

June 11, 2018

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

Henryetta Price
Bureau of Land Management, CFO
620 E. Green Street
Carlsbad, NM 88220

APPROVED

By Olivia Yu at 10:48 am, Jun 15, 2018

NMOCD approves
1RP-4904 for closure.

Re: Closure Letter
Stealth Federal Com #004H
API #: 30-025-43338
RP#: 1RP-4904
Unit Letter P Section 17, Township 19S, Range 32E
Lea County, NM

Ms. Yu/Ms. Price,

COG Operating, LLC (COG) is pleased to submit for your consideration the following closure report for the Stealth Federal Com #004H. This release occurred on December 23, 2017. Following the release an assessment of impacted soils was conducted. A remediation work plan was submitted to and subsequently approved by the New Mexico Oil Conservation Division (NMOCD) and Bureau of Land Management (BLM). A copy of the approved work plan is attached in Appendix V.

BACKGROUND

The Stealth Federal Com #004H release is located in Unit Letter P, Section 17, Township 19 South and Range 32 East in Lea County, New Mexico. More specifically the latitude and longitude for this release are 32.65407565 North and -103.7828455 West.

On December 23, 2017, freezing caused the loss of supply gas to the FWKO pneumatic dumps this resulted in approximately eight-teen (18) barrels (bbls) of oil to spray from the flare. The overspray impacted the battery, location, and pasture. A vacuum truck was able to recover approximately twelve (12) bbls of oil. As part of initial response activities overspray residue was removed from the tanks and production equipment and the impacted area was treated with Micro-Blaze.

On April 25, 2018, remediation activities began in accordance with the approved work plan. The analytical results from the NMOCD and BLM approved confirmation soil sampling activities are summarized in the table below. A site diagram of the excavated area is presented in appendix I.

GROUNDWATER AND SITE RANKING

According to the New Mexico Office of the State Engineer (NMOSE) groundwater in the project vicinity is approximately three-hundred and forty-five (345) feet below ground surface (BGS) (Appendix II). No water well or surface water was observed within one-thousand (1,000) feet of the release site. Therefore the site ranking for this release is zero (0) based on the following:

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

CONFIRMATION SOIL SAMPLING RESULTS

Sample ID	Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)
N. Sidewall	<0.0019	<0.0019	<5.00	<14.9
S. Sidewall	<0.0019	<0.0019	316	<15.0
E. Sidewall	<0.002	<0.002	73.5	<14.9
W. Sidewall	<0.002	0.003	<5.00	<15.0

REMEDIAL ACTIONS

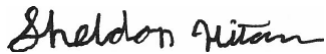
- The impacted area in the vicinity of sample locations T-3, T-4, and T-5 was excavated to a depth of one (1) foot BGS.
- The excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Sidewall samples were taken from the excavation in all four cardinal directions and analyzed for TPH, BTEX, and Chloride.
- Analytical results from the confirmation soil sampling activities indicated that all of the soil above NMOCD Recommended Remedial Actions levels was successfully removed.
- The excavation was backfilled with caliche and contoured to match the surrounding location.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and Bureau of Land Management grant closure approval for the Stealth Federal Com #004H incident that occurred on December 23, 2017.

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

Sincerely,



Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

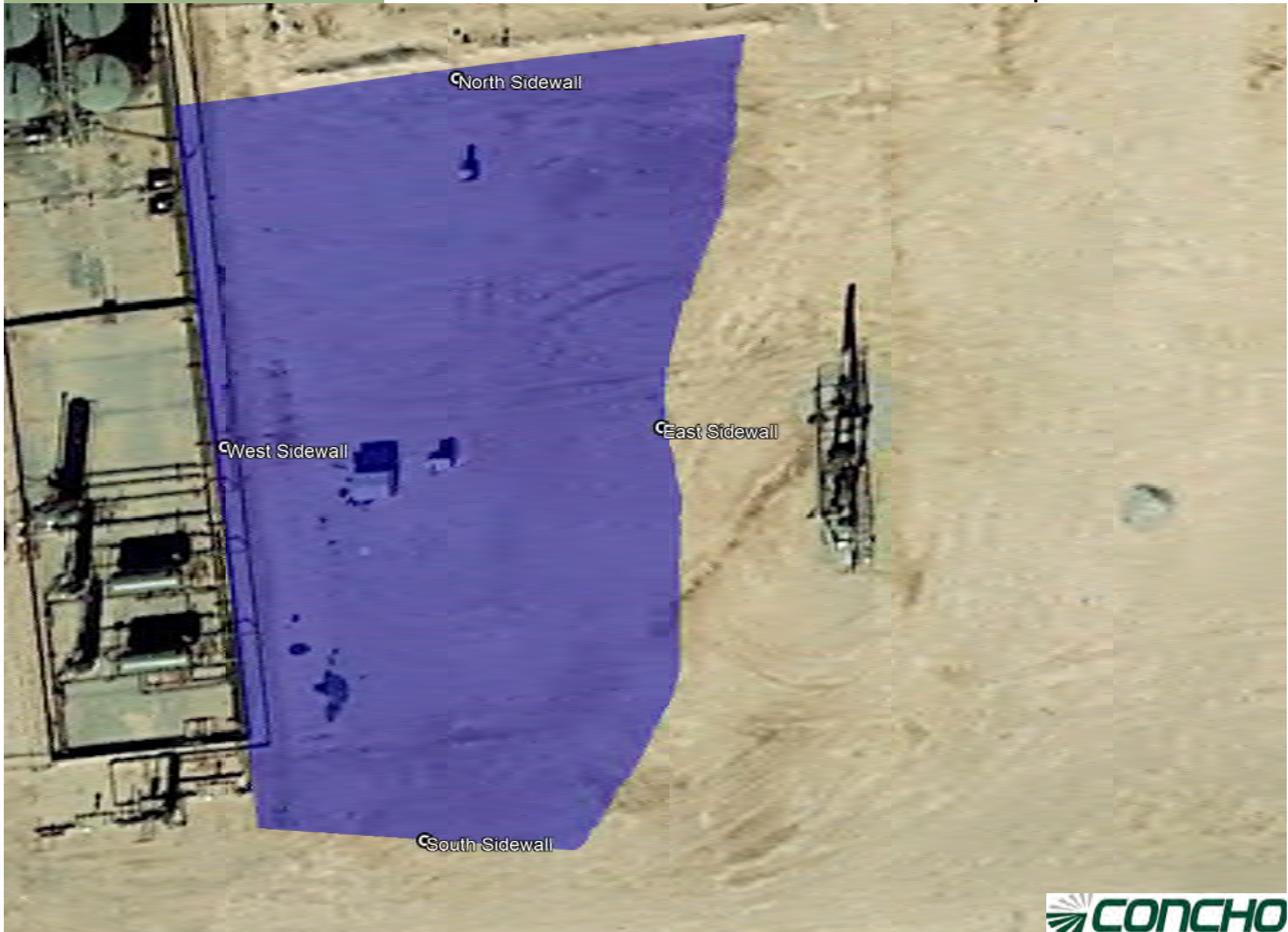
Enclosed:

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

APPENDIX I

December 23, 2017

Stealth Federal Com #004H



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
CP 01656 POD1	CP	LE		3	4	3	17	19S	32E	613368	3613646	860	70		
CP 00639 POD1	CP	LE		3	1	20	19S	32E	613029	3612880*		1448	350	345	5

Average Depth to Water: **345 feet**

Minimum Depth: **345 feet**

Maximum Depth: **345 feet**

Record Count: 2

Basin/County Search:

County: Lea

UTMNAD83 Radius Search (in meters):

Easting (X): 614227

Northing (Y): 3613695

Radius: 1500

*UTM location was derived from PLSS - see Help

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 April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443	
Facility Name: Stealth Federal Com #004H	Facility Type: Tank Battery	
Surface Owner: BLM	Mineral Owner: Federal	API No.: 30-025-43338

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	17	19S	32E	317	South	940	East	Lea

Latitude: 32.65407565 Longitude: -103.7828455 NAD83

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 18bbbls	Volume Recovered: 12bbbls
Source of Release: Flare	Date and Hour of Occurrence: 12/23/2017	Date and Hour of Discovery: 12/23/2017 8:10am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 1:45 pm, Dec 27, 2017

Describe Cause of Problem and Remedial Action Taken.*

Freezing caused loss of supply gas pressure to FWKO pneumatic dumps which resulted in fluid being sent to the flare.

Describe Area Affected and Cleanup Action Taken.*

The release impacted the well pad and the adjacent pasture. Concho will have the spill area evaluated for any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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

Signature: <i>Sheldon Hitchcock</i>	OIL CONSERVATION DIVISION	
Printed Name: Sheldon L. Hitchcock	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: HSE Coordinator	Approval Date: 12/27/2017	Expiration Date:
E-mail Address: slhitchcock@concho.com	Conditions of Approval: see attached directive	Attached ☒
Date: 12/27/2017	Phone: 575-746-2010	

* Attach Additional Sheets If Necessary

1RP-4904

nOY1736149956

pOY1736150102

APPENDIX IV

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443	
Facility Name: Stealth Federal Com #004H	Facility Type: Tank Battery	
Surface Owner: BLM	Mineral Owner: Federal	API No.: 30-025-43338

LOCATION OF RELEASE

Unit Letter P	Section 17	Township 19S	Range 32E	Feet from the 317	North/South Line South	Feet from the 940	East/West Line East	County Lea
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Latitude: 32.65407565 **Longitude:** -103.7828455 NAD83

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 18bbbls	Volume Recovered: 12bbbls
Source of Release: Flare	Date and Hour of Occurrence: 12/23/2017	Date and Hour of Discovery: 12/23/2017 8:10am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

APPROVED

By Olivia Yu at 10:49 am, Jun 15, 2018

Describe Cause of Problem and Remedial Action Taken.*

Freezing caused loss of supply gas pressure to FWKO pneumatic dumps which resulted in fluid being sent to the flare.

Describe Area Affected and Cleanup Action Taken.*

The release impacted the well pad and the adjacent pasture. Concho conducted a site assessment and soil sampling within the impacted area. Following receipt of analytical results from the initial soil sampling event a remediation work plan was drafted and submitted to NMOCD and BLM. The remediation work plan was subsequently approved. The remediation was carried out in accordance with the approved work plan.

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: *Sheldon Hitchcock*

Approved by Environmental Specialist:

Printed Name: **Sheldon L. Hitchcock**

Title: **HSE Coordinator**

Approval Date: **6/15/2018**

Expiration Date: **xx/xx/xxxx**

E-mail Address: **slhitchcock@concho.com**

Conditions of Approval:

Attached ☐

Date: **6/11/2018**

Phone: **575-746-2010**

* Attach Additional Sheets If Necessary

1RP-4904

APPENDIX V

March 5, 2018

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

Henryetta Price
Bureau of Land Management, CFO
620 E. Green Street
Carlsbad, NM 88220

APPROVED

By Olivia Yu at 11:54 am, Mar 30, 2018

NMOCD approves of the delineation completed for 1RP-4904 and the proposed remediation plan with these clarifications:
1) For the impacted area in the pasture, confirmation sidewall samples no greater than 75 ft. apart.
2) Mark confirmation sample locations on a scaled map with GPS coordinates.

**Re: Work Plan
Stealth Federal Com #004H
API #: 30-025-43338
RP#: 1RP-4904
Unit Letter P Section 17, Township 19S, Range 32E
Eddy County, NM**

Ms. Yu/Ms. Price,

COG Operating, LLC (COG) is pleased to submit for your consideration the following remediation work plan for the Stealth Federal Com #004H. This plan is in response to an oil release that occurred on December 23, 2017. Subsequent to the release a C-141 initial report was approved by the New Mexico Oil Conservation Division (NMOCD) on December 27, 2018

BACKGROUND

The Stealth Federal Com #004H release is located in Unit Letter P, Section 17, Township 19 South and Range 32 East in Lea County, New Mexico. More specifically the latitude and longitude for this release are 32.65407565 North and -103.7828455 West.

On December 23, 2017, freezing caused the loss of supply gas to the FWKO pneumatic dumps with resulted in approximately eight-teen (18) barrels (bbls) of oil to spray from the flare. The overspray impacted the battery, location, and pasture. A vacuum truck was able to recover approximately twelve (12) bbls of oil. As part of initial response activities overspray residue was removed from the tanks and production equipment and the impacted area was treated with Micro-Blazed.

On February 8, 2018, a site assessment and soil sampling were conducted in order to 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 three-hundred and forty-five (345) 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

2/8/2018

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	39.1	29.9
T-1	1	<0.002	<0.002	--	<15.0
T-1	2	<0.002	<0.002	--	<15.0
T-2	0	<0.002	0.003	5.14	3420
T-2	1	<0.002	<0.002	--	<15.0
T-2	2	<0.002	<0.002	--	<15.0
T-2	3	<0.002	<0.002	--	<15.0
T-3	0	0.027	7.86	698	125
T-3	1	<0.002	0.021	<4.90	<15.0
T-3	2	<0.002	<0.002	--	<15.0
T-3	3	<0.002	<0.002	11.7	<15.0
T-4	0	<0.002	0.003	764	9800
T-4	1	<0.002	<0.002	94.1	<15.0
T-4	2	<0.002	<0.002	--	<15.0
T-4	3	<0.002	<0.002	--	<15.0
T-4	4	<0.002	<0.002	--	<15.0
T-4	5	<0.002	<0.002	--	<15.0
T-4	6	<0.002	<0.002	--	<15.0
T-4	8	<0.002	<0.002	--	<15.0
T-4	10	<0.002	<0.002	--	<15.0
T-5	0	<0.002	<0.002	1480	1220
T-5	1	<0.002	<0.002	65.5	<15.0
T-5	2	<0.002	<0.002	--	<15.0

2/8/2018 Continued

Sample ID	Depth (feet)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)
T-5	3	<0.002	<0.002	--	<15.0
T-6	0	<0.002	0.0025	61.1	24.1
T-6	1	<0.002	<0.002	--	24.1
T-6	2	<0.002	<0.002	--	<15.0
T-6	3	<0.002	<0.002	--	<15.0
T-7	0	<0.002	<0.002	<4.90	26.5
T-7	1	<0.002	<0.002	--	<15.0
T-7	2	<0.002	<0.002	--	<15.0
T-7	3	<0.002	<0.002	--	<15.0
T-8	0	<0.002	<0.002	18.6	17.8
T-8	1	<0.002	<0.002	--	<15.0
T-8	2	<0.002	<0.002	--	<15.0
T-8	3	<0.002	<0.002	--	<15.0

(--) Analysis not requested

PROPOSED REMEDIAL ACTIONS

- The impacted area in the vicinity of sample locations T-3, T-4, and T-5 will be excavated to a depth of one (1) foot BGS.
- Sidewall samples will be taken from the excavation in all four cardinal directions and analyzed for TPH and Total Chlorides to confirm that all of the impacted soil above the NMOCD Recommended Remedial Action Levels (RRAL's) has been removed. The impacted area is fully vertically delineated therefore confirmation samples will not be taken at the bottom of the excavation.
- The excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- Upon receipt of acceptable analytical results from the sidewall confirmation sampling the excavation will be backfilled with caliche and contoured to match the surrounding location.

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

Sincerely,

A handwritten signature in black ink that reads "Sheldon Hitchcock". The script is cursive and fluid.

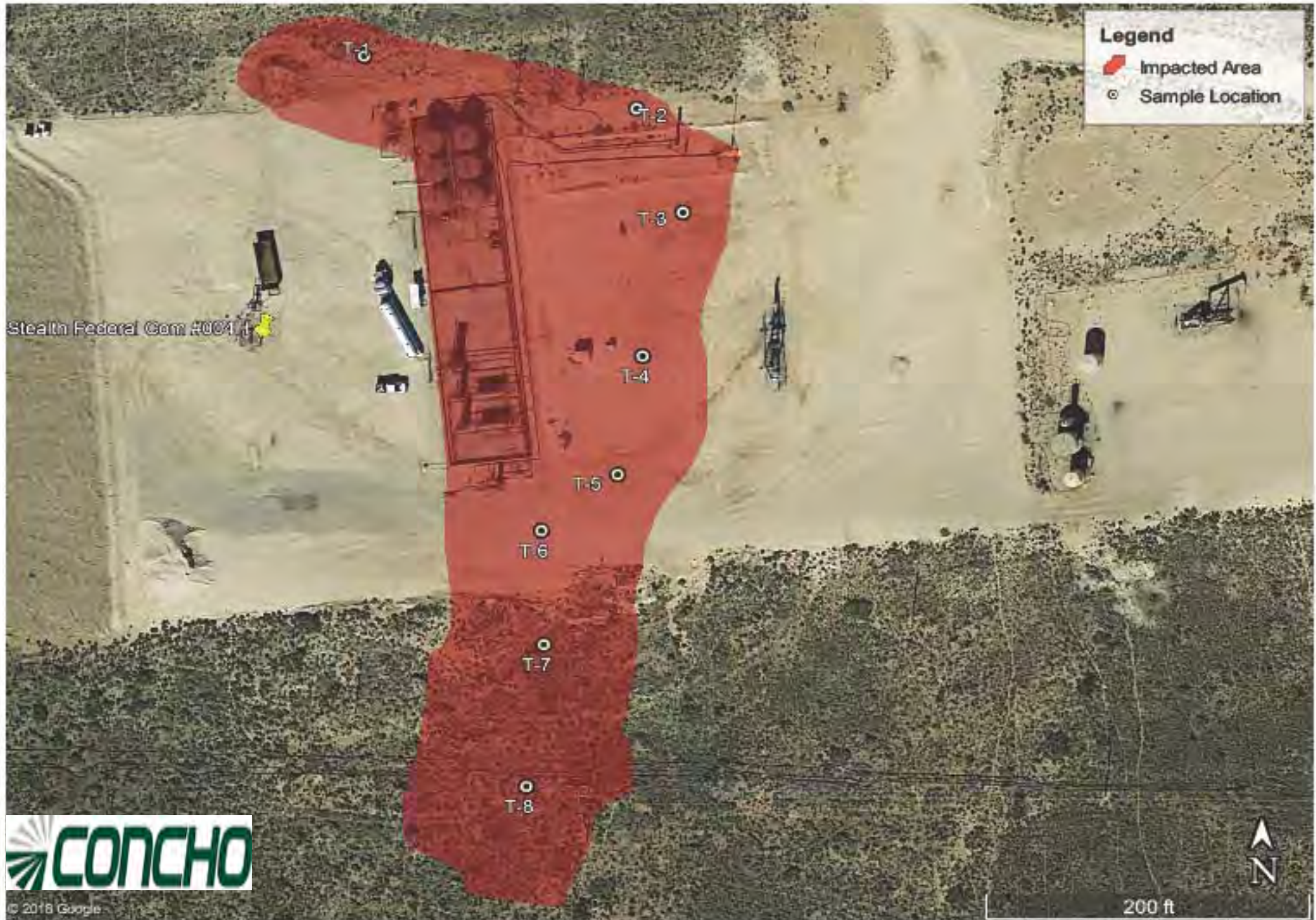
Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

Enclosed:

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

APPENDIX I

Stealth Federal Com #004H



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
CP 01656 POD1	CP	LE		3	4	3	17	19S	32E	613368	3613646	860	70		
CP 00639 POD1	CP	LE		3	1	20	19S	32E	613029	3612880*		1448	350	345	5

Average Depth to Water: **345 feet**

Minimum Depth: **345 feet**

Maximum Depth: **345 feet**

Record Count: 2

Basin/County Search:

County: Lea

UTMNAD83 Radius Search (in meters):

Easting (X): 614227

Northing (Y): 3613695

Radius: 1500

*UTM location was derived from PLSS - see Help

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
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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating, LLC (OGRID# 229137)	Contact: Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No.: 432-683-7443	
Facility Name: Stealth Federal Com #004H	Facility Type: Tank Battery	
Surface Owner: BLM	Mineral Owner: Federal	API No.: 30-025-43338

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	17	19S	32E	317	South	940	East	Lea

Latitude: 32.65407565 Longitude: -103.7828455 NAD83

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 18bbbls	Volume Recovered: 12bbbls
Source of Release: Flare	Date and Hour of Occurrence: 12/23/2017	Date and Hour of Discovery: 12/23/2017 8:10am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

RECEIVED
By Olivia Yu at 1:45 pm, Dec 27, 2017

Describe Cause of Problem and Remedial Action Taken.*
Freezing caused loss of supply gas pressure to FWKO pneumatic dumps which resulted in fluid being sent to the flare.

Describe Area Affected and Cleanup Action Taken.*

The release impacted the well pad and the adjacent pasture. Concho will have the spill area evaluated for any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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

Signature: <i>Sheldon Hitchcock</i>	OIL CONSERVATION DIVISION	
Printed Name: Sheldon L. Hitchcock	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: HSE Coordinator	Approval Date: 12/27/2017	Expiration Date:
E-mail Address: slhitchcock@concho.com	Conditions of Approval: see attached directive	Attached ☒
Date: 12/27/2017	Phone: 575-746-2010	

* Attach Additional Sheets If Necessary

1RP-4904

nOY1736149956

pOY1736150102

APPENDIX IV



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-001	576101-002	576101-003	576101-004	576101-005	576101-006
	Field Id:	T-1 0'	T-1 1'	T-1 2'	T-1 3'	T-2 0'	T-2 1'
	Depth:	0-	1-	2-	3-	0-	1-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 09:00	Feb-08-18 09:02	Feb-08-18 09:04	Feb-08-18 09:06	Feb-08-18 09:02	Feb-08-18 09:22
BTEX by EPA 8021B	Extracted:	Feb-13-18 10:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00
	Analyzed:	Feb-13-18 14:04	Feb-13-18 13:21	Feb-13-18 13:41	Feb-13-18 14:00	Feb-13-18 13:02	Feb-13-18 18:04
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Toluene		0.00203 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00262 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00403 0.00403	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		0.00203 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	0.00262 0.00202	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Feb-19-18 14:00				Feb-19-18 14:00	
	Analyzed:	Feb-19-18 19:27				Feb-19-18 20:09	
	Units/RL:	mg/kg RL				mg/kg RL	
Chloride		39.1 4.90				5.14 4.95	
TPH By SW8015 Mod	Extracted:	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00
	Analyzed:	Feb-13-18 19:27	Feb-13-18 20:27	Feb-13-18 20:47	Feb-13-18 21:08	Feb-14-18 08:00	Feb-13-18 21:48
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		29.9 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	3020 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	401 15.0	<15.0 15.0
Total TPH		29.9 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	3420 15.0	<15.0 15.0

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-007	576101-008	576101-009	576101-010	576101-011	576101-012
	Field Id:	T-2 2'	T-2 3'	T-3 0'	T-3 1'	T-3 2'	T-3 3'
	Depth:	2-	3-	0-	1-	2-	3-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 09:24	Feb-08-18 09:26	Feb-08-18 09:40	Feb-08-18 09:42	Feb-08-18 09:44	Feb-08-18 10:00
BTEX by EPA 8021B	Extracted:	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00
	Analyzed:	Feb-13-18 18:23	Feb-13-18 18:42	Feb-13-18 20:37	Feb-13-18 19:01	Feb-13-18 19:20	Feb-13-18 19:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00202 0.00202	0.0279 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00202 0.00202	3.42 D 0.201	0.00220 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	3.30 D 0.201	0.00467 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	0.784 0.00401	0.00785 0.00398	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	0.332 0.00200	0.00671 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	1.12 0.00200	0.0146 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	7.86 0.00200	0.0214 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	Extracted:			Feb-19-18 14:00	Feb-19-18 14:00		Feb-19-18 18:00
	Analyzed:			Feb-19-18 20:30	Feb-19-18 20:35		Feb-19-18 21:12
	Units/RL:			mg/kg RL	mg/kg RL		mg/kg RL
Chloride				698 4.90	<4.90 4.90		11.7 4.93
TPH By SW8015 Mod	Extracted:	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00
	Analyzed:	Feb-13-18 22:08	Feb-13-18 22:29	Feb-13-18 22:49	Feb-13-18 23:09	Feb-14-18 00:11	Feb-14-18 00:30
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	58.3 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	66.3 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	125 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	576101-013	576101-014	576101-015	576101-016	576101-017	576101-018
	<i>Field Id:</i>	T-4 0'	T-4 1'	T-4 2'	T-4 3'	T-4 4'	T-4 5'
	<i>Depth:</i>	0-	1-	2-	3-	4-	5-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-08-18 10:02	Feb-08-18 10:04	Feb-08-18 10:06	Feb-08-18 10:06	Feb-08-18 10:08	Feb-08-18 10:20
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-14-18 09:30	Feb-13-18 08:00	Feb-13-18 08:00	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30
	<i>Analyzed:</i>	Feb-14-18 14:58	Feb-13-18 19:59	Feb-13-18 20:18	Feb-14-18 09:57	Feb-14-18 10:16	Feb-14-18 10:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Toluene		0.00262 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		0.00262 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Feb-19-18 18:00	Feb-19-18 18:00				
	<i>Analyzed:</i>	Feb-19-18 21:28	Feb-19-18 21:34				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		764 5.00	94.1 4.90				
TPH By SW8015 Mod	<i>Extracted:</i>	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00
	<i>Analyzed:</i>	Feb-14-18 00:51	Feb-14-18 01:12	Feb-14-18 01:32	Feb-14-18 01:52	Feb-14-18 02:13	Feb-14-18 02:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		97.1 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		8670 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		1030 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		9800 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-019	576101-020	576101-021	576101-022	576101-023	576101-024
	Field Id:	T-4 6'	T-4 8'	T-4 10'	T-5 0'	T-5 1'	T-5 2'
	Depth:	6-	8-	10-	0-	1-	2-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 10:22	Feb-08-18 10:24	Feb-08-18 10:50	Feb-08-18 10:55	Feb-08-18 10:57	Feb-08-18 10:59
BTEX by EPA 8021B	Extracted:	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30
	Analyzed:	Feb-14-18 09:38	Feb-14-18 13:25	Feb-14-18 13:42	Feb-14-18 14:01	Feb-14-18 14:20	Feb-14-18 14:39
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00404 0.00404	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	Extracted:				Feb-19-18 18:00	Feb-19-18 18:00	
	Analyzed:				Feb-19-18 22:48	Feb-19-18 23:04	
	Units/RL:				mg/kg RL	mg/kg RL	
Chloride					1480 24.8	65.5 4.90	
TPH By SW8015 Mod	Extracted:	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 07:00	Feb-13-18 07:00	Feb-13-18 07:00	Feb-13-18 07:00
	Analyzed:	Feb-14-18 02:55	Feb-14-18 03:14	Feb-13-18 13:24	Feb-13-18 13:44	Feb-13-18 14:45	Feb-13-18 15:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	1060 15.0	<15.0 15.0	<14.9 14.9
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	162 15.0	<15.0 15.0	<14.9 14.9
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	1220 15.0	<15.0 15.0	<14.9 14.9

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Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-025	576101-026	576101-027	576101-028	576101-029	576101-030
	Field Id:	T-5 3'	T-6 0'	T-6 1'	T-6 2'	T-6 3'	T-7 0'
	Depth:	3-	0-	1-	2-	3-	0-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 11:02	Feb-08-18 11:30	Feb-08-18 11:32	Feb-08-18 11:34	Feb-08-18 11:36	Feb-08-18 11:40
BTEX by EPA 8021B	Extracted:	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30
	Analyzed:	Feb-15-18 14:37	Feb-15-18 10:15	Feb-15-18 14:56	Feb-15-18 12:27	Feb-15-18 15:15	Feb-15-18 15:32
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Toluene		<0.00199 0.00199	0.00250 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398	<0.00396 0.00396	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	0.00250 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Chloride by EPA 300	Extracted:		Feb-19-18 18:00				Feb-20-18 09:00
	Analyzed:		Feb-19-18 23:20				Feb-20-18 10:10
	Units/RL:		mg/kg RL				mg/kg RL
Chloride			61.1 4.97				<4.90 4.90
TPH By SW8015 Mod	Extracted:	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00
	Analyzed:	Feb-15-18 10:40	Feb-15-18 12:01	Feb-15-18 12:28	Feb-15-18 12:54	Feb-15-18 13:21	Feb-15-18 13:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<14.9 14.9	24.1 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	26.5 15.0
Oil Range Hydrocarbons (ORO)		<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<14.9 14.9	24.1 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	26.5 15.0

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Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-031	576101-032	576101-033	576101-034	576101-035	576101-036
	Field Id:	T-7 1'	T-7 2'	T-7 3'	T-8 0'	T-8 1'	T-8 2'
	Depth:	1-	2-	3-	0-	1-	2-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 12:00	Feb-08-18 12:02	Feb-08-18 12:04	Feb-08-18 12:20	Feb-08-18 12:22	Feb-08-18 12:24
BTEX by EPA 8021B	Extracted:	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 13:00	Feb-15-18 13:00
	Analyzed:	Feb-15-18 15:52	Feb-15-18 16:11	Feb-15-18 16:30	Feb-15-18 17:00	Feb-16-18 00:01	Feb-16-18 00:39
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:				Feb-20-18 09:00		
	Analyzed:				Feb-20-18 10:42		
	Units/RL:				mg/kg RL		
Chloride					18.6 4.92		
TPH By SW8015 Mod	Extracted:	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00
	Analyzed:	Feb-15-18 14:12	Feb-15-18 14:40	Feb-15-18 15:06	Feb-15-18 15:32	Feb-15-18 16:51	Feb-15-18 17:17
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	17.8 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<14.9 14.9	17.8 15.0	<15.0 15.0	<15.0 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.

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-037					
	Field Id:	T-8 3'					
	Depth:	3-					
	Matrix:	SOIL					
	Sampled:	Feb-08-18 12:26					
BTEX by EPA 8021B	Extracted:	Feb-15-18 13:00					
	Analyzed:	Feb-16-18 00:20					
	Units/RL:	mg/kg RL					
	Benzene	<0.00201 0.00201					
	Toluene	<0.00201 0.00201					
	Ethylbenzene	<0.00201 0.00201					
	m,p-Xylenes	<0.00402 0.00402					
	o-Xylene	<0.00201 0.00201					
	Total Xylenes	<0.00201 0.00201					
	Total BTEX	<0.00201 0.00201					
TPH By SW8015 Mod	Extracted:	Feb-15-18 08:00					
	Analyzed:	Feb-15-18 17:44					
	Units/RL:	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0					
	Diesel Range Organics (DRO)	<15.0 15.0					
	Oil Range Hydrocarbons (ORO)	<15.0 15.0					
	Total TPH	<15.0 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.

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director

Analytical Report 576101

for
COG Operating LLC

Project Manager: Sheldon Hitchcock

Stealth Fed Com #4H

21-FEB-18

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)



21-FEB-18

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

Reference: XENCO Report No(s): **576101**
Stealth Fed Com #4H
Project Address: Lea Co, NM

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 576101. 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. 576101 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

Odessa Laboratory Director

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

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COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 0'	S	02-08-18 09:00	0	576101-001
T-1 1'	S	02-08-18 09:02	1	576101-002
T-1 2'	S	02-08-18 09:04	2	576101-003
T-1 3'	S	02-08-18 09:06	3	576101-004
T-2 0'	S	02-08-18 09:02	0	576101-005
T-2 1'	S	02-08-18 09:22	1	576101-006
T-2 2'	S	02-08-18 09:24	2	576101-007
T-2 3'	S	02-08-18 09:26	3	576101-008
T-3 0'	S	02-08-18 09:40	0	576101-009
T-3 1'	S	02-08-18 09:42	1	576101-010
T-3 2'	S	02-08-18 09:44	2	576101-011
T-3 3'	S	02-08-18 10:00	3	576101-012
T-4 0'	S	02-08-18 10:02	0	576101-013
T-4 1'	S	02-08-18 10:04	1	576101-014
T-4 2'	S	02-08-18 10:06	2	576101-015
T-4 3'	S	02-08-18 10:06	3	576101-016
T-4 4'	S	02-08-18 10:08	4	576101-017
T-4 5'	S	02-08-18 10:20	5	576101-018
T-4 6'	S	02-08-18 10:22	6	576101-019
T-4 8'	S	02-08-18 10:24	8	576101-020
T-4 10'	S	02-08-18 10:50	10	576101-021
T-5 0'	S	02-08-18 10:55	0	576101-022
T-5 1'	S	02-08-18 10:57	1	576101-023
T-5 2'	S	02-08-18 10:59	2	576101-024
T-5 3'	S	02-08-18 11:02	3	576101-025
T-6 0'	S	02-08-18 11:30	0	576101-026
T-6 1'	S	02-08-18 11:32	1	576101-027
T-6 2'	S	02-08-18 11:34	2	576101-028
T-6 3'	S	02-08-18 11:36	3	576101-029
T-7 0'	S	02-08-18 11:40	0	576101-030
T-7 1'	S	02-08-18 12:00	1	576101-031
T-7 2'	S	02-08-18 12:02	2	576101-032
T-7 3'	S	02-08-18 12:04	3	576101-033
T-8 0'	S	02-08-18 12:20	0	576101-034
T-8 1'	S	02-08-18 12:22	1	576101-035
T-8 2'	S	02-08-18 12:24	2	576101-036
T-8 3'	S	02-08-18 12:26	3	576101-037



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Stealth Fed Com #4H

Project ID:
Work Order Number(s): 576101

Report Date: 21-FEB-18
Date Received: 02/12/2018

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040912 BTEX by EPA 8021B

Lab Sample ID 576101-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 576101-001.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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

Batch: LBA-3040994 BTEX by EPA 8021B

Lab Sample ID 576101-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene 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: 576101-002, -003, -004, -005, -006, -007, -008, -010, -011, -012, -014, -015.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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

Batch: LBA-3041092 BTEX by EPA 8021B

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

Batch: LBA-3041210 BTEX by EPA 8021B

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

Batch: LBA-3041241 BTEX by EPA 8021B

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



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Stealth Fed Com #4H

Project ID:

Work Order Number(s): 576101

Report Date: 21-FEB-18

Date Received: 02/12/2018

Batch: LBA-3041601 Chloride by EPA 300

Lab Sample ID 576101-012 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 576101-012, -013, -014, -022, -023, -026.

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



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-1 0'**
Lab Sample Id: 576101-001

Matrix: Soil
Date Collected: 02.08.18 09.00

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.1	4.90	mg/kg	02.19.18 19.27		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 19.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	29.9	15.0	mg/kg	02.13.18 19.27		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 19.27	U	1
Total TPH	PHC635	29.9	15.0	mg/kg	02.13.18 19.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.13.18 19.27	
o-Terphenyl	84-15-1	88	%	70-135	02.13.18 19.27	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-1 0'**
Lab Sample Id: 576101-001

Matrix: Soil
Date Collected: 02.08.18 09.00

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 10.00

Basis: Wet Weight

Seq Number: 3040912

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
Toluene	108-88-3	0.00203	0.00199	mg/kg	02.13.18 14.04		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 14.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
Total BTEX		0.00203	0.00199	mg/kg	02.13.18 14.04		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	80-120	02.13.18 14.04		
4-Bromofluorobenzene	460-00-4	119	%	80-120	02.13.18 14.04		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-1 1'
Lab Sample Id: 576101-002

Matrix: Soil
Date Collected: 02.08.18 09.02

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 20.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 20.27	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 20.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 20.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.13.18 20.27	
o-Terphenyl	84-15-1	94	%	70-135	02.13.18 20.27	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 13.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 13.21	
4-Bromofluorobenzene	460-00-4	105	%	80-120	02.13.18 13.21	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-1 2'
Lab Sample Id: 576101-003

Matrix: Soil
Date Collected: 02.08.18 09.04

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.13.18 20.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.13.18 20.47	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.13.18 20.47	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.13.18 20.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.13.18 20.47	
o-Terphenyl	84-15-1	99	%	70-135	02.13.18 20.47	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 13.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 13.41	
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.13.18 13.41	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-1 3'
Lab Sample Id: 576101-004

Matrix: Soil
Date Collected: 02.08.18 09.06

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 21.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 21.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 21.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 21.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.13.18 21.08	
o-Terphenyl	84-15-1	100	%	70-135	02.13.18 21.08	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.13.18 14.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	80-120	02.13.18 14.00	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 14.00	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-2 0'**
Lab Sample Id: 576101-005

Matrix: Soil
Date Collected: 02.08.18 09.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.14	4.95	mg/kg	02.19.18 20.09		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 08.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	3020	15.0	mg/kg	02.14.18 08.00		1
Oil Range Hydrocarbons (ORO)	PHCG2835	401	15.0	mg/kg	02.14.18 08.00		1
Total TPH	PHC635	3420	15.0	mg/kg	02.14.18 08.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.14.18 08.00	
o-Terphenyl	84-15-1	83	%	70-135	02.14.18 08.00	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-2 0'**
Lab Sample Id: 576101-005

Matrix: Soil
Date Collected: 02.08.18 09.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
Toluene	108-88-3	0.00262	0.00202	mg/kg	02.13.18 13.02		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.13.18 13.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
Total BTEX		0.00262	0.00202	mg/kg	02.13.18 13.02		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	80-120	02.13.18 13.02		
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.13.18 13.02		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 1'
Lab Sample Id: 576101-006

Matrix: Soil
Date Collected: 02.08.18 09.22

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 21.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 21.48	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 21.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 21.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.13.18 21.48	
o-Terphenyl	84-15-1	101	%	70-135	02.13.18 21.48	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.13.18 18.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.13.18 18.04	
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.13.18 18.04	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 2'
Lab Sample Id: 576101-007

Matrix: Soil
Date Collected: 02.08.18 09.24

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 22.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 22.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 22.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 22.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.13.18 22.08	
o-Terphenyl	84-15-1	99	%	70-135	02.13.18 22.08	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 18.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.13.18 18.23	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 18.23	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 3'
Lab Sample Id: 576101-008

Matrix: Soil
Date Collected: 02.08.18 09.26

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 22.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 22.29	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 22.29	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 22.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.13.18 22.29	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 22.29	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.13.18 18.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	80-120	02.13.18 18.42	
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 18.42	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-3 0'**
Lab Sample Id: 576101-009

Matrix: Soil
Date Collected: 02.08.18 09.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	698	4.90	mg/kg	02.19.18 20.30		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	58.3	14.9	mg/kg	02.13.18 22.49		1
Diesel Range Organics (DRO)	C10C28DRO	66.3	14.9	mg/kg	02.13.18 22.49		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.13.18 22.49	U	1
Total TPH	PHC635	125	14.9	mg/kg	02.13.18 22.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.13.18 22.49	
o-Terphenyl	84-15-1	92	%	70-135	02.13.18 22.49	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-3 0'**
Lab Sample Id: 576101-009

Matrix: Soil
Date Collected: 02.08.18 09.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0279	0.00200	mg/kg	02.13.18 20.37		1
Toluene	108-88-3	3.42	0.201	mg/kg	02.15.18 12.46	D	100
Ethylbenzene	100-41-4	3.30	0.201	mg/kg	02.15.18 12.46	D	100
m,p-Xylenes	179601-23-1	0.784	0.00401	mg/kg	02.13.18 20.37		1
o-Xylene	95-47-6	0.332	0.00200	mg/kg	02.13.18 20.37		1
Total Xylenes	1330-20-7	1.12	0.00200	mg/kg	02.13.18 20.37		1
Total BTEX		7.86	0.00200	mg/kg	02.15.18 12.46		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	90	%	80-120	02.13.18 20.37		
4-Bromofluorobenzene	460-00-4	101	%	80-120	02.13.18 20.37		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 1'
Lab Sample Id: 576101-010

Matrix: Soil
Date Collected: 02.08.18 09.42

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.90	4.90	mg/kg	02.19.18 20.35	U	1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 23.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 23.09	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 23.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 23.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.13.18 23.09	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 23.09	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 1'
Lab Sample Id: 576101-010

Matrix: Soil
Date Collected: 02.08.18 09.42

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 19.01	U	1
Toluene	108-88-3	0.00220	0.00199	mg/kg	02.13.18 19.01		1
Ethylbenzene	100-41-4	0.00467	0.00199	mg/kg	02.13.18 19.01		1
m,p-Xylenes	179601-23-1	0.00785	0.00398	mg/kg	02.13.18 19.01		1
o-Xylene	95-47-6	0.00671	0.00199	mg/kg	02.13.18 19.01		1
Total Xylenes	1330-20-7	0.0146	0.00199	mg/kg	02.13.18 19.01		1
Total BTEX		0.0214	0.00199	mg/kg	02.13.18 19.01		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.13.18 19.01		
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.13.18 19.01		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 2'
Lab Sample Id: 576101-011

Matrix: Soil
Date Collected: 02.08.18 09.44

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 00.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 00.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 00.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 00.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.14.18 00.11	
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 00.11	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.13.18 19.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 19.20	
4-Bromofluorobenzene	460-00-4	110	%	80-120	02.13.18 19.20	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 3'
Lab Sample Id: 576101-012

Matrix: Soil
Date Collected: 02.08.18 10.00

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	4.93	mg/kg	02.19.18 21.12		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	02.14.18 00.30		
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 00.30		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 3'
Lab Sample Id: 576101-012

Matrix: Soil
Date Collected: 02.08.18 10.00

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 19.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	80-120	02.13.18 19.40		
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.13.18 19.40		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 0'**
Lab Sample Id: 576101-013

Matrix: Soil
Date Collected: 02.08.18 10.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	764	5.00	mg/kg	02.19.18 21.28		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	97.1	74.9	mg/kg	02.14.18 00.51		5
Diesel Range Organics (DRO)	C10C28DRO	8670	74.9	mg/kg	02.14.18 00.51		5
Oil Range Hydrocarbons (ORO)	PHCG2835	1030	74.9	mg/kg	02.14.18 00.51		5
Total TPH	PHC635	9800	74.9	mg/kg	02.14.18 00.51		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	02.14.18 00.51		
o-Terphenyl	84-15-1	92	%	70-135	02.14.18 00.51		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 0'**
Lab Sample Id: 576101-013

Matrix: Soil
Date Collected: 02.08.18 10.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.14.18 09.30

Basis: Wet Weight

Seq Number: 3041092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
Toluene	108-88-3	0.00262	0.00201	mg/kg	02.14.18 14.58		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.14.18 14.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
Total BTEX		0.00262	0.00201	mg/kg	02.14.18 14.58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.14.18 14.58		
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.14.18 14.58		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 1'
Lab Sample Id: 576101-014

Matrix: Soil
Date Collected: 02.08.18 10.04

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	94.1	4.90	mg/kg	02.19.18 21.34		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 01.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 01.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 01.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.14.18 01.12	
o-Terphenyl	84-15-1	96	%	70-135	02.14.18 01.12	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 1'
Lab Sample Id: 576101-014

Matrix: Soil
Date Collected: 02.08.18 10.04

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 19.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.13.18 19.59		
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.13.18 19.59		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 2'
Lab Sample Id: 576101-015

Matrix: Soil
Date Collected: 02.08.18 10.06

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.14.18 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.14.18 01.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.14.18 01.32	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.14.18 01.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.14.18 01.32	
o-Terphenyl	84-15-1	101	%	70-135	02.14.18 01.32	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 20.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 20.18	
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.13.18 20.18	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 3'
Lab Sample Id: 576101-016

Matrix: Soil
Date Collected: 02.08.18 10.06

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 01.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 01.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 01.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 01.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.14.18 01.52	
o-Terphenyl	84-15-1	105	%	70-135	02.14.18 01.52	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.18 09.57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.14.18 09.57	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 09.57	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 4'
Lab Sample Id: 576101-017

Matrix: Soil
Date Collected: 02.08.18 10.08

Date Received: 02.12.18 07.50
Sample Depth: 4

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 02.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 02.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 02.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 02.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	02.14.18 02.13	
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 02.13	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.14.18 10.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	80-120	02.14.18 10.16	
1,4-Difluorobenzene	540-36-3	92	%	80-120	02.14.18 10.16	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 5'
Lab Sample Id: 576101-018

Matrix: Soil
Date Collected: 02.08.18 10.20

Date Received: 02.12.18 07.50
Sample Depth: 5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 02.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 02.35	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 02.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.14.18 02.35	
o-Terphenyl	84-15-1	94	%	70-135	02.14.18 02.35	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.14.18 10.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.14.18 10.35	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 10.35	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 6'**
Lab Sample Id: 576101-019

Matrix: Soil
Date Collected: 02.08.18 10.22

Date Received: 02.12.18 07.50
Sample Depth: 6

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 02.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 02.55	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 02.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 02.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.14.18 02.55	
o-Terphenyl	84-15-1	98	%	70-135	02.14.18 02.55	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.18 09.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.14.18 09.38	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.14.18 09.38	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 8'**
Lab Sample Id: 576101-020

Matrix: Soil
Date Collected: 02.08.18 10.24

Date Received: 02.12.18 07.50
Sample Depth: 8

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 03.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 03.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 03.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 03.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.14.18 03.14	
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 03.14	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.14.18 13.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	80-120	02.14.18 13.25	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.14.18 13.25	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 10'**
Lab Sample Id: 576101-021

Matrix: Soil
Date Collected: 02.08.18 10.50

Date Received: 02.12.18 07.50
Sample Depth: 10

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 13.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 13.24	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 13.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 13.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.13.18 13.24	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 13.24	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.14.18 13.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	80-120	02.14.18 13.42	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 13.42	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 0'
Lab Sample Id: 576101-022

Matrix: Soil
Date Collected: 02.08.18 10.55

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1480	24.8	mg/kg	02.19.18 22.48		5

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 13.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	1060	15.0	mg/kg	02.13.18 13.44		1
Oil Range Hydrocarbons (ORO)	PHCG2835	162	15.0	mg/kg	02.13.18 13.44		1
Total TPH	PHC635	1220	15.0	mg/kg	02.13.18 13.44		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	02.13.18 13.44		
o-Terphenyl	84-15-1	81	%	70-135	02.13.18 13.44		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-5 0'**
Lab Sample Id: 576101-022

Matrix: Soil
Date Collected: 02.08.18 10.55

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.14.18 09.30

Basis: Wet Weight

Seq Number: 3041092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.14.18 14.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	80-120	02.14.18 14.01		
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.14.18 14.01		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 1'
Lab Sample Id: 576101-023

Matrix: Soil
Date Collected: 02.08.18 10.57

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.5	4.90	mg/kg	02.19.18 23.04		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 14.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 14.45	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 14.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 14.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.13.18 14.45	
o-Terphenyl	84-15-1	95	%	70-135	02.13.18 14.45	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 1'
Lab Sample Id: 576101-023

Matrix: Soil
Date Collected: 02.08.18 10:57

Date Received: 02.12.18 07:50
Sample Depth: 1

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.14.18 09:30

Basis: Wet Weight

Seq Number: 3041092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.14.18 14.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 14.20		
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.14.18 14.20		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 2'
Lab Sample Id: 576101-024

Matrix: Soil
Date Collected: 02.08.18 10.59

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.13.18 15.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.13.18 15.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.13.18 15.05	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.13.18 15.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.13.18 15.05	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 15.05	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.18 14.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	80-120	02.14.18 14.39	
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.14.18 14.39	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 3'
Lab Sample Id: 576101-025

Matrix: Soil
Date Collected: 02.08.18 11.02

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.18 10.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.18 10.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.15.18 10.40	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.18 10.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	02.15.18 10.40	
o-Terphenyl	84-15-1	117	%	70-135	02.15.18 10.40	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.15.18 14.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.15.18 14.37	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 14.37	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-6 0'**
Lab Sample Id: 576101-026

Matrix: Soil
Date Collected: 02.08.18 11.30

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	61.1	4.97	mg/kg	02.19.18 23.20		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 12.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	24.1	15.0	mg/kg	02.15.18 12.01		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 12.01	U	1
Total TPH	PHC635	24.1	15.0	mg/kg	02.15.18 12.01		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	101	%	70-135	02.15.18 12.01		
o-Terphenyl	84-15-1	101	%	70-135	02.15.18 12.01		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-6 0'**
Lab Sample Id: 576101-026

Matrix: Soil
Date Collected: 02.08.18 11.30

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.15.18 09.30

Basis: Wet Weight

Seq Number: 3041210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
Toluene	108-88-3	0.00250	0.00200	mg/kg	02.15.18 10.15		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.15.18 10.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
Total BTEX		0.00250	0.00200	mg/kg	02.15.18 10.15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	80-120	02.15.18 10.15		
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 10.15		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-6 1'
Lab Sample Id: 576101-027

Matrix: Soil
Date Collected: 02.08.18 11.32

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.18 12.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.18 12.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.15.18 12.28	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.18 12.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	02.15.18 12.28	
o-Terphenyl	84-15-1	108	%	70-135	02.15.18 12.28	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.15.18 14.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.15.18 14.56	
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.15.18 14.56	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-6 2'
Lab Sample Id: 576101-028

Matrix: Soil
Date Collected: 02.08.18 11.34

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 12.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 12.54	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 12.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 12.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.15.18 12.54	
o-Terphenyl	84-15-1	100	%	70-135	02.15.18 12.54	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.15.18 12.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.15.18 12.27	
4-Bromofluorobenzene	460-00-4	112	%	80-120	02.15.18 12.27	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-6 3'**
Lab Sample Id: 576101-029

Matrix: Soil
Date Collected: 02.08.18 11.36

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 13.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 13.21	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 13.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 13.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.15.18 13.21	
o-Terphenyl	84-15-1	103	%	70-135	02.15.18 13.21	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.15.18 15.15	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	80-120	02.15.18 15.15	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.15.18 15.15	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-7 0'**
Lab Sample Id: 576101-030

Matrix: Soil
Date Collected: 02.08.18 11.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041689

Date Prep: 02.20.18 09.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.90	4.90	mg/kg	02.20.18 10.10	U	1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 13.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	26.5	15.0	mg/kg	02.15.18 13.46		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 13.46	U	1
Total TPH	PHC635	26.5	15.0	mg/kg	02.15.18 13.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	02.15.18 13.46	
o-Terphenyl	84-15-1	98	%	70-135	02.15.18 13.46	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-7 0'**
Lab Sample Id: 576101-030

Matrix: Soil
Date Collected: 02.08.18 11.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.15.18 09.30

Basis: Wet Weight

Seq Number: 3041210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.15.18 15.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 15.32		
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.15.18 15.32		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-7 1'
Lab Sample Id: 576101-031

Matrix: Soil
Date Collected: 02.08.18 12.00

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 14.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 14.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 14.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 14.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	02.15.18 14.12	
o-Terphenyl	84-15-1	106	%	70-135	02.15.18 14.12	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.15.18 15.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.15.18 15.52	
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.15.18 15.52	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-7 2'
Lab Sample Id: 576101-032

Matrix: Soil
Date Collected: 02.08.18 12.02

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 14.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 14.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 14.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 14.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.15.18 14.40	
o-Terphenyl	84-15-1	104	%	70-135	02.15.18 14.40	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.15.18 16.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	80-120	02.15.18 16.11	
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.15.18 16.11	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-7 3'
Lab Sample Id: 576101-033

Matrix: Soil
Date Collected: 02.08.18 12.04

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.18 15.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.18 15.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.15.18 15.06	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.18 15.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	02.15.18 15.06	
o-Terphenyl	84-15-1	108	%	70-135	02.15.18 15.06	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.15.18 16.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	80-120	02.15.18 16.30	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 16.30	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 0'**
Lab Sample Id: 576101-034

Matrix: Soil
Date Collected: 02.08.18 12.20

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041689

Date Prep: 02.20.18 09.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.6	4.92	mg/kg	02.20.18 10.42		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 15.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	17.8	15.0	mg/kg	02.15.18 15.32		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 15.32	U	1
Total TPH	PHC635	17.8	15.0	mg/kg	02.15.18 15.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.15.18 15.32	
o-Terphenyl	84-15-1	102	%	70-135	02.15.18 15.32	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 0'**
Lab Sample Id: 576101-034

Matrix: Soil
Date Collected: 02.08.18 12.20

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.15.18 17.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	80-120	02.15.18 17.00		
1,4-Difluorobenzene	540-36-3	89	%	80-120	02.15.18 17.00		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 1'**
Lab Sample Id: 576101-035

Matrix: Soil
Date Collected: 02.08.18 12.22

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 16.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 16.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 16.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 16.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.15.18 16.51	
o-Terphenyl	84-15-1	104	%	70-135	02.15.18 16.51	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041241

Date Prep: 02.15.18 13.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.16.18 00.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.16.18 00.01	
4-Bromofluorobenzene	460-00-4	90	%	80-120	02.16.18 00.01	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 2'**
Lab Sample Id: 576101-036

Matrix: Soil
Date Collected: 02.08.18 12.24

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 17.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 17.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 17.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 17.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	02.15.18 17.17	
o-Terphenyl	84-15-1	110	%	70-135	02.15.18 17.17	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041241

Date Prep: 02.15.18 13.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.16.18 00.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	80-120	02.16.18 00.39	
1,4-Difluorobenzene	540-36-3	87	%	80-120	02.16.18 00.39	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 3'**
Lab Sample Id: 576101-037

Matrix: Soil
Date Collected: 02.08.18 12.26

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 17.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 17.44	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 17.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 17.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.15.18 17.44	
o-Terphenyl	84-15-1	96	%	70-135	02.15.18 17.44	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041241

Date Prep: 02.15.18 13.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.16.18 00.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.16.18 00.20	
4-Bromofluorobenzene	460-00-4	95	%	80-120	02.16.18 00.20	

- 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

+ 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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QC Summary 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: Chloride by EPA 300

Seq Number: 3041591

MB Sample Id: 7639422-1-BLK

Matrix: Solid

LCS Sample Id: 7639422-1-BKS

Prep Method: E300P

Date Prep: 02.19.18

LCSD Sample Id: 7639422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	267	250	267	107	274	110	90-110	3	20	mg/kg	02.19.18 18:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3041601

MB Sample Id: 7639425-1-BLK

Matrix: Solid

LCS Sample Id: 7639425-1-BKS

Prep Method: E300P

Date Prep: 02.19.18

LCSD Sample Id: 7639425-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	262	250	262	105	274	110	90-110	4	20	mg/kg	02.19.18 21:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3041689

MB Sample Id: 7639426-1-BLK

Matrix: Solid

LCS Sample Id: 7639426-1-BKS

Prep Method: E300P

Date Prep: 02.20.18

LCSD Sample Id: 7639426-1-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	264	106	264	106	90-110	0	20	mg/kg	02.20.18 09:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3041591

Parent Sample Id: 576035-010

Matrix: Soil

MS Sample Id: 576035-010 S

Prep Method: E300P

Date Prep: 02.19.18

MSD Sample Id: 576035-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	54.5	246	306	102	344	118	90-110	12	20	mg/kg	02.19.18 18:23	X

Analytical Method: Chloride by EPA 300

Seq Number: 3041601

Parent Sample Id: 576101-012

Matrix: Soil

MS Sample Id: 576101-012 S

Prep Method: E300P

Date Prep: 02.19.18

MSD Sample Id: 576101-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.7	247	278	108	293	114	90-110	5	20	mg/kg	02.19.18 21:18	X

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: Chloride by EPA 300

Seq Number: 3041689

Parent Sample Id: 576101-030

Matrix: Soil

MS Sample Id: 576101-030 S

Prep Method: E300P

Date Prep: 02.20.18

MSD Sample Id: 576101-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.90	245	255	104	256	104	90-110	0	20	mg/kg	02.20.18 10:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3041689

Parent Sample Id: 576102-004

Matrix: Soil

MS Sample Id: 576102-004 S

Prep Method: E300P

Date Prep: 02.20.18

MSD Sample Id: 576102-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.90	245	257	105	257	105	90-110	0	20	mg/kg	02.20.18 11:29	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041032

MB Sample Id: 7639062-1-BLK

Matrix: Solid

LCS Sample Id: 7639062-1-BKS

Prep Method: TX1005P

Date Prep: 02.13.18

LCSD Sample Id: 7639062-1-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 (GRO)	<15.0	1000	1050	105	913	91	70-135	14	35	mg/kg	02.13.18 09:22	
Diesel Range Organics (DRO)	<15.0	1000	1150	115	985	99	70-135	15	35	mg/kg	02.13.18 09:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		122		106		70-135	%	02.13.18 09:22
o-Terphenyl	100		123		104		70-135	%	02.13.18 09:22

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041035

MB Sample Id: 7639063-1-BLK

Matrix: Solid

LCS Sample Id: 7639063-1-BKS

Prep Method: TX1005P

Date Prep: 02.13.18

LCSD Sample Id: 7639063-1-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 (GRO)	<15.0	1000	936	94	953	95	70-135	2	35	mg/kg	02.13.18 18:47	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1050	105	70-135	1	35	mg/kg	02.13.18 18:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		111		110		70-135	%	02.13.18 18:47
o-Terphenyl	91		112		112		70-135	%	02.13.18 18:47

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC

Stealth Fed Com #4H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041217

MB Sample Id: 7639225-1-BLK

Matrix: Solid

LCS Sample Id: 7639225-1-BKS

Prep Method: TX1005P

Date Prep: 02.15.18

LCSD Sample Id: 7639225-1-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 (GRO)	<15.0	1000	999	100	1080	108	70-135	8	35	mg/kg	02.15.18 09:49	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1200	120	70-135	10	35	mg/kg	02.15.18 09:49	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	92		122		124		70-135	%	02.15.18 09:49			
o-Terphenyl	94		121		130		70-135	%	02.15.18 09:49			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041032

Parent Sample Id: 576035-001

Matrix: Soil

MS Sample Id: 576035-001 S

Prep Method: TX1005P

Date Prep: 02.13.18

MSD Sample Id: 576035-001 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 (GRO)	8940	1000	8750	0	9300	36	70-135	6	35	mg/kg	02.14.18 04:18	X
Diesel Range Organics (DRO)	8360	1000	9490	113	9860	150	70-135	4	35	mg/kg	02.14.18 04:18	X
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane			106			100			70-135	%	02.14.18 04:18	
o-Terphenyl			101			101			70-135	%	02.14.18 04:18	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041035

Parent Sample Id: 576101-001

Matrix: Soil

MS Sample Id: 576101-001 S

Prep Method: TX1005P

Date Prep: 02.13.18

MSD Sample Id: 576101-001 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 (GRO)	<15.0	999	999	100	1080	108	70-135	8	35	mg/kg	02.13.18 19:47	
Diesel Range Organics (DRO)	29.9	999	1090	106	1180	115	70-135	8	35	mg/kg	02.13.18 19:47	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1-Chlorooctane			113			120		70-135		%	02.13.18 19:47	
o-Terphenyl			103			114		70-135		%	02.13.18 19:47	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041217

Parent Sample Id: 576101-025

Matrix: Soil

MS Sample Id: 576101-025 S

Prep Method: TX1005P

Date Prep: 02.15.18

MSD Sample Id: 576101-025 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 (GRO)	<15.0	998	921	92	1010	101	70-135	9	35	mg/kg	02.15.18 11:08	
Diesel Range Organics (DRO)	<15.0	998	1040	104	1120	112	70-135	7	35	mg/kg	02.15.18 11:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		117		70-135	%	02.15.18 11:08
o-Terphenyl	105		112		70-135	%	02.15.18 11:08

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040994

MB Sample Id: 7639094-1-BLK

Matrix: Solid

LCS Sample Id: 7639094-1-BKS

Prep Method: SW5030B

Date Prep: 02.13.18

LCSD Sample Id: 7639094-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0920	93	0.0903	90	70-130	2	35	mg/kg	02.13.18 10:44	
Toluene	<0.00199	0.0994	0.0969	97	0.0956	96	70-130	1	35	mg/kg	02.13.18 10:44	
Ethylbenzene	<0.00199	0.0994	0.108	109	0.106	106	71-129	2	35	mg/kg	02.13.18 10:44	
m,p-Xylenes	<0.00398	0.199	0.212	107	0.210	105	70-135	1	35	mg/kg	02.13.18 10:44	
o-Xylene	<0.00199	0.0994	0.103	104	0.103	103	71-133	0	35	mg/kg	02.13.18 10:44	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		84		80-120	%	02.13.18 10:44
4-Bromofluorobenzene	108		114		118		80-120	%	02.13.18 10:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040912

MB Sample Id: 7639041-1-BLK

Matrix: Solid

LCS Sample Id: 7639041-1-BKS

Prep Method: SW5030B

Date Prep: 02.13.18

LCSD Sample Id: 7639041-1-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	0.0990	0.0991	100	0.0885	89	70-130	11	35	mg/kg	02.13.18 11:26	
Toluene	<0.00198	0.0990	0.0965	97	0.0869	87	70-130	10	35	mg/kg	02.13.18 11:26	
Ethylbenzene	<0.00198	0.0990	0.100	101	0.0903	90	71-129	10	35	mg/kg	02.13.18 11:26	
m,p-Xylenes	<0.00396	0.198	0.195	98	0.176	88	70-135	10	35	mg/kg	02.13.18 11:26	
o-Xylene	<0.00198	0.0990	0.0993	100	0.0899	90	71-133	10	35	mg/kg	02.13.18 11:26	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		92		80-120	%	02.13.18 11:26
4-Bromofluorobenzene	112		119		115		80-120	%	02.13.18 11:26

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * | (C-E) / (C+E) |$
 $[D] = 100 * (C) / [B]$

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
Stealth Fed Com #4H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041092

MB Sample Id: 7639132-1-BLK

Matrix: Solid

LCS Sample Id: 7639132-1-BKS

Prep Method: SW5030B

Date Prep: 02.14.18

LCSD Sample Id: 7639132-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0899	90	0.0870	86	70-130	3	35	mg/kg	02.14.18 07:24	
Toluene	<0.00201	0.100	0.0963	96	0.0927	92	70-130	4	35	mg/kg	02.14.18 07:24	
Ethylbenzene	<0.00201	0.100	0.109	109	0.104	103	71-129	5	35	mg/kg	02.14.18 07:24	
m,p-Xylenes	<0.00402	0.201	0.215	107	0.205	101	70-135	5	35	mg/kg	02.14.18 07:24	
o-Xylene	<0.00201	0.100	0.106	106	0.101	100	71-133	5	35	mg/kg	02.14.18 07:24	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	83		83		82		80-120			%	02.14.18 07:24	
4-Bromofluorobenzene	105		117		115		80-120			%	02.14.18 07:24	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041210

MB Sample Id: 7639222-1-BLK

Matrix: Solid

LCS Sample Id: 7639222-1-BKS

Prep Method: SW5030B

Date Prep: 02.15.18

LCSD Sample Id: 7639222-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0891	89	0.0852	85	70-130	4	35	mg/kg	02.15.18 08:01	
Toluene	<0.00200	0.0998	0.0944	95	0.0894	89	70-130	5	35	mg/kg	02.15.18 08:01	
Ethylbenzene	<0.00200	0.0998	0.105	105	0.0998	100	71-129	5	35	mg/kg	02.15.18 08:01	
m,p-Xylenes	<0.00399	0.200	0.208	104	0.197	99	70-135	5	35	mg/kg	02.15.18 08:01	
o-Xylene	<0.00200	0.0998	0.102	102	0.0965	97	71-133	6	35	mg/kg	02.15.18 08:01	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	82		86		82		80-120			%	02.15.18 08:01	
4-Bromofluorobenzene	96		112		114		80-120			%	02.15.18 08:01	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041241

MB Sample Id: 7639243-1-BLK

Matrix: Solid

LCS Sample Id: 7639243-1-BKS

Prep Method: SW5030B

Date Prep: 02.15.18

LCSD Sample Id: 7639243-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0891	88	0.0855	86	70-130	4	35	mg/kg	02.15.18 17:57	
Toluene	<0.00202	0.101	0.0937	93	0.0893	89	70-130	5	35	mg/kg	02.15.18 17:57	
Ethylbenzene	<0.00202	0.101	0.102	101	0.0996	100	71-129	2	35	mg/kg	02.15.18 17:57	
m,p-Xylenes	<0.00403	0.202	0.200	99	0.195	98	70-135	3	35	mg/kg	02.15.18 17:57	
o-Xylene	<0.00202	0.101	0.0991	98	0.0966	97	71-133	3	35	mg/kg	02.15.18 17:57	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	84		92		88		80-120			%	02.15.18 17:57	
4-Bromofluorobenzene	97		108		107		80-120			%	02.15.18 17:57	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery $[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$ LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD ResultMS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



QC Summary 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040994

Parent Sample Id: 576101-005

Matrix: Soil

MS Sample Id: 576101-005 S

Prep Method: SW5030B

Date Prep: 02.13.18

MSD Sample Id: 576101-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0542	54	0.0655	65	70-130	19	35	mg/kg	02.13.18 16:39	X
Toluene	0.00262	0.100	0.0388	36	0.0551	52	70-130	35	35	mg/kg	02.13.18 16:39	X
Ethylbenzene	<0.00201	0.100	0.0376	38	0.0450	45	71-129	18	35	mg/kg	02.13.18 16:39	X
m,p-Xylenes	<0.00402	0.201	0.0675	34	0.0848	42	70-135	23	35	mg/kg	02.13.18 16:39	X
o-Xylene	<0.00201	0.100	0.0389	39	0.0452	45	71-133	15	35	mg/kg	02.13.18 16:39	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		87		80-120	%	02.13.18 16:39
4-Bromofluorobenzene	116		109		80-120	%	02.13.18 16:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040912

Parent Sample Id: 576101-001

Matrix: Soil

MS Sample Id: 576101-001 S

Prep Method: SW5030B

Date Prep: 02.13.18

MSD Sample Id: 576101-001 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	0.0994	0.0829	83	0.0930	92	70-130	11	35	mg/kg	02.13.18 12:41	
Toluene	0.00203	0.0994	0.0440	42	0.0441	42	70-130	0	35	mg/kg	02.13.18 12:41	X
Ethylbenzene	<0.00199	0.0994	0.0437	44	0.0367	36	71-129	17	35	mg/kg	02.13.18 12:41	X
m,p-Xylenes	<0.00398	0.199	0.0860	43	0.0666	33	70-135	25	35	mg/kg	02.13.18 12:41	X
o-Xylene	<0.00199	0.0994	0.0430	43	0.0329	33	71-133	27	35	mg/kg	02.13.18 12:41	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		83		80-120	%	02.13.18 12:41
4-Bromofluorobenzene	81		80		80-120	%	02.13.18 12:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041092

Parent Sample Id: 576101-019

Matrix: Soil

MS Sample Id: 576101-019 S

Prep Method: SW5030B

Date Prep: 02.14.18

MSD Sample Id: 576101-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0732	72	0.0729	73	70-130	0	35	mg/kg	02.14.18 08:03	
Toluene	<0.00202	0.101	0.0769	76	0.0761	76	70-130	1	35	mg/kg	02.14.18 08:03	
Ethylbenzene	<0.00202	0.101	0.0848	84	0.0848	85	71-129	0	35	mg/kg	02.14.18 08:03	
m,p-Xylenes	<0.00403	0.202	0.168	83	0.167	84	70-135	1	35	mg/kg	02.14.18 08:03	
o-Xylene	<0.00202	0.101	0.0827	82	0.0817	82	71-133	1	35	mg/kg	02.14.18 08:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		83		80-120	%	02.14.18 08:03
4-Bromofluorobenzene	119		115		80-120	%	02.14.18 08:03

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * | (C-E) / (C+E) |$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041210

Parent Sample Id: 576101-026

Matrix: Soil

MS Sample Id: 576101-026 S

Prep Method: SW5030B

Date Prep: 02.15.18

MSD Sample Id: 576101-026 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0733	73	0.0775	78	70-130	6	35	mg/kg	02.15.18 08:39	
Toluene	0.00250	0.100	0.0772	75	0.0819	80	70-130	6	35	mg/kg	02.15.18 08:39	
Ethylbenzene	<0.00201	0.100	0.0809	81	0.0867	87	71-129	7	35	mg/kg	02.15.18 08:39	
m,p-Xylenes	<0.00402	0.201	0.159	79	0.171	86	70-135	7	35	mg/kg	02.15.18 08:39	
o-Xylene	<0.00201	0.100	0.0804	80	0.0845	85	71-133	5	35	mg/kg	02.15.18 08:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		87		80-120	%	02.15.18 08:39
4-Bromofluorobenzene	113		113		80-120	%	02.15.18 08:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041241

Parent Sample Id: 576108-001

Matrix: Soil

MS Sample Id: 576108-001 S

Prep Method: SW5030B

Date Prep: 02.15.18

MSD Sample Id: 576108-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0801	80	0.0788	79	70-130	2	35	mg/kg	02.15.18 18:35	
Toluene	<0.00200	0.0998	0.0833	83	0.0810	81	70-130	3	35	mg/kg	02.15.18 18:35	
Ethylbenzene	<0.00200	0.0998	0.0876	88	0.0852	85	71-129	3	35	mg/kg	02.15.18 18:35	
m,p-Xylenes	<0.00399	0.200	0.171	86	0.166	83	70-135	3	35	mg/kg	02.15.18 18:35	
o-Xylene	<0.00200	0.0998	0.0850	85	0.0843	84	71-133	1	35	mg/kg	02.15.18 18:35	

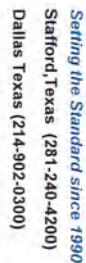
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		90		80-120	%	02.15.18 18:35
4-Bromofluorobenzene	106		107		80-120	%	02.15.18 18:35

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$

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

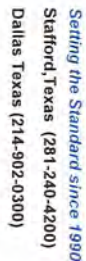
Page 1 of 4

Phoenix, Arizona (480-355-0900)

Xenco Quote #	Xenco Job #
	576101

[illegible]

be enforced unless previously repugated under a fully executed client contract.



Page 2 of 4

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

Phoenix, Arizona (480-355-0900)

www.xenco.com

576101
~~576102~~

Notice. **Notice:** Signature of this document and release 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 negotiated under a fully executed client contract.

Setting the Standard since 1990
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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[illegible]

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



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: COG Operating LLC

Date/ Time Received: 02/12/2018 07:50:00 AM

Work Order #: 576101

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)?	1.6
#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
#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

Missing samples 025-037

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Connie Hernandez

Date: 02/12/2018

Checklist reviewed by:

Jessica Kramer

Date: 02/12/2018

APPENDIX VI



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-001	576101-002	576101-003	576101-004	576101-005	576101-006
	Field Id:	T-1 0'	T-1 1'	T-1 2'	T-1 3'	T-2 0'	T-2 1'
	Depth:	0-	1-	2-	3-	0-	1-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 09:00	Feb-08-18 09:02	Feb-08-18 09:04	Feb-08-18 09:06	Feb-08-18 09:02	Feb-08-18 09:22
BTEX by EPA 8021B	Extracted:	Feb-13-18 10:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00
	Analyzed:	Feb-13-18 14:04	Feb-13-18 13:21	Feb-13-18 13:41	Feb-13-18 14:00	Feb-13-18 13:02	Feb-13-18 18:04
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Toluene		0.00203 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00262 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00403 0.00403	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		0.00203 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	0.00262 0.00202	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Feb-19-18 14:00				Feb-19-18 14:00	
	Analyzed:	Feb-19-18 19:27				Feb-19-18 20:09	
	Units/RL:	mg/kg RL				mg/kg RL	
Chloride		39.1 4.90				5.14 4.95	
TPH By SW8015 Mod	Extracted:	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00
	Analyzed:	Feb-13-18 19:27	Feb-13-18 20:27	Feb-13-18 20:47	Feb-13-18 21:08	Feb-14-18 08:00	Feb-13-18 21:48
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		29.9 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	3020 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	401 15.0	<15.0 15.0
Total TPH		29.9 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	3420 15.0	<15.0 15.0

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Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	576101-007	576101-008	576101-009	576101-010	576101-011	576101-012
	<i>Field Id:</i>	T-2 2'	T-2 3'	T-3 0'	T-3 1'	T-3 2'	T-3 3'
	<i>Depth:</i>	2-	3-	0-	1-	2-	3-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-08-18 09:24	Feb-08-18 09:26	Feb-08-18 09:40	Feb-08-18 09:42	Feb-08-18 09:44	Feb-08-18 10:00
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00	Feb-13-18 08:00
	<i>Analyzed:</i>	Feb-13-18 18:23	Feb-13-18 18:42	Feb-13-18 20:37	Feb-13-18 19:01	Feb-13-18 19:20	Feb-13-18 19:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00202 0.00202	0.0279 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00202 0.00202	3.42 D 0.201	0.00220 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	3.30 D 0.201	0.00467 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	0.784 0.00401	0.00785 0.00398	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	0.332 0.00200	0.00671 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	1.12 0.00200	0.0146 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	7.86 0.00200	0.0214 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>			Feb-19-18 14:00	Feb-19-18 14:00		Feb-19-18 18:00
	<i>Analyzed:</i>			Feb-19-18 20:30	Feb-19-18 20:35		Feb-19-18 21:12
	<i>Units/RL:</i>			mg/kg RL	mg/kg RL		mg/kg RL
Chloride				698 4.90	<4.90 4.90		11.7 4.93
TPH By SW8015 Mod	<i>Extracted:</i>	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00
	<i>Analyzed:</i>	Feb-13-18 22:08	Feb-13-18 22:29	Feb-13-18 22:49	Feb-13-18 23:09	Feb-14-18 00:11	Feb-14-18 00:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	58.3 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	66.3 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	125 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	576101-013	576101-014	576101-015	576101-016	576101-017	576101-018
	<i>Field Id:</i>	T-4 0'	T-4 1'	T-4 2'	T-4 3'	T-4 4'	T-4 5'
	<i>Depth:</i>	0-	1-	2-	3-	4-	5-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-08-18 10:02	Feb-08-18 10:04	Feb-08-18 10:06	Feb-08-18 10:06	Feb-08-18 10:08	Feb-08-18 10:20
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-14-18 09:30	Feb-13-18 08:00	Feb-13-18 08:00	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30
	<i>Analyzed:</i>	Feb-14-18 14:58	Feb-13-18 19:59	Feb-13-18 20:18	Feb-14-18 09:57	Feb-14-18 10:16	Feb-14-18 10:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Toluene		0.00262 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		0.00262 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Feb-19-18 18:00	Feb-19-18 18:00				
	<i>Analyzed:</i>	Feb-19-18 21:28	Feb-19-18 21:34				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		764 5.00	94.1 4.90				
TPH By SW8015 Mod	<i>Extracted:</i>	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 14:00
	<i>Analyzed:</i>	Feb-14-18 00:51	Feb-14-18 01:12	Feb-14-18 01:32	Feb-14-18 01:52	Feb-14-18 02:13	Feb-14-18 02:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		97.1 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		8670 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		1030 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		9800 74.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-019	576101-020	576101-021	576101-022	576101-023	576101-024
	Field Id:	T-4 6'	T-4 8'	T-4 10'	T-5 0'	T-5 1'	T-5 2'
	Depth:	6-	8-	10-	0-	1-	2-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 10:22	Feb-08-18 10:24	Feb-08-18 10:50	Feb-08-18 10:55	Feb-08-18 10:57	Feb-08-18 10:59
BTEX by EPA 8021B	Extracted:	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30	Feb-14-18 09:30
	Analyzed:	Feb-14-18 09:38	Feb-14-18 13:25	Feb-14-18 13:42	Feb-14-18 14:01	Feb-14-18 14:20	Feb-14-18 14:39
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00404 0.00404	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	Extracted:				Feb-19-18 18:00	Feb-19-18 18:00	
	Analyzed:				Feb-19-18 22:48	Feb-19-18 23:04	
	Units/RL:				mg/kg RL	mg/kg RL	
Chloride					1480 24.8	65.5 4.90	
TPH By SW8015 Mod	Extracted:	Feb-13-18 14:00	Feb-13-18 14:00	Feb-13-18 07:00	Feb-13-18 07:00	Feb-13-18 07:00	Feb-13-18 07:00
	Analyzed:	Feb-14-18 02:55	Feb-14-18 03:14	Feb-13-18 13:24	Feb-13-18 13:44	Feb-13-18 14:45	Feb-13-18 15:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	1060 15.0	<15.0 15.0	<14.9 14.9
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	162 15.0	<15.0 15.0	<14.9 14.9
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	1220 15.0	<15.0 15.0	<14.9 14.9

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-025	576101-026	576101-027	576101-028	576101-029	576101-030
	Field Id:	T-5 3'	T-6 0'	T-6 1'	T-6 2'	T-6 3'	T-7 0'
	Depth:	3-	0-	1-	2-	3-	0-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 11:02	Feb-08-18 11:30	Feb-08-18 11:32	Feb-08-18 11:34	Feb-08-18 11:36	Feb-08-18 11:40
BTEX by EPA 8021B	Extracted:	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30
	Analyzed:	Feb-15-18 14:37	Feb-15-18 10:15	Feb-15-18 14:56	Feb-15-18 12:27	Feb-15-18 15:15	Feb-15-18 15:32
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Toluene		<0.00199 0.00199	0.00250 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398	<0.00396 0.00396	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	0.00250 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202
Chloride by EPA 300	Extracted:		Feb-19-18 18:00				Feb-20-18 09:00
	Analyzed:		Feb-19-18 23:20				Feb-20-18 10:10
	Units/RL:		mg/kg RL				mg/kg RL
Chloride			61.1 4.97				<4.90 4.90
TPH By SW8015 Mod	Extracted:	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00
	Analyzed:	Feb-15-18 10:40	Feb-15-18 12:01	Feb-15-18 12:28	Feb-15-18 12:54	Feb-15-18 13:21	Feb-15-18 13:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<14.9 14.9	24.1 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	26.5 15.0
Oil Range Hydrocarbons (ORO)		<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<14.9 14.9	24.1 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	26.5 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.

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-031	576101-032	576101-033	576101-034	576101-035	576101-036
	Field Id:	T-7 1'	T-7 2'	T-7 3'	T-8 0'	T-8 1'	T-8 2'
	Depth:	1-	2-	3-	0-	1-	2-
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-08-18 12:00	Feb-08-18 12:02	Feb-08-18 12:04	Feb-08-18 12:20	Feb-08-18 12:22	Feb-08-18 12:24
BTEX by EPA 8021B	Extracted:	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 09:30	Feb-15-18 13:00	Feb-15-18 13:00
	Analyzed:	Feb-15-18 15:52	Feb-15-18 16:11	Feb-15-18 16:30	Feb-15-18 17:00	Feb-16-18 00:01	Feb-16-18 00:39
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:				Feb-20-18 09:00		
	Analyzed:				Feb-20-18 10:42		
	Units/RL:				mg/kg RL		
Chloride					18.6 4.92		
TPH By SW8015 Mod	Extracted:	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00	Feb-15-18 08:00
	Analyzed:	Feb-15-18 14:12	Feb-15-18 14:40	Feb-15-18 15:06	Feb-15-18 15:32	Feb-15-18 16:51	Feb-15-18 17:17
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	17.8 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<14.9 14.9	17.8 15.0	<15.0 15.0	<15.0 15.0

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director



Certificate of Analysis Summary 576101

COG Operating LLC, Artesia, NM

Project Name: Stealth Fed Com #4H



Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Co, NM

Date Received in Lab: Mon Feb-12-18 07:50 am

Report Date: 21-FEB-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	576101-037					
	Field Id:	T-8 3'					
	Depth:	3-					
	Matrix:	SOIL					
	Sampled:	Feb-08-18 12:26					
BTEX by EPA 8021B	Extracted:	Feb-15-18 13:00					
	Analyzed:	Feb-16-18 00:20					
	Units/RL:	mg/kg RL					
	Benzene	<0.00201 0.00201					
	Toluene	<0.00201 0.00201					
	Ethylbenzene	<0.00201 0.00201					
	m,p-Xylenes	<0.00402 0.00402					
	o-Xylene	<0.00201 0.00201					
	Total Xylenes	<0.00201 0.00201					
	Total BTEX	<0.00201 0.00201					
TPH By SW8015 Mod	Extracted:	Feb-15-18 08:00					
	Analyzed:	Feb-15-18 17:44					
	Units/RL:	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0					
	Diesel Range Organics (DRO)	<15.0 15.0					
	Oil Range Hydrocarbons (ORO)	<15.0 15.0					
	Total TPH	<15.0 15.0					

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Version: 1.0%

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director

Analytical Report 576101

for COG Operating LLC

Project Manager: Sheldon Hitchcock

Stealth Fed Com #4H

21-FEB-18

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)



21-FEB-18

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

Reference: XENCO Report No(s): **576101**
Stealth Fed Com #4H
Project Address: Lea Co, NM

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 576101. 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. 576101 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

Odessa Laboratory Director

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COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 0'	S	02-08-18 09:00	0	576101-001
T-1 1'	S	02-08-18 09:02	1	576101-002
T-1 2'	S	02-08-18 09:04	2	576101-003
T-1 3'	S	02-08-18 09:06	3	576101-004
T-2 0'	S	02-08-18 09:02	0	576101-005
T-2 1'	S	02-08-18 09:22	1	576101-006
T-2 2'	S	02-08-18 09:24	2	576101-007
T-2 3'	S	02-08-18 09:26	3	576101-008
T-3 0'	S	02-08-18 09:40	0	576101-009
T-3 1'	S	02-08-18 09:42	1	576101-010
T-3 2'	S	02-08-18 09:44	2	576101-011
T-3 3'	S	02-08-18 10:00	3	576101-012
T-4 0'	S	02-08-18 10:02	0	576101-013
T-4 1'	S	02-08-18 10:04	1	576101-014
T-4 2'	S	02-08-18 10:06	2	576101-015
T-4 3'	S	02-08-18 10:06	3	576101-016
T-4 4'	S	02-08-18 10:08	4	576101-017
T-4 5'	S	02-08-18 10:20	5	576101-018
T-4 6'	S	02-08-18 10:22	6	576101-019
T-4 8'	S	02-08-18 10:24	8	576101-020
T-4 10'	S	02-08-18 10:50	10	576101-021
T-5 0'	S	02-08-18 10:55	0	576101-022
T-5 1'	S	02-08-18 10:57	1	576101-023
T-5 2'	S	02-08-18 10:59	2	576101-024
T-5 3'	S	02-08-18 11:02	3	576101-025
T-6 0'	S	02-08-18 11:30	0	576101-026
T-6 1'	S	02-08-18 11:32	1	576101-027
T-6 2'	S	02-08-18 11:34	2	576101-028
T-6 3'	S	02-08-18 11:36	3	576101-029
T-7 0'	S	02-08-18 11:40	0	576101-030
T-7 1'	S	02-08-18 12:00	1	576101-031
T-7 2'	S	02-08-18 12:02	2	576101-032
T-7 3'	S	02-08-18 12:04	3	576101-033
T-8 0'	S	02-08-18 12:20	0	576101-034
T-8 1'	S	02-08-18 12:22	1	576101-035
T-8 2'	S	02-08-18 12:24	2	576101-036
T-8 3'	S	02-08-18 12:26	3	576101-037



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Stealth Fed Com #4H

Project ID:
Work Order Number(s): 576101

Report Date: 21-FEB-18
Date Received: 02/12/2018

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040912 BTEX by EPA 8021B

Lab Sample ID 576101-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 576101-001.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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

Batch: LBA-3040994 BTEX by EPA 8021B

Lab Sample ID 576101-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene 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: 576101-002, -003, -004, -005, -006, -007, -008, -010, -011, -012, -014, -015.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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

Batch: LBA-3041092 BTEX by EPA 8021B

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

Batch: LBA-3041210 BTEX by EPA 8021B

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

Batch: LBA-3041241 BTEX by EPA 8021B

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



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Stealth Fed Com #4H

Project ID:

Work Order Number(s): 576101

Report Date: 21-FEB-18

Date Received: 02/12/2018

Batch: LBA-3041601 Chloride by EPA 300

Lab Sample ID 576101-012 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 576101-012, -013, -014, -022, -023, -026.

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



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-1 0'**
Lab Sample Id: 576101-001

Matrix: Soil
Date Collected: 02.08.18 09.00

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.1	4.90	mg/kg	02.19.18 19.27		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 19.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	29.9	15.0	mg/kg	02.13.18 19.27		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 19.27	U	1
Total TPH	PHC635	29.9	15.0	mg/kg	02.13.18 19.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.13.18 19.27	
o-Terphenyl	84-15-1	88	%	70-135	02.13.18 19.27	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-1 0'**
Lab Sample Id: 576101-001

Matrix: Soil
Date Collected: 02.08.18 09.00

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040912

Date Prep: 02.13.18 10.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
Toluene	108-88-3	0.00203	0.00199	mg/kg	02.13.18 14.04		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 14.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 14.04	U	1
Total BTEX		0.00203	0.00199	mg/kg	02.13.18 14.04		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	80-120	02.13.18 14.04		
4-Bromofluorobenzene	460-00-4	119	%	80-120	02.13.18 14.04		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-1 1'
Lab Sample Id: 576101-002

Matrix: Soil
Date Collected: 02.08.18 09.02

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 20.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 20.27	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 20.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 20.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.13.18 20.27	
o-Terphenyl	84-15-1	94	%	70-135	02.13.18 20.27	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 13.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 13.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 13.21	
4-Bromofluorobenzene	460-00-4	105	%	80-120	02.13.18 13.21	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-1 2'
Lab Sample Id: 576101-003

Matrix: Soil
Date Collected: 02.08.18 09.04

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.13.18 20.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.13.18 20.47	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.13.18 20.47	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.13.18 20.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.13.18 20.47	
o-Terphenyl	84-15-1	99	%	70-135	02.13.18 20.47	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 13.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 13.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 13.41	
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.13.18 13.41	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-1 3'
Lab Sample Id: 576101-004

Matrix: Soil
Date Collected: 02.08.18 09.06

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 21.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 21.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 21.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 21.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.13.18 21.08	
o-Terphenyl	84-15-1	100	%	70-135	02.13.18 21.08	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.13.18 14.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.13.18 14.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	80-120	02.13.18 14.00	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 14.00	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-2 0'**
Lab Sample Id: 576101-005

Matrix: Soil
Date Collected: 02.08.18 09.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.14	4.95	mg/kg	02.19.18 20.09		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 08.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	3020	15.0	mg/kg	02.14.18 08.00		1
Oil Range Hydrocarbons (ORO)	PHCG2835	401	15.0	mg/kg	02.14.18 08.00		1
Total TPH	PHC635	3420	15.0	mg/kg	02.14.18 08.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.14.18 08.00	
o-Terphenyl	84-15-1	83	%	70-135	02.14.18 08.00	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 0'
Lab Sample Id: 576101-005

Matrix: Soil
Date Collected: 02.08.18 09.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
Toluene	108-88-3	0.00262	0.00202	mg/kg	02.13.18 13.02		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.13.18 13.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.13.18 13.02	U	1
Total BTEX		0.00262	0.00202	mg/kg	02.13.18 13.02		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	80-120	02.13.18 13.02		
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.13.18 13.02		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 1'
Lab Sample Id: 576101-006

Matrix: Soil
Date Collected: 02.08.18 09.22

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 21.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 21.48	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 21.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 21.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.13.18 21.48	
o-Terphenyl	84-15-1	101	%	70-135	02.13.18 21.48	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.13.18 18.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 18.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.13.18 18.04	
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.13.18 18.04	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 2'
Lab Sample Id: 576101-007

Matrix: Soil
Date Collected: 02.08.18 09.24

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 22.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 22.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 22.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 22.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.13.18 22.08	
o-Terphenyl	84-15-1	99	%	70-135	02.13.18 22.08	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 18.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 18.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.13.18 18.23	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 18.23	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-2 3'
Lab Sample Id: 576101-008

Matrix: Soil
Date Collected: 02.08.18 09.26

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 22.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 22.29	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 22.29	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 22.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.13.18 22.29	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 22.29	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.13.18 18.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.13.18 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	80-120	02.13.18 18.42	
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 18.42	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-3 0'**
Lab Sample Id: 576101-009

Matrix: Soil
Date Collected: 02.08.18 09.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	698	4.90	mg/kg	02.19.18 20.30		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	58.3	14.9	mg/kg	02.13.18 22.49		1
Diesel Range Organics (DRO)	C10C28DRO	66.3	14.9	mg/kg	02.13.18 22.49		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.13.18 22.49	U	1
Total TPH	PHC635	125	14.9	mg/kg	02.13.18 22.49		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-135	02.13.18 22.49		
o-Terphenyl	84-15-1	92	%	70-135	02.13.18 22.49		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-3 0'**
Lab Sample Id: 576101-009

Matrix: Soil
Date Collected: 02.08.18 09.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3041210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0279	0.00200	mg/kg	02.13.18 20.37		1
Toluene	108-88-3	3.42	0.201	mg/kg	02.15.18 12.46	D	100
Ethylbenzene	100-41-4	3.30	0.201	mg/kg	02.15.18 12.46	D	100
m,p-Xylenes	179601-23-1	0.784	0.00401	mg/kg	02.13.18 20.37		1
o-Xylene	95-47-6	0.332	0.00200	mg/kg	02.13.18 20.37		1
Total Xylenes	1330-20-7	1.12	0.00200	mg/kg	02.13.18 20.37		1
Total BTEX		7.86	0.00200	mg/kg	02.15.18 12.46		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	90	%	80-120	02.13.18 20.37		
4-Bromofluorobenzene	460-00-4	101	%	80-120	02.13.18 20.37		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 1'
Lab Sample Id: 576101-010

Matrix: Soil
Date Collected: 02.08.18 09.42

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041591

Date Prep: 02.19.18 14.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.90	4.90	mg/kg	02.19.18 20.35	U	1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 23.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 23.09	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 23.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 23.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.13.18 23.09	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 23.09	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 1'
Lab Sample Id: 576101-010

Matrix: Soil
Date Collected: 02.08.18 09.42

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 19.01	U	1
Toluene	108-88-3	0.00220	0.00199	mg/kg	02.13.18 19.01		1
Ethylbenzene	100-41-4	0.00467	0.00199	mg/kg	02.13.18 19.01		1
m,p-Xylenes	179601-23-1	0.00785	0.00398	mg/kg	02.13.18 19.01		1
o-Xylene	95-47-6	0.00671	0.00199	mg/kg	02.13.18 19.01		1
Total Xylenes	1330-20-7	0.0146	0.00199	mg/kg	02.13.18 19.01		1
Total BTEX		0.0214	0.00199	mg/kg	02.13.18 19.01		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.13.18 19.01		
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.13.18 19.01		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 2'
Lab Sample Id: 576101-011

Matrix: Soil
Date Collected: 02.08.18 09.44

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 00.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 00.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 00.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 00.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.14.18 00.11	
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 00.11	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.13.18 19.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.13.18 19.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 19.20	
4-Bromofluorobenzene	460-00-4	110	%	80-120	02.13.18 19.20	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 3'
Lab Sample Id: 576101-012

Matrix: Soil
Date Collected: 02.08.18 10.00

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	4.93	mg/kg	02.19.18 21.12		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 00.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	02.14.18 00.30		
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 00.30		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-3 3'
Lab Sample Id: 576101-012

Matrix: Soil
Date Collected: 02.08.18 10.00

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 19.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 19.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	80-120	02.13.18 19.40		
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.13.18 19.40		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 0'**
Lab Sample Id: 576101-013

Matrix: Soil
Date Collected: 02.08.18 10.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	764	5.00	mg/kg	02.19.18 21.28		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	97.1	74.9	mg/kg	02.14.18 00.51		5
Diesel Range Organics (DRO)	C10C28DRO	8670	74.9	mg/kg	02.14.18 00.51		5
Oil Range Hydrocarbons (ORO)	PHCG2835	1030	74.9	mg/kg	02.14.18 00.51		5
Total TPH	PHC635	9800	74.9	mg/kg	02.14.18 00.51		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	02.14.18 00.51		
o-Terphenyl	84-15-1	92	%	70-135	02.14.18 00.51		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 0'**
Lab Sample Id: 576101-013

Matrix: Soil
Date Collected: 02.08.18 10.02

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.14.18 09.30

Basis: Wet Weight

Seq Number: 3041092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
Toluene	108-88-3	0.00262	0.00201	mg/kg	02.14.18 14.58		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.14.18 14.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.14.18 14.58	U	1
Total BTEX		0.00262	0.00201	mg/kg	02.14.18 14.58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.14.18 14.58		
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.14.18 14.58		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 1'
Lab Sample Id: 576101-014

Matrix: Soil
Date Collected: 02.08.18 10.04

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	94.1	4.90	mg/kg	02.19.18 21.34		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 01.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 01.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 01.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.14.18 01.12	
o-Terphenyl	84-15-1	96	%	70-135	02.14.18 01.12	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 1'
Lab Sample Id: 576101-014

Matrix: Soil
Date Collected: 02.08.18 10.04

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.13.18 08.00

Basis: Wet Weight

Seq Number: 3040994

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 19.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 19.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.13.18 19.59		
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.13.18 19.59		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 2'
Lab Sample Id: 576101-015

Matrix: Soil
Date Collected: 02.08.18 10.06

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.14.18 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.14.18 01.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.14.18 01.32	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.14.18 01.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.14.18 01.32	
o-Terphenyl	84-15-1	101	%	70-135	02.14.18 01.32	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3040994

Date Prep: 02.13.18 08.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 20.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 20.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.13.18 20.18	
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.13.18 20.18	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 3'
Lab Sample Id: 576101-016

Matrix: Soil
Date Collected: 02.08.18 10.06

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 01.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 01.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 01.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 01.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.14.18 01.52	
o-Terphenyl	84-15-1	105	%	70-135	02.14.18 01.52	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.18 09.57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.18 09.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.14.18 09.57	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 09.57	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 4'
Lab Sample Id: 576101-017

Matrix: Soil
Date Collected: 02.08.18 10.08

Date Received: 02.12.18 07.50
Sample Depth: 4

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 02.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 02.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 02.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 02.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	02.14.18 02.13	
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 02.13	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.14.18 10.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.18 10.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	80-120	02.14.18 10.16	
1,4-Difluorobenzene	540-36-3	92	%	80-120	02.14.18 10.16	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-4 5'
Lab Sample Id: 576101-018

Matrix: Soil
Date Collected: 02.08.18 10.20

Date Received: 02.12.18 07.50
Sample Depth: 5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 02.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 02.35	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 02.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.14.18 02.35	
o-Terphenyl	84-15-1	94	%	70-135	02.14.18 02.35	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.14.18 10.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.14.18 10.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.14.18 10.35	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 10.35	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 6'**
Lab Sample Id: 576101-019

Matrix: Soil
Date Collected: 02.08.18 10.22

Date Received: 02.12.18 07.50
Sample Depth: 6

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 02.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 02.55	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 02.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 02.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.14.18 02.55	
o-Terphenyl	84-15-1	98	%	70-135	02.14.18 02.55	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.18 09.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.18 09.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.14.18 09.38	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.14.18 09.38	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 8'**
Lab Sample Id: 576101-020

Matrix: Soil
Date Collected: 02.08.18 10.24

Date Received: 02.12.18 07.50
Sample Depth: 8

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041035

Date Prep: 02.13.18 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.14.18 03.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.14.18 03.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.14.18 03.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.14.18 03.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.14.18 03.14	
o-Terphenyl	84-15-1	102	%	70-135	02.14.18 03.14	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.14.18 13.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.18 13.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	80-120	02.14.18 13.25	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.14.18 13.25	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-4 10'**
Lab Sample Id: 576101-021

Matrix: Soil
Date Collected: 02.08.18 10.50

Date Received: 02.12.18 07.50
Sample Depth: 10

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 13.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 13.24	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 13.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 13.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.13.18 13.24	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 13.24	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.14.18 13.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.14.18 13.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	80-120	02.14.18 13.42	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 13.42	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-5 0'**
Lab Sample Id: 576101-022

Matrix: Soil
Date Collected: 02.08.18 10.55

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1480	24.8	mg/kg	02.19.18 22.48		5

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 13.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	1060	15.0	mg/kg	02.13.18 13.44		1
Oil Range Hydrocarbons (ORO)	PHCG2835	162	15.0	mg/kg	02.13.18 13.44		1
Total TPH	PHC635	1220	15.0	mg/kg	02.13.18 13.44		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	02.13.18 13.44		
o-Terphenyl	84-15-1	81	%	70-135	02.13.18 13.44		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-5 0'**
Lab Sample Id: 576101-022

Matrix: Soil
Date Collected: 02.08.18 10.55

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.14.18 09.30

Basis: Wet Weight

Seq Number: 3041092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.14.18 14.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.14.18 14.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	80-120	02.14.18 14.01		
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.14.18 14.01		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 1'
Lab Sample Id: 576101-023

Matrix: Soil
Date Collected: 02.08.18 10.57

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.5	4.90	mg/kg	02.19.18 23.04		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.13.18 14.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.13.18 14.45	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 14.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.13.18 14.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.13.18 14.45	
o-Terphenyl	84-15-1	95	%	70-135	02.13.18 14.45	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 1'
Lab Sample Id: 576101-023

Matrix: Soil
Date Collected: 02.08.18 10:57

Date Received: 02.12.18 07:50
Sample Depth: 1

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.14.18 09:30

Basis: Wet Weight

Seq Number: 3041092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.14.18 14.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.18 14.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.14.18 14.20		
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.14.18 14.20		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 2'
Lab Sample Id: 576101-024

Matrix: Soil
Date Collected: 02.08.18 10.59

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041032

Date Prep: 02.13.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.13.18 15.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.13.18 15.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.13.18 15.05	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.13.18 15.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.13.18 15.05	
o-Terphenyl	84-15-1	98	%	70-135	02.13.18 15.05	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041092

Date Prep: 02.14.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.18 14.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.18 14.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	80-120	02.14.18 14.39	
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.14.18 14.39	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-5 3'
Lab Sample Id: 576101-025

Matrix: Soil
Date Collected: 02.08.18 11.02

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.18 10.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.18 10.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.15.18 10.40	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.18 10.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	02.15.18 10.40	
o-Terphenyl	84-15-1	117	%	70-135	02.15.18 10.40	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.15.18 14.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.15.18 14.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.15.18 14.37	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 14.37	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-6 0'**
Lab Sample Id: 576101-026

Matrix: Soil
Date Collected: 02.08.18 11.30

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300
Tech: OJS
Analyst: OJS
Seq Number: 3041601

Date Prep: 02.19.18 18.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	61.1	4.97	mg/kg	02.19.18 23.20		1

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 12.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	24.1	15.0	mg/kg	02.15.18 12.01		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 12.01	U	1
Total TPH	PHC635	24.1	15.0	mg/kg	02.15.18 12.01		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	101	%	70-135	02.15.18 12.01		
o-Terphenyl	84-15-1	101	%	70-135	02.15.18 12.01		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-6 0'**
Lab Sample Id: 576101-026

Matrix: Soil
Date Collected: 02.08.18 11.30

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
Toluene	108-88-3	0.00250	0.00200	mg/kg	02.15.18 10.15		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.15.18 10.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 10.15	U	1
Total BTEX		0.00250	0.00200	mg/kg	02.15.18 10.15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	80-120	02.15.18 10.15		
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 10.15		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-6 1'
Lab Sample Id: 576101-027

Matrix: Soil
Date Collected: 02.08.18 11.32

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.18 12.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.18 12.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.15.18 12.28	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.18 12.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	02.15.18 12.28	
o-Terphenyl	84-15-1	108	%	70-135	02.15.18 12.28	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.15.18 14.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.15.18 14.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.15.18 14.56	
4-Bromofluorobenzene	460-00-4	117	%	80-120	02.15.18 14.56	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-6 2'
Lab Sample Id: 576101-028

Matrix: Soil
Date Collected: 02.08.18 11.34

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 12.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 12.54	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 12.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 12.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.15.18 12.54	
o-Terphenyl	84-15-1	100	%	70-135	02.15.18 12.54	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.15.18 12.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.15.18 12.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.15.18 12.27	
4-Bromofluorobenzene	460-00-4	112	%	80-120	02.15.18 12.27	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-6 3'
Lab Sample Id: 576101-029

Matrix: Soil
Date Collected: 02.08.18 11.36

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 13.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 13.21	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 13.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 13.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.15.18 13.21	
o-Terphenyl	84-15-1	103	%	70-135	02.15.18 13.21	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.15.18 15.15	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.15.18 15.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	80-120	02.15.18 15.15	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.15.18 15.15	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-7 0'**
Lab Sample Id: 576101-030

Matrix: Soil
Date Collected: 02.08.18 11.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041689

Date Prep: 02.20.18 09.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.90	4.90	mg/kg	02.20.18 10.10	U	1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 13.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	26.5	15.0	mg/kg	02.15.18 13.46		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 13.46	U	1
Total TPH	PHC635	26.5	15.0	mg/kg	02.15.18 13.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	02.15.18 13.46	
o-Terphenyl	84-15-1	98	%	70-135	02.15.18 13.46	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-7 0'**
Lab Sample Id: 576101-030

Matrix: Soil
Date Collected: 02.08.18 11.40

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.15.18 09.30

Basis: Wet Weight

Seq Number: 3041210

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.15.18 15.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.15.18 15.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 15.32		
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.15.18 15.32		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-7 1'
Lab Sample Id: 576101-031

Matrix: Soil
Date Collected: 02.08.18 12.00

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 14.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 14.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 14.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 14.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	02.15.18 14.12	
o-Terphenyl	84-15-1	106	%	70-135	02.15.18 14.12	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.15.18 15.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.15.18 15.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.15.18 15.52	
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.15.18 15.52	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-7 2'
Lab Sample Id: 576101-032

Matrix: Soil
Date Collected: 02.08.18 12.02

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 14.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 14.40	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 14.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 14.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.15.18 14.40	
o-Terphenyl	84-15-1	104	%	70-135	02.15.18 14.40	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.15.18 16.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.15.18 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	80-120	02.15.18 16.11	
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.15.18 16.11	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-7 3'
Lab Sample Id: 576101-033

Matrix: Soil
Date Collected: 02.08.18 12.04

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.18 15.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.18 15.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.15.18 15.06	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.18 15.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	02.15.18 15.06	
o-Terphenyl	84-15-1	108	%	70-135	02.15.18 15.06	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.15.18 16.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.15.18 16.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	80-120	02.15.18 16.30	
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.15.18 16.30	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 0'**
Lab Sample Id: 576101-034

Matrix: Soil
Date Collected: 02.08.18 12.20

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: Chloride by EPA 300

Tech: OJS

Analyst: OJS

Seq Number: 3041689

Date Prep: 02.20.18 09.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.6	4.92	mg/kg	02.20.18 10.42		1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 15.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	17.8	15.0	mg/kg	02.15.18 15.32		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 15.32	U	1
Total TPH	PHC635	17.8	15.0	mg/kg	02.15.18 15.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.15.18 15.32	
o-Terphenyl	84-15-1	102	%	70-135	02.15.18 15.32	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 0'**
Lab Sample Id: 576101-034

Matrix: Soil
Date Collected: 02.08.18 12.20

Date Received: 02.12.18 07.50
Sample Depth: 0

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041210

Date Prep: 02.15.18 09.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.15.18 17.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.15.18 17.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	80-120	02.15.18 17.00		
1,4-Difluorobenzene	540-36-3	89	%	80-120	02.15.18 17.00		



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 1'**
Lab Sample Id: 576101-035

Matrix: Soil
Date Collected: 02.08.18 12.22

Date Received: 02.12.18 07.50
Sample Depth: 1

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 16.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 16.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 16.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 16.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.15.18 16.51	
o-Terphenyl	84-15-1	104	%	70-135	02.15.18 16.51	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041241

Date Prep: 02.15.18 13.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.16.18 00.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.16.18 00.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.16.18 00.01	
4-Bromofluorobenzene	460-00-4	90	%	80-120	02.16.18 00.01	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: T-8 2'
Lab Sample Id: 576101-036

Matrix: Soil
Date Collected: 02.08.18 12.24

Date Received: 02.12.18 07.50
Sample Depth: 2

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 17.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 17.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 17.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 17.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	02.15.18 17.17	
o-Terphenyl	84-15-1	110	%	70-135	02.15.18 17.17	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041241

Date Prep: 02.15.18 13.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.16.18 00.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.16.18 00.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	80-120	02.16.18 00.39	
1,4-Difluorobenzene	540-36-3	87	%	80-120	02.16.18 00.39	



Certificate of Analytical Results 576101



COG Operating LLC, Artesia, NM

Stealth Fed Com #4H

Sample Id: **T-8 3'**
Lab Sample Id: 576101-037

Matrix: Soil
Date Collected: 02.08.18 12.26

Date Received: 02.12.18 07.50
Sample Depth: 3

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3041217

Date Prep: 02.15.18 08.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.18 17.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.18 17.44	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.15.18 17.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.18 17.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.15.18 17.44	
o-Terphenyl	84-15-1	96	%	70-135	02.15.18 17.44	

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3041241

Date Prep: 02.15.18 13.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.16.18 00.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.16.18 00.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.16.18 00.20	
4-Bromofluorobenzene	460-00-4	95	%	80-120	02.16.18 00.20	

- 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

+ 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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QC Summary 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: Chloride by EPA 300

Seq Number: 3041591

MB Sample Id: 7639422-1-BLK

Matrix: Solid

LCS Sample Id: 7639422-1-BKS

Prep Method: E300P

Date Prep: 02.19.18

LCSD Sample Id: 7639422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	267	250	267	107	274	110	90-110	3	20	mg/kg	02.19.18 18:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3041601

MB Sample Id: 7639425-1-BLK

Matrix: Solid

LCS Sample Id: 7639425-1-BKS

Prep Method: E300P

Date Prep: 02.19.18

LCSD Sample Id: 7639425-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	262	250	262	105	274	110	90-110	4	20	mg/kg	02.19.18 21:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3041689

MB Sample Id: 7639426-1-BLK

Matrix: Solid

LCS Sample Id: 7639426-1-BKS

Prep Method: E300P

Date Prep: 02.20.18

LCSD Sample Id: 7639426-1-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	264	106	264	106	90-110	0	20	mg/kg	02.20.18 09:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3041591

Parent Sample Id: 576035-010

Matrix: Soil

MS Sample Id: 576035-010 S

Prep Method: E300P

Date Prep: 02.19.18

MSD Sample Id: 576035-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	54.5	246	306	102	344	118	90-110	12	20	mg/kg	02.19.18 18:23	X

Analytical Method: Chloride by EPA 300

Seq Number: 3041601

Parent Sample Id: 576101-012

Matrix: Soil

MS Sample Id: 576101-012 S

Prep Method: E300P

Date Prep: 02.19.18

MSD Sample Id: 576101-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.7	247	278	108	293	114	90-110	5	20	mg/kg	02.19.18 21:18	X

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: Chloride by EPA 300

Seq Number: 3041689

Parent Sample Id: 576101-030

Matrix: Soil

MS Sample Id: 576101-030 S

Prep Method: E300P

Date Prep: 02.20.18

MSD Sample Id: 576101-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.90	245	255	104	256	104	90-110	0	20	mg/kg	02.20.18 10:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3041689

Parent Sample Id: 576102-004

Matrix: Soil

MS Sample Id: 576102-004 S

Prep Method: E300P

Date Prep: 02.20.18

MSD Sample Id: 576102-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.90	245	257	105	257	105	90-110	0	20	mg/kg	02.20.18 11:29	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041032

MB Sample Id: 7639062-1-BLK

Matrix: Solid

LCS Sample Id: 7639062-1-BKS

Prep Method: TX1005P

Date Prep: 02.13.18

LCSD Sample Id: 7639062-1-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 (GRO)	<15.0	1000	1050	105	913	91	70-135	14	35	mg/kg	02.13.18 09:22	
Diesel Range Organics (DRO)	<15.0	1000	1150	115	985	99	70-135	15	35	mg/kg	02.13.18 09:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		122		106		70-135	%	02.13.18 09:22
o-Terphenyl	100		123		104		70-135	%	02.13.18 09:22

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041035

MB Sample Id: 7639063-1-BLK

Matrix: Solid

LCS Sample Id: 7639063-1-BKS

Prep Method: TX1005P

Date Prep: 02.13.18

LCSD Sample Id: 7639063-1-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 (GRO)	<15.0	1000	936	94	953	95	70-135	2	35	mg/kg	02.13.18 18:47	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1050	105	70-135	1	35	mg/kg	02.13.18 18:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		111		110		70-135	%	02.13.18 18:47
o-Terphenyl	91		112		112		70-135	%	02.13.18 18:47

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * | (C-E) / (C+E) |$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041217

MB Sample Id: 7639225-1-BLK

Matrix: Solid

LCS Sample Id: 7639225-1-BKS

Prep Method: TX1005P

Date Prep: 02.15.18

LCSD Sample Id: 7639225-1-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 (GRO)	<15.0	1000	999	100	1080	108	70-135	8	35	mg/kg	02.15.18 09:49	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1200	120	70-135	10	35	mg/kg	02.15.18 09:49	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	92		122		124		70-135	%	02.15.18 09:49			
o-Terphenyl	94		121		130		70-135	%	02.15.18 09:49			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041032

Parent Sample Id: 576035-001

Matrix: Soil

MS Sample Id: 576035-001 S

Prep Method: TX1005P

Date Prep: 02.13.18

MSD Sample Id: 576035-001 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 (GRO)	8940	1000	8750	0	9300	36	70-135	6	35	mg/kg	02.14.18 04:18	X
Diesel Range Organics (DRO)	8360	1000	9490	113	9860	150	70-135	4	35	mg/kg	02.14.18 04:18	X
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			106		100		70-135	%	02.14.18 04:18			
o-Terphenyl			101		101		70-135	%	02.14.18 04:18			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041035

Parent Sample Id: 576101-001

Matrix: Soil

MS Sample Id: 576101-001 S

Prep Method: TX1005P

Date Prep: 02.13.18

MSD Sample Id: 576101-001 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 (GRO)	<15.0	999	999	100	1080	108	70-135	8	35	mg/kg	02.13.18 19:47	
Diesel Range Organics (DRO)	29.9	999	1090	106	1180	115	70-135	8	35	mg/kg	02.13.18 19:47	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			113		120		70-135	%	02.13.18 19:47			
o-Terphenyl			103		114		70-135	%	02.13.18 19:47			

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041217

Parent Sample Id: 576101-025

Matrix: Soil

MS Sample Id: 576101-025 S

Prep Method: TX1005P

Date Prep: 02.15.18

MSD Sample Id: 576101-025 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 (GRO)	<15.0	998	921	92	1010	101	70-135	9	35	mg/kg	02.15.18 11:08	
Diesel Range Organics (DRO)	<15.0	998	1040	104	1120	112	70-135	7	35	mg/kg	02.15.18 11:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		117		70-135	%	02.15.18 11:08
o-Terphenyl	105		112		70-135	%	02.15.18 11:08

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040994

MB Sample Id: 7639094-1-BLK

Matrix: Solid

LCS Sample Id: 7639094-1-BKS

Prep Method: SW5030B

Date Prep: 02.13.18

LCSD Sample Id: 7639094-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0920	93	0.0903	90	70-130	2	35	mg/kg	02.13.18 10:44	
Toluene	<0.00199	0.0994	0.0969	97	0.0956	96	70-130	1	35	mg/kg	02.13.18 10:44	
Ethylbenzene	<0.00199	0.0994	0.108	109	0.106	106	71-129	2	35	mg/kg	02.13.18 10:44	
m,p-Xylenes	<0.00398	0.199	0.212	107	0.210	105	70-135	1	35	mg/kg	02.13.18 10:44	
o-Xylene	<0.00199	0.0994	0.103	104	0.103	103	71-133	0	35	mg/kg	02.13.18 10:44	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		84		80-120	%	02.13.18 10:44
4-Bromofluorobenzene	108		114		118		80-120	%	02.13.18 10:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040912

MB Sample Id: 7639041-1-BLK

Matrix: Solid

LCS Sample Id: 7639041-1-BKS

Prep Method: SW5030B

Date Prep: 02.13.18

LCSD Sample Id: 7639041-1-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	0.0990	0.0991	100	0.0885	89	70-130	11	35	mg/kg	02.13.18 11:26	
Toluene	<0.00198	0.0990	0.0965	97	0.0869	87	70-130	10	35	mg/kg	02.13.18 11:26	
Ethylbenzene	<0.00198	0.0990	0.100	101	0.0903	90	71-129	10	35	mg/kg	02.13.18 11:26	
m,p-Xylenes	<0.00396	0.198	0.195	98	0.176	88	70-135	10	35	mg/kg	02.13.18 11:26	
o-Xylene	<0.00198	0.0990	0.0993	100	0.0899	90	71-133	10	35	mg/kg	02.13.18 11:26	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		92		80-120	%	02.13.18 11:26
4-Bromofluorobenzene	112		119		115		80-120	%	02.13.18 11:26

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * | (C-E) / (C+E) |$
 $[D] = 100 * (C) / [B]$

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
Stealth Fed Com #4H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041092

MB Sample Id: 7639132-1-BLK

Matrix: Solid

LCS Sample Id: 7639132-1-BKS

Prep Method: SW5030B

Date Prep: 02.14.18

LCSD Sample Id: 7639132-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0899	90	0.0870	86	70-130	3	35	mg/kg	02.14.18 07:24	
Toluene	<0.00201	0.100	0.0963	96	0.0927	92	70-130	4	35	mg/kg	02.14.18 07:24	
Ethylbenzene	<0.00201	0.100	0.109	109	0.104	103	71-129	5	35	mg/kg	02.14.18 07:24	
m,p-Xylenes	<0.00402	0.201	0.215	107	0.205	101	70-135	5	35	mg/kg	02.14.18 07:24	
o-Xylene	<0.00201	0.100	0.106	106	0.101	100	71-133	5	35	mg/kg	02.14.18 07:24	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	83		83		82		80-120			%	02.14.18 07:24	
4-Bromofluorobenzene	105		117		115		80-120			%	02.14.18 07:24	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041210

MB Sample Id: 7639222-1-BLK

Matrix: Solid

LCS Sample Id: 7639222-1-BKS

Prep Method: SW5030B

Date Prep: 02.15.18

LCSD Sample Id: 7639222-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0891	89	0.0852	85	70-130	4	35	mg/kg	02.15.18 08:01	
Toluene	<0.00200	0.0998	0.0944	95	0.0894	89	70-130	5	35	mg/kg	02.15.18 08:01	
Ethylbenzene	<0.00200	0.0998	0.105	105	0.0998	100	71-129	5	35	mg/kg	02.15.18 08:01	
m,p-Xylenes	<0.00399	0.200	0.208	104	0.197	99	70-135	5	35	mg/kg	02.15.18 08:01	
o-Xylene	<0.00200	0.0998	0.102	102	0.0965	97	71-133	6	35	mg/kg	02.15.18 08:01	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1,4-Difluorobenzene	82		86		82		80-120	%	02.15.18 08:01			
4-Bromofluorobenzene	96		112		114		80-120	%	02.15.18 08:01			

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041241

MB Sample Id: 7639243-1-BLK

Matrix: Solid

LCS Sample Id: 7639243-1-BKS

Prep Method: SW5030B

Date Prep: 02.15.18

LCSD Sample Id: 7639243-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0891	88	0.0855	86	70-130	4	35	mg/kg	02.15.18 17:57	
Toluene	<0.00202	0.101	0.0937	93	0.0893	89	70-130	5	35	mg/kg	02.15.18 17:57	
Ethylbenzene	<0.00202	0.101	0.102	101	0.0996	100	71-129	2	35	mg/kg	02.15.18 17:57	
m,p-Xylenes	<0.00403	0.202	0.200	99	0.195	98	70-135	3	35	mg/kg	02.15.18 17:57	
o-Xylene	<0.00202	0.101	0.0991	98	0.0966	97	71-133	3	35	mg/kg	02.15.18 17:57	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1,4-Difluorobenzene	84		92		88		80-120	%	02.15.18 17:57			
4-Bromofluorobenzene	97		108		107		80-120	%	02.15.18 17:57			

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery $[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$ LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD ResultMS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



QC Summary 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040994

Parent Sample Id: 576101-005

Matrix: Soil

MS Sample Id: 576101-005 S

Prep Method: SW5030B

Date Prep: 02.13.18

MSD Sample Id: 576101-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0542	54	0.0655	65	70-130	19	35	mg/kg	02.13.18 16:39	X
Toluene	0.00262	0.100	0.0388	36	0.0551	52	70-130	35	35	mg/kg	02.13.18 16:39	X
Ethylbenzene	<0.00201	0.100	0.0376	38	0.0450	45	71-129	18	35	mg/kg	02.13.18 16:39	X
m,p-Xylenes	<0.00402	0.201	0.0675	34	0.0848	42	70-135	23	35	mg/kg	02.13.18 16:39	X
o-Xylene	<0.00201	0.100	0.0389	39	0.0452	45	71-133	15	35	mg/kg	02.13.18 16:39	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		87		80-120	%	02.13.18 16:39
4-Bromofluorobenzene	116		109		80-120	%	02.13.18 16:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040912

Parent Sample Id: 576101-001

Matrix: Soil

MS Sample Id: 576101-001 S

Prep Method: SW5030B

Date Prep: 02.13.18

MSD Sample Id: 576101-001 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	0.0994	0.0829	83	0.0930	92	70-130	11	35	mg/kg	02.13.18 12:41	
Toluene	0.00203	0.0994	0.0440	42	0.0441	42	70-130	0	35	mg/kg	02.13.18 12:41	X
Ethylbenzene	<0.00199	0.0994	0.0437	44	0.0367	36	71-129	17	35	mg/kg	02.13.18 12:41	X
m,p-Xylenes	<0.00398	0.199	0.0860	43	0.0666	33	70-135	25	35	mg/kg	02.13.18 12:41	X
o-Xylene	<0.00199	0.0994	0.0430	43	0.0329	33	71-133	27	35	mg/kg	02.13.18 12:41	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		83		80-120	%	02.13.18 12:41
4-Bromofluorobenzene	81		80		80-120	%	02.13.18 12:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041092

Parent Sample Id: 576101-019

Matrix: Soil

MS Sample Id: 576101-019 S

Prep Method: SW5030B

Date Prep: 02.14.18

MSD Sample Id: 576101-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0732	72	0.0729	73	70-130	0	35	mg/kg	02.14.18 08:03	
Toluene	<0.00202	0.101	0.0769	76	0.0761	76	70-130	1	35	mg/kg	02.14.18 08:03	
Ethylbenzene	<0.00202	0.101	0.0848	84	0.0848	85	71-129	0	35	mg/kg	02.14.18 08:03	
m,p-Xylenes	<0.00403	0.202	0.168	83	0.167	84	70-135	1	35	mg/kg	02.14.18 08:03	
o-Xylene	<0.00202	0.101	0.0827	82	0.0817	82	71-133	1	35	mg/kg	02.14.18 08:03	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		83		80-120	%	02.14.18 08:03
4-Bromofluorobenzene	119		115		80-120	%	02.14.18 08:03

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

$[D] = 100 * (C-A) / B$
 $RPD = 200 * | (C-E) / (C+E) |$
 $[D] = 100 * (C) / [B]$

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 576101

COG Operating LLC Stealth Fed Com #4H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041210

Parent Sample Id: 576101-026

Matrix: Soil

MS Sample Id: 576101-026 S

Prep Method: SW5030B

Date Prep: 02.15.18

MSD Sample Id: 576101-026 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0733	73	0.0775	78	70-130	6	35	mg/kg	02.15.18 08:39	
Toluene	0.00250	0.100	0.0772	75	0.0819	80	70-130	6	35	mg/kg	02.15.18 08:39	
Ethylbenzene	<0.00201	0.100	0.0809	81	0.0867	87	71-129	7	35	mg/kg	02.15.18 08:39	
m,p-Xylenes	<0.00402	0.201	0.159	79	0.171	86	70-135	7	35	mg/kg	02.15.18 08:39	
o-Xylene	<0.00201	0.100	0.0804	80	0.0845	85	71-133	5	35	mg/kg	02.15.18 08:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		87		80-120	%	02.15.18 08:39
4-Bromofluorobenzene	113		113		80-120	%	02.15.18 08:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041241

Parent Sample Id: 576108-001

Matrix: Soil

MS Sample Id: 576108-001 S

Prep Method: SW5030B

Date Prep: 02.15.18

MSD Sample Id: 576108-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0801	80	0.0788	79	70-130	2	35	mg/kg	02.15.18 18:35	
Toluene	<0.00200	0.0998	0.0833	83	0.0810	81	70-130	3	35	mg/kg	02.15.18 18:35	
Ethylbenzene	<0.00200	0.0998	0.0876	88	0.0852	85	71-129	3	35	mg/kg	02.15.18 18:35	
m,p-Xylenes	<0.00399	0.200	0.171	86	0.166	83	70-135	3	35	mg/kg	02.15.18 18:35	
o-Xylene	<0.00200	0.0998	0.0850	85	0.0843	84	71-133	1	35	mg/kg	02.15.18 18:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		90		80-120	%	02.15.18 18:35
4-Bromofluorobenzene	106		107		80-120	%	02.15.18 18:35

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$

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

Page 1 of 4

Phoenix, Arizona (480-355-0900)

Xenco Quote #	Xenco Job #
	576101

[illegible]

be enforced unless previously negotiated under a fully executed client contract.



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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 2 of 4

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes													
Company Name / Branch: COG Operating LLC		Project Name/Number: <u>Staltn Fed com # 44</u>																	
Company Address: 2407 Pecos Ave, Artesia NM 88210		Project Location: <u>Lea Co, NM</u>																	
Email: <u>dhree2@concho.com</u>		Invoice To: COG Operating LLC																	
slhiteck@concho.com		Attn: Robert McNeill																	
63742@concho.com, mskel@concho.com		600 W. Illinois Ave.																	
Project Contact: <u>S. Hitchcock</u>		Midland TX, 79701																	
Sample's Name: <u>S. Hitchcock</u>		PO Number:																	
No. Field ID / Point of Collection		Collection		Number of preserved bottles		Notes:													
		Sample Depth	Date	Time	Melox	# of bottles	HCI	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	TOLE	TPH Extended	BTEX	CHLORIDES	Field Comments	
1	T-3 2	2	2/18	9:44	5	1									X	X	X		
2	T-3 3	3		9:46	5	1									X	X	X		
3	T-4 0	0		10:00	5	1									X	X	X		
4	T-4 1	1		10:02	5	1									X	X	X		
5	T-4 2	2		10:04	5	1									X	X	X		
6	T-4 3	3		10:06	5	1									X	X	X		
7	T-4 4	4		10:08	5	1									X	X	X		
8	T-4 5	5		10:20	5	1									X	X	X		
9	T-4 6	6		10:22	5	1									X	X	X		
10	T-4 8	8		10:24	5	1									X	X	X		
Turnaround Time (Business days)																			
☐ Same Day TAT		☐ 5 Day TAT																	
☐ Next Day EMERGENCY		☐ 7 Day TAT																	
☐ 2 Day EMERGENCY		☒ Contract TAT																	
☐ 3 Day EMERGENCY																			
TAT Starts Day received by Lab, if received by 5:00 pm																			
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Relinquished By:		Date Time:		Relinquished By:			
1. <u>Sheldon Hix</u>		2/18 1:00		1. <u>Sheldon Hix</u>		2/18 1:00		2. <u>Sheldon Hix</u>		2/18 1:00		3. <u>Sheldon Hix</u>		2/18 1:00		4. <u>Sheldon Hix</u>			
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Relinquished By:		Date Time:		Relinquished By:			
3																			
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Relinquished By:		Date Time:		Relinquished By:			
5																			
Custody Seal #		Preserved where applicable		On Ice		Cooler Temp.		Thermo. Corr. Factor											
5																			

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

Temp: 18
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 16
IR ID: R-8

stop at if S 600 mg/m2

Page 4 of 4

Setting the Standard since 1990
Stafford, Texas (281-240-4200)
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www.xenco.com										Xenco Quote #	Xenco Job #	576101								
Client / Reporting Information			Project Information			Analytical Information				Matrix Codes										
Company Name / Branch: COG Operating LLC			Project Name/Number: 576101 Fed #4H							W = Water S = Soil/Sed/Solid GW = Ground Water DW = Drinking Water P = Product SW = Surface water SL = Sludge OW = Ocean/Sea Water WI = Waste O = Oil WW = Waste Water A = Air										
Company Address: 2407 Peoria Ave, Artesia NM 88210			Project Location: Leach Co, NM																	
Email: dthe2@concho.com sllitchcock@concho.com cgray@concho.com, thaskel@concho.com			Invoice To: COG Operating LLC Attn: Robert McNeill 600 W. Illinois Ave. Midland TX, 79701																	
Phone No: 575-746-2010			Po Number:																	
Project Contact: S. Hitchcock																				
Sampler's Name: S. Hitchcock																				
No.	Field ID / Point of Collection	Collection	Sample Depth	Date	Time	Mix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MeOH	None	TPH Extended	BTEX	CHLORIDES	Field Comments	
1	T-7 1'		1	2/8/18	12:00	5	1									X	X	X		
2	T-7 2'		2		12:02	5	1									X	X	X		
3	T-7 3'		3		12:04	5	1									X	X	X		
4	T-8 0'		0		12:06	5	1									X	X	X		
5	T-8 1'		1		12:22	5	1									X	X	X		
6	T-8 2'		2		12:24	5	1									X	X	X		
7	T-8 3'		3		12:24	5	1									X	X	X		
8																				
9																				
10																				
Turnaround Time (Business days)			Data Deliverable Information			Notes:														
☐ Same Day TAT			☐ 5 Day TAT			☐ Level II Std QC			☐ Level IV (Full Data Pkg /raw data)											
☐ Next Day EMERGENCY			☐ 7 Day TAT			☐ Level III Std QC+ Forms			☐ TRRP Level IV											
☐ 2 Day EMERGENCY			☒ Contract TAT			☐ Level 3 (CLP Forms)			☐ UST / RG 411											
☐ 3 Day EMERGENCY						☐ TRRP Checklist														
TAT Starts Day received by Lab, if received by 5:00 pm																				
Relinquished by Sampler:			Date Time:			Received By:			Date Time:			Relinquished By:			Date Time:			Received By:		
Relinquished by:			2/9/18 1:00			1. dual bottles			2/9/18			Relinquished By:			2/9/18			Received By:		
3			Date Time:			3			Custody Seal #			4			Preserved where applicable			On Ice		
5			Date Time:			5			Custody Seal #			4			Preserved where applicable			Cooler Temp.		
			Date Time:			5			Custody Seal #			4			Preserved where applicable			Thermo, Corr. Factor		

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



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: COG Operating LLC

Date/ Time Received: 02/12/2018 07:50:00 AM

Work Order #: 576101

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)?	1.6
#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
#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

Missing samples 025-037

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Connie Hernandez

Date: 02/12/2018

Checklist reviewed by:

Jessica Kramer

Date: 02/12/2018



Certificate of Analysis Summary 584478

COG Operating LLC, Artesia, NM

Project Name: Stealth Federal #4



Project Id:

Contact: Sheldon Hitchcock

Project Location:

Date Received in Lab: Wed May-02-18 10:15 am

Report Date: 03-MAY-18

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	584478-001	584478-002	584478-003	584478-004		
	Field Id:	North Sidewall	South Sidewall	East Sidewall	West Sidewall		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Apr-30-18 10:30	Apr-30-18 10:30	Apr-30-18 10:30	Apr-30-18 10:30		
BTEX by EPA 8021B	Extracted:	May-02-18 10:20	May-02-18 10:20	May-02-18 10:20	May-02-18 10:20		
	Analyzed:	May-02-18 12:28	May-02-18 12:07	May-02-18 11:24	May-02-18 11:45		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202		
	Toluene	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202		
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202		
m,p-Xylenes		<0.00397 0.00397	<0.00398 0.00398	<0.00402 0.00402	<0.00403 0.00403		
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202		
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202		
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202		
Chloride by EPA 300	Extracted:	May-02-18 13:00	May-02-18 13:00	May-02-18 13:00	May-02-18 13:00		
	Analyzed:	May-02-18 17:05	May-02-18 17:11	May-02-18 16:47	May-02-18 17:17		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Chloride	<5.00 5.00	316 5.00	73.5 4.95	<5.00 5.00		
TPH By SW8015 Mod	Extracted:	May-02-18 12:00	May-02-18 12:00	May-02-18 12:00	May-02-18 12:00		
	Analyzed:	May-02-18 22:32	May-02-18 22:59	May-02-18 23:25	May-02-18 23:52		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
	Gasoline Range Hydrocarbons (GRO)	<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0		
	Diesel Range Organics (DRO)	<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0		
Oil Range Hydrocarbons (ORO)		<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 15.0		
Total TPH		<14.9 14.9	<15.0 15.0	<14.9 14.9	<15.0 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 - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 584478

for COG Operating LLC

Project Manager: Sheldon Hitchcock

Stealth Federal #4

03-MAY-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-18-25), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (T104704295-17-16), 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 (T104704400-18-14)

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)

Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)



03-MAY-18

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

Reference: XENCO Report No(s): **584478**
Stealth Federal #4
Project Address:

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) 584478. 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. 584478 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

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Sample Cross Reference 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Sidewall	S	04-30-18 10:30		584478-001
South Sidewall	S	04-30-18 10:30		584478-002
East Sidewall	S	04-30-18 10:30		584478-003
West Sidewall	S	04-30-18 10:30		584478-004



CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Stealth Federal #4

Project ID:

Work Order Number(s): 584478

Report Date: 03-MAY-18

Date Received: 05/02/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3048631 BTEX by EPA 8021B

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



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **North Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-001

Date Collected: 04.30.18 10.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 05.02.18 13.00

Basis: Wet Weight

Seq Number: 3048766

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	05.02.18 17.05	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.02.18 12.00

Basis: Wet Weight

Seq Number: 3048781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	05.02.18 22.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	05.02.18 22.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	05.02.18 22.32	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	05.02.18 22.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.02.18 22.32	
o-Terphenyl	84-15-1	96	%	70-135	05.02.18 22.32	



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **North Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-001

Date Collected: 04.30.18 10.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.02.18 10.20

Basis: Wet Weight

Seq Number: 3048631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.02.18 12.28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.02.18 12.28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.02.18 12.28	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.02.18 12.28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.02.18 12.28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.02.18 12.28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.02.18 12.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.02.18 12.28		
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.02.18 12.28		



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **South Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-002

Date Collected: 04.30.18 10.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 05.02.18 13.00

Basis: Wet Weight

Seq Number: 3048766

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	316	5.00	mg/kg	05.02.18 17.11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.02.18 12.00

Basis: Wet Weight

Seq Number: 3048781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.02.18 22.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.02.18 22.59	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.02.18 22.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.02.18 22.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	05.02.18 22.59	
o-Terphenyl	84-15-1	96	%	70-135	05.02.18 22.59	



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **South Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-002

Date Collected: 04.30.18 10.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.02.18 10.20

Basis: Wet Weight

Seq Number: 3048631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.02.18 12.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.02.18 12.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.02.18 12.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.02.18 12.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.02.18 12.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.02.18 12.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.02.18 12.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	05.02.18 12.07		
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.02.18 12.07		



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **East Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-003

Date Collected: 04.30.18 10.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 05.02.18 13.00

Basis: Wet Weight

Seq Number: 3048766

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	73.5	4.95	mg/kg	05.02.18 16.47		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.02.18 12.00

Basis: Wet Weight

Seq Number: 3048781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	05.02.18 23.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	05.02.18 23.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	05.02.18 23.25	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	05.02.18 23.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.02.18 23.25	
o-Terphenyl	84-15-1	99	%	70-135	05.02.18 23.25	



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **East Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-003

Date Collected: 04.30.18 10.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.02.18 10.20

Basis: Wet Weight

Seq Number: 3048631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.02.18 11.24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.02.18 11.24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.02.18 11.24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.02.18 11.24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.02.18 11.24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.02.18 11.24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.02.18 11.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.02.18 11.24		
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.02.18 11.24		



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **West Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-004

Date Collected: 04.30.18 10.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 05.02.18 13.00

Basis: Wet Weight

Seq Number: 3048766

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	05.02.18 17.17	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.02.18 12.00

Basis: Wet Weight

Seq Number: 3048781

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.02.18 23.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.02.18 23.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.02.18 23.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.02.18 23.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	05.02.18 23.52	
o-Terphenyl	84-15-1	90	%	70-135	05.02.18 23.52	



Certificate of Analytical Results 584478



COG Operating LLC, Artesia, NM

Stealth Federal #4

Sample Id: **West Sidewall**

Matrix: Soil

Date Received: 05.02.18 10.15

Lab Sample Id: 584478-004

Date Collected: 04.30.18 10.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.02.18 10.20

Basis: Wet Weight

Seq Number: 3048631

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.02.18 11.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.02.18 11.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.02.18 11.45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.02.18 11.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.02.18 11.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.02.18 11.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.02.18 11.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.02.18 11.45		
1,4-Difluorobenzene	540-36-3	91	%	70-130	05.02.18 11.45		

- 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



COG Operating LLC
Stealth Federal #4

Analytical Method: Chloride by EPA 300

Seq Number: 3048766

MB Sample Id: 7643901-1-BLK

Matrix: Solid

LCS Sample Id: 7643901-1-BKS

Prep Method: E300P

Date Prep: 05.02.18

LCSD Sample Id: 7643901-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	265	106	90-110	2	20	mg/kg	05.02.18 16:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3048766

Parent Sample Id: 584478-003

Matrix: Soil

MS Sample Id: 584478-003 S

Prep Method: E300P

Date Prep: 05.02.18

MSD Sample Id: 584478-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Chloride	73.5	248	341	108	333	105	90-110	2	20	mg/kg	05.02.18 16:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3048766

Parent Sample Id: 584482-003

Matrix: Soil

MS Sample Id: 584482-003 S

Prep Method: E300P

Date Prep: 05.02.18

MSD Sample Id: 584482-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Chloride	6.70	248	271	107	277	109	90-110	2	20	mg/kg	05.02.18 18:17	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3048781

MB Sample Id: 7643972-1-BLK

Matrix: Solid

LCS Sample Id: 7643972-1-BKS

Prep Method: TX1005P

Date Prep: 05.02.18

LCSD Sample Id: 7643972-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1100	110	1030	103	70-135	7	20	mg/kg	05.02.18 13:41	
Diesel Range Organics (DRO)	<15.0	1000	1130	113	1080	108	70-135	5	20	mg/kg	05.02.18 13:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		120		110		70-135	%	05.02.18 13:41
o-Terphenyl	91		117		108		70-135	%	05.02.18 13:41

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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
Stealth Federal #4

Analytical Method: TPH By SW8015 Mod

Seq Number: 3048781

Parent Sample Id: 584189-083

Matrix: Soil

MS Sample Id: 584189-083 S

Prep Method: TX1005P

Date Prep: 05.02.18

MSD Sample Id: 584189-083 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	927	93	878	88	70-135	5	20	mg/kg	05.02.18 15:27	
Diesel Range Organics (DRO)	<15.0	998	1020	102	943	94	70-135	8	20	mg/kg	05.02.18 15:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		97		70-135	%	05.02.18 15:27
o-Terphenyl	93		89		70-135	%	05.02.18 15:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3048631

MB Sample Id: 7643879-1-BLK

Matrix: Solid

LCS Sample Id: 7643879-1-BKS

Prep Method: SW5030B

Date Prep: 05.02.18

LCSD Sample Id: 7643879-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.113	113	0.114	115	70-130	1	35	mg/kg	05.02.18 07:21	
Toluene	<0.00200	0.0998	0.110	110	0.110	111	70-130	0	35	mg/kg	05.02.18 07:21	
Ethylbenzene	<0.00200	0.0998	0.111	111	0.112	113	70-130	1	35	mg/kg	05.02.18 07:21	
m,p-Xylenes	<0.00399	0.200	0.227	114	0.231	116	70-130	2	35	mg/kg	05.02.18 07:21	
o-Xylene	<0.00200	0.0998	0.113	113	0.115	116	70-130	2	35	mg/kg	05.02.18 07:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		105		102		70-130	%	05.02.18 07:21
4-Bromofluorobenzene	86		102		103		70-130	%	05.02.18 07:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3048631

Parent Sample Id: 584460-001

Matrix: Soil

MS Sample Id: 584460-001 S

Prep Method: SW5030B

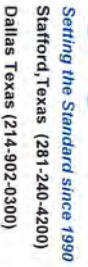
Date Prep: 05.02.18

MSD Sample Id: 584460-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.101	101	0.107	107	70-130	6	35	mg/kg	05.02.18 08:04	
Toluene	<0.00199	0.0996	0.0982	99	0.103	103	70-130	5	35	mg/kg	05.02.18 08:04	
Ethylbenzene	<0.00199	0.0996	0.101	101	0.107	107	70-130	6	35	mg/kg	05.02.18 08:04	
m,p-Xylenes	<0.00398	0.199	0.208	105	0.219	110	70-130	5	35	mg/kg	05.02.18 08:04	
o-Xylene	<0.00199	0.0996	0.102	102	0.108	108	70-130	6	35	mg/kg	05.02.18 08:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		103		70-130	%	05.02.18 08:04
4-Bromofluorobenzene	96		99		70-130	%	05.02.18 08:04

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



Page 1 of 1

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

Xenco Quote #	Xenco Job #
---------------	-------------

58478

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



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: COG Operating LLC

Date/ Time Received: 05/02/2018 10:15:10 AM

Work Order #: 584478

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)?	4.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

TPH received in bulk container

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Katie Lowe

Date: 05/02/2018

Checklist reviewed by:

Jessica Kramer

Date: 05/02/2018

APPENDIX VII





