior to implementation.

4. **Operator Application Certification:**
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.
Name (Print): Tim Reed Title: Water Resource Analyst
Signature: Tim Reed Date: 08/02/18
e-mail address: treed@concho.com Telephone: 432-688-6634

5. **OCD Representative Signature:** _____ **Approval/Registration Date:** _____
Title: _____ **OCD Permit Number:** _____
☐ OCD Conditions _____
☐ Additional OCD Conditions on Attachment _____

Page 2 of 16
Received by OCD: 2/23/2021 3:50:22 PM
Released to Imaging: 2/24/2021 1:58:21 PM

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Type of action: ☐ Permit ☐ Registration ☐ Modification ☒ Closure ☐ Other (explain) _____

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1.
Operator: COG Operating LLC (For multiple operators attach page with information) OGRID #: 229137
Address: 600 W. Illinois Ave. Midland, Texas 79707
Facility or well name (include API# if associated with a well): Willow 17 State SWD #1
OCD Permit Number: 2RF-130 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr P Section 17 Township 25 S Range 28 E County: Eddy
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Recycling Facility:**
Location of recycling facility (if applicable): Latitude 32.124341 Longitude -104.101518 NAD83
Proposed Use: ☐ Drilling* ☒ Completion* ☐ Production* ☐ Plugging*
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
☐ Other, requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.
☒ Fluid Storage
☒ Above ground tanks ☐ Activity permitted under 19.15.17 NMAC explain type _____
☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____
☒ **Closure Report (required within 60 days of closure completion):** ☒ Recycling Facility Closure Completion Date: 05/14/2019

3.
Variances:
Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.
Check the below box only if a variance is requested:
☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.
If a Variance is requested, it must be approved prior to implementation.

4.
Operator Application Certification:
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.
Name (Print): Tim Reed Title: Water Resource Analyst
Signature: Tim Reed Date: 7/12/19
e-mail address: treed@concho.com Telephone: 432-238-8399

5.
OCD Representative Signature: _____ Approval/Registration Date: _____
Title: _____ OCD Permit Number: _____
☐ OCD Conditions
☐ Additional OCD Conditions on Attachment



November 8, 2019

Mr. Bradford Billings
NMOCD
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Amended Closure Report for the Willow 17-1 SWD Recycling Facility 2RF-130, Eddy County, NM

Mr. Billings:

This letter is written to amend the Closure Report dated July 5, 2019 which formally requested the closure of the registration of the Recycling Facility 2RF-130 located in Section 17, T-25-S, R-28-E, Eddy County, New Mexico. In a follow-up telephone conversation with you and Jim Griswold, it was discussed that while the soil sample composite taken from the Willow 17 State #1 pad was below the Closure criteria for Recycling Containments based upon depth to groundwater, the Chloride concentration of 1,580 mg/kg, did indicate some potential spillage of produce water, possibly during demobilization of the equipment. It was also noted that due to the hard-packed caliche, the sample was only able to be collected from the first 3 inches of the pad.

On September 19, 2019, the site was revisited and a deeper five (5) spot composite sample was collected by breaking through the hard-packed caliche to evaluate the soils beneath the pad. The composite sample was collected from 6"-12" depth. The results of the sampling are attached to this report. The chloride concentration of the underlying soils (192 mg/kg) was well below the minimum closure chloride concentration of 600 mg/kg. This confirms that the chloride concentrations found on the surface of the pad was likely incidental to the final dismantlement of the facility and piping. As previously reported, the facility has been shut down, the equipment was removed and a final inspection and sampling of the remaining pad was performed. This facility was located on a permanent pad adjacent to the Willow 17-1 SWD and will be retained for potential future development.

As such, please accept this letter, Form C-147 and attachments as the final Closure for Recycling Facility 2RF-130. If you have any questions or need any additional information, please advise.

Respectfully,

A handwritten signature in blue ink that reads "Tim Reed".
Tim Reed
Water Resource Advisor



Certificate of Analysis Summary 637510

COG Operating LLC, Artesia, NM

Project Name: Willow 17-1 Pad



Project Id:

Contact: Tim Reed

Project Location:

Date Received in Lab: Fri Sep-20-19 09:44 am

Report Date: 25-SEP-19

Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	637510-001				
BTEX by EPA 8021B		Field Id:	Willow 17-1 Pad				
		Depth:	6-12 In				
		Matrix:	SOIL				
		Sampled:	Sep-19-19 10:30				
		Extracted:	Sep-23-19 14:00				
		Analyzed:	Sep-24-19 07:05				
		Units/RL:	mg/kg RL				
Benzene			<0.00200 0.00200				
Toluene			<0.00200 0.00200				
Ethylbenzene			<0.00200 0.00200				
m,p-Xylenes			<0.00400 0.00400				
o-Xylene			<0.00200 0.00200				
Total Xylenes			<0.00200 0.00200				
Total BTEX			<0.00200 0.00200				
Chloride by EPA 300		Extracted:	Sep-20-19 13:20				
		Analyzed:	Sep-20-19 14:24				
		Units/RL:	mg/kg RL				
Chloride			192 5.03				
TPH By SW8015 Mod		Extracted:	Sep-23-19 14:00				
		Analyzed:	Sep-23-19 16:51				
		Units/RL:	mg/kg RL				
Gasoline Range Hydrocarbons			<49.9 49.9				
Diesel Range Organics			<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)			<49.9 49.9				
Total TPH			<49.9 49.9				

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

Version: 1.1%

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 637510

for
COG Operating LLC

Project Manager: Tim Reed

Willow 17-1 Pad

25-SEP-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-21), 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-Tampa: Florida (E87429), North Carolina (483)



25-SEP-19

Project Manager: **Tim Reed**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: XENCO Report No(s): **637510**
Willow 17-1 Pad
Project Address:

Tim Reed:

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) 637510. 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. 637510 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 637510



COG Operating LLC, Artesia, NM

Willow 17-1 Pad

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Willow 17-1 Pad	S	09-19-19 10:30	6 - 12 In	637510-001

**CASE NARRATIVE****Client Name: COG Operating LLC****Project Name: Willow 17-1 Pad****Project ID:****Work Order Number(s): 637510****Report Date: 25-SEP-19****Date Received: 09/20/2019****Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3102109 Chloride by EPA 300

Lab Sample ID 637510-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 637510-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3102263 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered above. Samples affected are: 7686705-1-BSD, 637568-001 S, 637568-001 SD.



Certificate of Analytical Results 637510



COG Operating LLC, Artesia, NM Willow 17-1 Pad

Sample Id: Willow 17-1 Pad Matrix: Soil Date Received: 09.20.19 09.44
Lab Sample Id: 637510-001 Date Collected: 09.19.19 10.30 Sample Depth: 6 - 12 In
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 09.20.19 13.20 Basis: Wet Weight
Seq Number: 3102109

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	5.03	mg/kg	09.20.19 14.24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: DVM Date Prep: 09.23.19 14.00 Basis: Wet Weight
Seq Number: 3102310

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	09.23.19 16.51	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	09.23.19 16.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.23.19 16.51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.23.19 16.51	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122		%	70-135	09.23.19 16.51	
o-Terphenyl	84-15-1	122		%	70-135	09.23.19 16.51	



Certificate of Analytical Results 637510



COG Operating LLC, Artesia, NM

Willow 17-1 Pad

Sample Id: Willow 17-1 Pad

Matrix: Soil

Date Received: 09.20.19 09.44

Lab Sample Id: 637510-001

Date Collected: 09.19.19 10.30

Sample Depth: 6 - 12 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 09.23.19 14.00

Basis: Wet Weight

Seq Number: 3102263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.24.19 07.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.24.19 07.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.24.19 07.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.24.19 07.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.24.19 07.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.24.19 07.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.24.19 07.05	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	78		%	70-130	09.24.19 07.05	
4-Bromofluorobenzene	460-00-4	83		%	70-130	09.24.19 07.05	



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



QC Summary 637510

COG Operating LLC Willow 17-1 Pad

Analytical Method: Chloride by EPA 300

Seq Number: 3102109

MB Sample Id: 7686607-1-BLK

Matrix: Solid

LCS Sample Id: 7686607-1-BKS

Prep Method: E300P

Date Prep: 09.20.19

LCSD Sample Id: 7686607-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	242	97	242	97	90-110	0	20	mg/kg	09.20.19 14:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3102109

Parent Sample Id: 637438-001

Matrix: Soil

MS Sample Id: 637438-001 S

Prep Method: E300P

Date Prep: 09.20.19

MSD Sample Id: 637438-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.3	250	275	96	275	96	90-110	0	20	mg/kg	09.20.19 16:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3102109

Parent Sample Id: 637510-001

Matrix: Soil

MS Sample Id: 637510-001 S

Prep Method: E300P

Date Prep: 09.20.19

MSD Sample Id: 637510-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	192	252	415	88	415	88	90-110	0	20	mg/kg	09.20.19 14:32	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3102310

MB Sample Id: 7686732-1-BLK

Matrix: Solid

LCS Sample Id: 7686732-1-BKS

Prep Method: SW8015P

Date Prep: 09.23.19

LCSD Sample Id: 7686732-1-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	<15.0	1000	1110	111	1160	116	70-135	4	20	mg/kg	09.23.19 14:23	
Diesel Range Organics	<15.0	1000	1100	110	1110	111	70-135	1	20	mg/kg	09.23.19 14:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		131		132		70-135	%	09.23.19 14:23
o-Terphenyl	118		128		124		70-135	%	09.23.19 14:23

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



QC Summary 637510

COG Operating LLC Willow 17-1 Pad

Analytical Method: TPH By SW8015 Mod

Seq Number: 3102310

Parent Sample Id: 637501-001

Matrix: Soil

MS Sample Id: 637501-001 S

Prep Method: SW8015P

Date Prep: 09.23.19

MSD Sample Id: 637501-001 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	<15.0	999	1160	116	1180	118	70-135	2	20	mg/kg	09.23.19 15:26	
Diesel Range Organics	438	999	1440	100	1450	102	70-135	1	20	mg/kg	09.23.19 15:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		126		70-135	%	09.23.19 15:26
o-Terphenyl	116		120		70-135	%	09.23.19 15:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3102263

MB Sample Id: 7686705-1-BLK

Matrix: Solid

LCS Sample Id: 7686705-1-BKS

Prep Method: SW5030B

Date Prep: 09.23.19

LCSD Sample Id: 7686705-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.103	103	0.107	107	70-130	4	35	mg/kg	09.23.19 10:04	
Toluene	<0.00200	0.100	0.0970	97	0.101	101	70-130	4	35	mg/kg	09.23.19 10:04	
Ethylbenzene	<0.00200	0.100	0.111	111	0.119	119	70-130	7	35	mg/kg	09.23.19 10:04	
m,p-Xylenes	<0.00400	0.200	0.234	117	0.248	124	70-130	6	35	mg/kg	09.23.19 10:04	
o-Xylene	<0.00200	0.100	0.112	112	0.122	122	70-130	9	35	mg/kg	09.23.19 10:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		91		94		70-130	%	09.23.19 10:04
4-Bromofluorobenzene	130		126		132	**	70-130	%	09.23.19 10:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3102263

Parent Sample Id: 637568-001

Matrix: Soil

MS Sample Id: 637568-001 S

Prep Method: SW5030B

Date Prep: 09.23.19

MSD Sample Id: 637568-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0370	37	0.0504	50	70-130	31	35	mg/kg	09.23.19 10:44	X
Toluene	<0.00199	0.0996	0.0301	30	0.0465	46	70-130	43	35	mg/kg	09.23.19 10:44	XF
Ethylbenzene	<0.00199	0.0996	0.0212	21	0.0455	45	70-130	73	35	mg/kg	09.23.19 10:44	XF
m,p-Xylenes	<0.00398	0.199	0.0401	20	0.0924	46	70-130	79	35	mg/kg	09.23.19 10:44	XF
o-Xylene	<0.00199	0.0996	0.0212	21	0.0437	43	70-130	69	35	mg/kg	09.23.19 10:44	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		90		70-130	%	09.23.19 10:44
4-Bromofluorobenzene	141	**	140	**	70-130	%	09.23.19 10:44

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



Chain of Custody

Work Order No. 18750

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Phoenix, AZ (480-335-0900) Atlanta, GA (770-449-8900) Tampa, FL (813) 251-1111
Hobbs, NM (575-382-7550)

Page 1 of 1

Project Manager:	Tim Reed		Phone: (770) 352-7350	Friesen, K. (480-355-0900)	Atlanta, GA (770-449-8800)	Tampa, FL
Company Name:	Concho		Bill to: (if different)			
Address:	600 W. Illinois		Company Name:			
City, State ZIP:	Midland, TX 79701		Address:			
Phone:	432-238-8399	Email:	reed@concho.com			

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EOD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Willow 17-1 Pad	Turn Around
Project Number:		Routine <input type="checkbox"/>
P.O. Number:		Rush: 3-Day
Sampler's Name:	Tim Reed	Due Date:

ANALYSIS REQUEST										Work Order Notes
3	600	600	600							

SAMPLE RECEIPT		Temp Blank:		Yes	No	Wet Ice:	Yes	No
Temperature (°C):		5.14.9		Yes	No	Thermometer ID		
Received In tact:		Yes	No			780		
Cooler Custody Seals:		Yes	No	N/A		Correction Factor:		
Custody Seals:		Yes	No	N/A		Total Containers: - .02		

	of Containers
EX 8021 E	H 8015 M lorides
TAT starts the day received by the	

[illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xanoco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xanoco 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 Xanoco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xanoco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	09:44/9/2			



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: COG Operating LLC

Date/ Time Received: 09/20/2019 09:44:00 AM

Work Order #: 637510

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)?	4.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6* Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Amanda Levario

Date: 09/20/2019

Checklist reviewed by:

Jessica Kramer

Date: 09/23/2019

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 18655

CONDITIONS OF APPROVAL

Operator:	COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	OGRID:	229137	Action Number:	18655	Action Type:	C-147L
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OCD Reviewer	Condition
vvenegas	NMOCD has reviewed and approved the closure report submitted by [229137] COG OPERATING LLC for 2RF-130 - Willow 17 State SWD #1, P-17-25S-28E, in Eddy County, New Mexico. A copy of the approved C-147 can be found in the OCD Imaging system @: https://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pAB1822732022