



**Robert Grubbs Jr**  
Senior HSE Coordinator

March 23, 2017

Oil Conservation Division  
District 2 – Artesia  
811 S. First St.  
Artesia, NM 88210

**Re: Myox 6 State Com #012H**  
**30-015-37468**  
**Sec. 06, T26S-R28E**  
**Eddy County, NM**

Mr. Bratcher / Ms. Groves,

COG Operating LLC would like to submit for your consideration the enclosed work plan for the above captioned well. The plan is in response to the C-141 Initial report dated May 06, 2016.

#### **Background**

The release was caused by a fire tube failure on the heater treater resulting in a fire and discharging fluid. The majority of the fluid was burnt up in the fire. This release was located on the pad except for an impacted area off the pad measures approximately 15' x 20'. All areas were addressed with an initial scrap and all impacted material hauled to an NMOCD approved facility.

#### **Groundwater**

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of Twenty due to the depth of groundwater at approximately <50'. No well information could be found for Section 26.

#### **Soil Assessment and Analytical Results**

Initial soil samples were taken on May 25, 2015. Samples points S-1, S-2 and S-4 indicated TPH were within RRALs for site ranking twenty. Sample point S-3 exceeded the TPH RRAL on surface but declined at 1', S-5 exceeded the TPH RRAL at 1' but declined at 2'. None of the sample points exceeded the RRAL for benzene or total BTEX. Elevated chloride levels were detected in the area of sample point S-2 but were vertically defined at 6'. (See attached analytical table)

#### **Work Plan**

COG proposes two excavations one in the area S-3 with dimensions of 30' x 70' x 0.5' feet and one in the area of S-5 with dimensions of 15' x 20' x 1.5' feet. (See diagram) The area will be backfilled with like material to grade. In the area of S-2 Concho proposes that this area not be excavated due to the first two feet being clean, there are only two horizons where the chlorides are elevated and the limited area to excavate due to the active production equipment in place. If there are no objections or further stipulations, COG Operating LLC would like to begin the remediation process based on approval of this work plan. Please feel free to contact my with any questions or concerns.

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#### **CORPORATE ADDRESS**

One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701  
**P** 432.683.7443 | **F** 432.683.7441

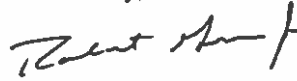
#### **CARLSBAD OFFICE**

1401 Commerce Drive | Carlsbad, New Mexico 88220  
**P** 575.689.3100 | **F** 575.941.2081

**NMOCD**

March 23, 2017

Sincerely,



Robert Grubbs Jr.  
Senior HSE Coordinator

**Enclosed**

- (1) C-141 Initial
- (2) Summary Table
- (3) Release Site Diagram
- (4) Excavation Site Diagram
- (5) Laboratory Analysis

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

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

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

|                  |                                            |                |                |
|------------------|--------------------------------------------|----------------|----------------|
| Name of Company: | COG Operating LLC                          | Contact:       | Robert McNeill |
| Address:         | 600 West Illinois Avenue, Midland TX 79701 | Telephone No.  | 432-683-7443   |
| Facility Name:   | MYOX 6 STATE COM #012H                     | Facility Type: | Tank Battery   |

|                |       |                |         |              |
|----------------|-------|----------------|---------|--------------|
| Surface Owner: | State | Mineral Owner: | API No. | 30-015-37468 |
|----------------|-------|----------------|---------|--------------|

#### LOCATION OF RELEASE

|             |         |          |       |               |                  |               |                |        |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
| A           | 06      | 26S      | 28E   | 660           | North            | 330           | East           | Eddy   |

Latitude 32.0771141

Longitude 104.1191025

#### NATURE OF RELEASE

|                                                                                                                                                     |                                                             |                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|
| Type of Release:<br>Oil and Produced Water                                                                                                          | Volume of Release: 5bbls of Oil<br>10bbls of Produced Water | Volume Recovered: 0bbls of Oil<br>0bbls of Produced Water |
| Source of Release:<br>Heater Treater                                                                                                                | Date and Hour of Occurrence:<br>05-06-2016 09:30am          | Date and Hour of Discovery:<br>05-06-2016 09:30am         |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom?                                            |                                                           |
| By Whom?                                                                                                                                            | Date and Hour:                                              |                                                           |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                   | If YES, Volume Impacting the Watercourse.                   |                                                           |

If a Watercourse was Impacted, Describe Fully.\*

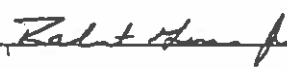
Describe Cause of Problem and Remedial Action Taken.\*

Fire tube failure on the Heater Treater.

Describe Area Affected and Cleanup Action Taken.\*

The majority of the release was contained in the bermed area a 3' X 10' area in the pasture. The majority of the fluid was burnt up in the fire. Concho has replaced the fire tube on the heater treater and will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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:  | <b>OIL CONSERVATION DIVISION</b>      |                  |                                   |
| Printed Name: Robert Grubbs Jr.                                                                | Approved by Environmental Specialist: |                  |                                   |
| Title: Senior Environmental Coordinator                                                        | Approval Date:                        | Expiration Date: |                                   |
| E-mail Address: rgrubbs@concho.com                                                             | Conditions of Approval:               |                  | Attached <input type="checkbox"/> |
| Date: 05-16-2016                                                                               | Phone: 432-683-7443                   |                  |                                   |

\* Attach Additional Sheets If Necessary

# **MYOX 6 STATE COM #012H**

**SITE RANKING: 20**

**DEPTH TO GW PER SEO: <50**

| <b>S1</b> | <b>BTEX</b> | <b>GRO</b> | <b>DRO</b> | <b>TPH</b> | <b>CL-</b> |
|-----------|-------------|------------|------------|------------|------------|
| 1'        | <0.300      | <10.0      | <10.0      | <20.0      | <16.0      |
| 2'        | <0.300      | <10.0      | <10.0      | <20.0      | <16.0      |
| 3'        | <0.300      | <10.0      | <10.0      | <20.0      | <48.0      |
| 4'        | <0.300      | <10.0      | <10.0      | <20.0      | <32.0      |
| 6'        | -           | -          | -          | -          | 128        |
| 8'        | -           | -          | -          | -          | 160        |
| 10'       | -           | -          | -          | -          | 256        |
| 12'       | -           | -          | -          | -          | 304        |
| <b>S2</b> | <b>BTEX</b> | <b>GRO</b> | <b>DRO</b> | <b>TPH</b> | <b>CL-</b> |
| 1'        | <0.300      | <10.0      | <10.0      | <20.0      | 48         |
| 2'        | <0.300      | <10.0      | <10.0      | <20.0      | 208        |
| 3'        | <0.300      | <10.0      | <10.0      | <20.0      | 5040       |
| 4'        | <0.300      | <10.0      | <10.0      | <20.0      | 3000       |
| 6'        | -           | -          | -          | -          | 560        |
| 8'        | -           | -          | -          | -          | 320        |
| 10'       | -           | -          | -          | -          | 768        |
| 12'       | -           | -          | -          | -          | 912        |
| <b>S3</b> | <b>BTEX</b> | <b>GRO</b> | <b>DRO</b> | <b>TPH</b> | <b>CL-</b> |
| SURFACE   | <0.300      | <10.0      | 783        | 793        | 5870       |
| 1'        | <0.300      | <10.0      | 11.5       | 21.5       | <16.0      |
| 2'        | <0.300      | <10.0      | <10.0      | <20.0      | <16.0      |
| 3'        | <0.300      | <10.0      | <10.0      | <20.0      | <16.0      |
| 4'        | -           | -          | -          | -          | <16.0      |
| 6'        | -           | -          | -          | -          | 32         |
| 8'        | -           | -          | -          | -          | <16.0      |
| 10'       | -           | -          | -          | -          | 16         |
| 12'       | -           | -          | -          | -          | <16.0      |
| <b>S4</b> | <b>BTEX</b> | <b>GRO</b> | <b>DRO</b> | <b>TPH</b> | <b>CL-</b> |
| SURFACE   | <0.300      | <10.0      | <10.0      | <20.0      | 16         |
| 1'        | <0.300      | <10.0      | <10.0      | <20.0      | <16.0      |
| <b>S5</b> | <b>BTEX</b> | <b>GRO</b> | <b>DRO</b> | <b>TPH</b> | <b>CL-</b> |
| 1'        | 0.856       | <50.0      | 726        | 776        | <16.0      |
| 2'        | <0.300      | <10.0      | 32         | 42         | <16.0      |

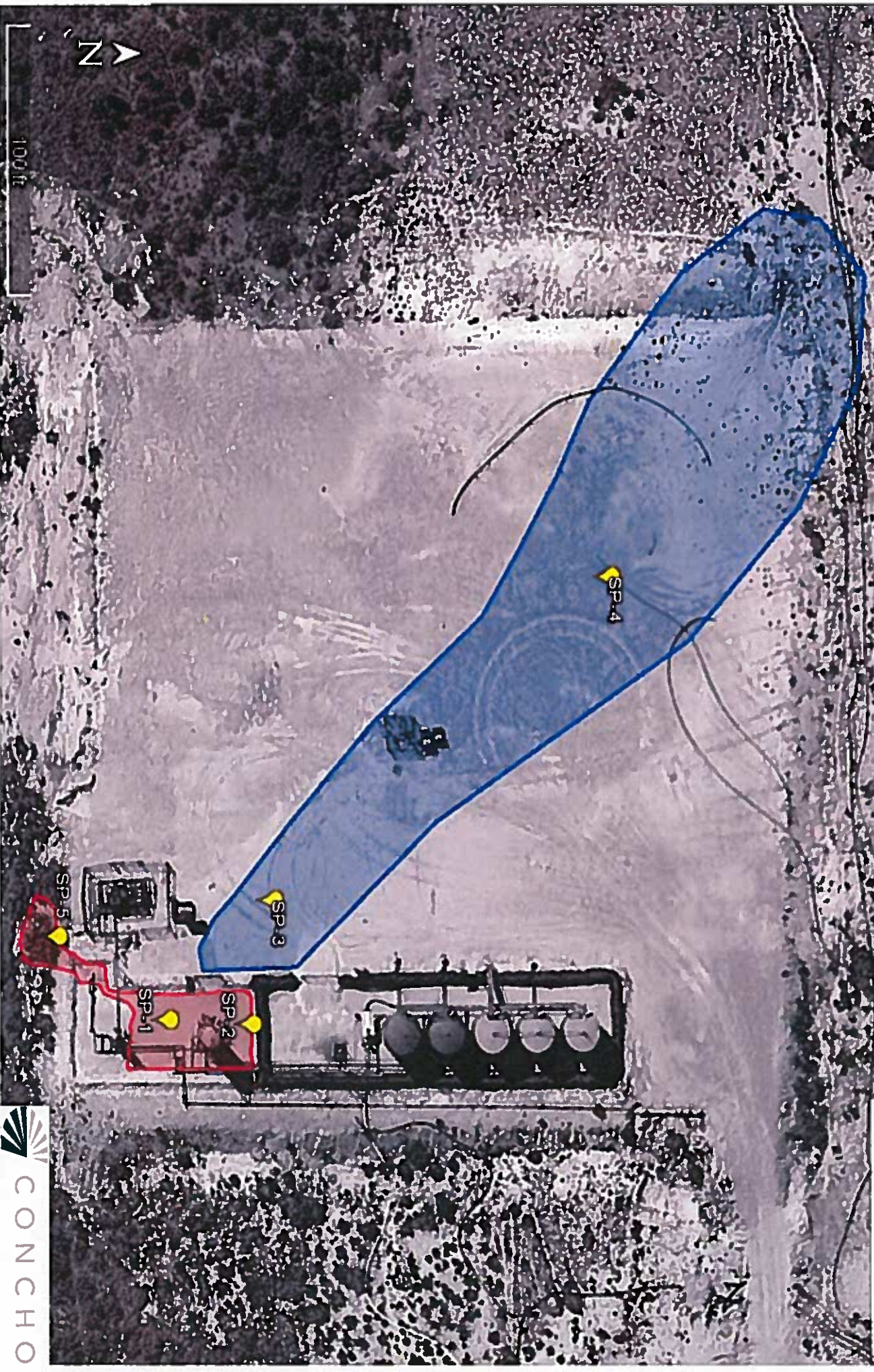
MAY 06, 2015

# MYOX STATE COM #012H

Myox 6 State Com #012H

32.0771141 -104.1191025

**Legend**  
 Misted Release Area  
 Burned Release Area



CONCHO

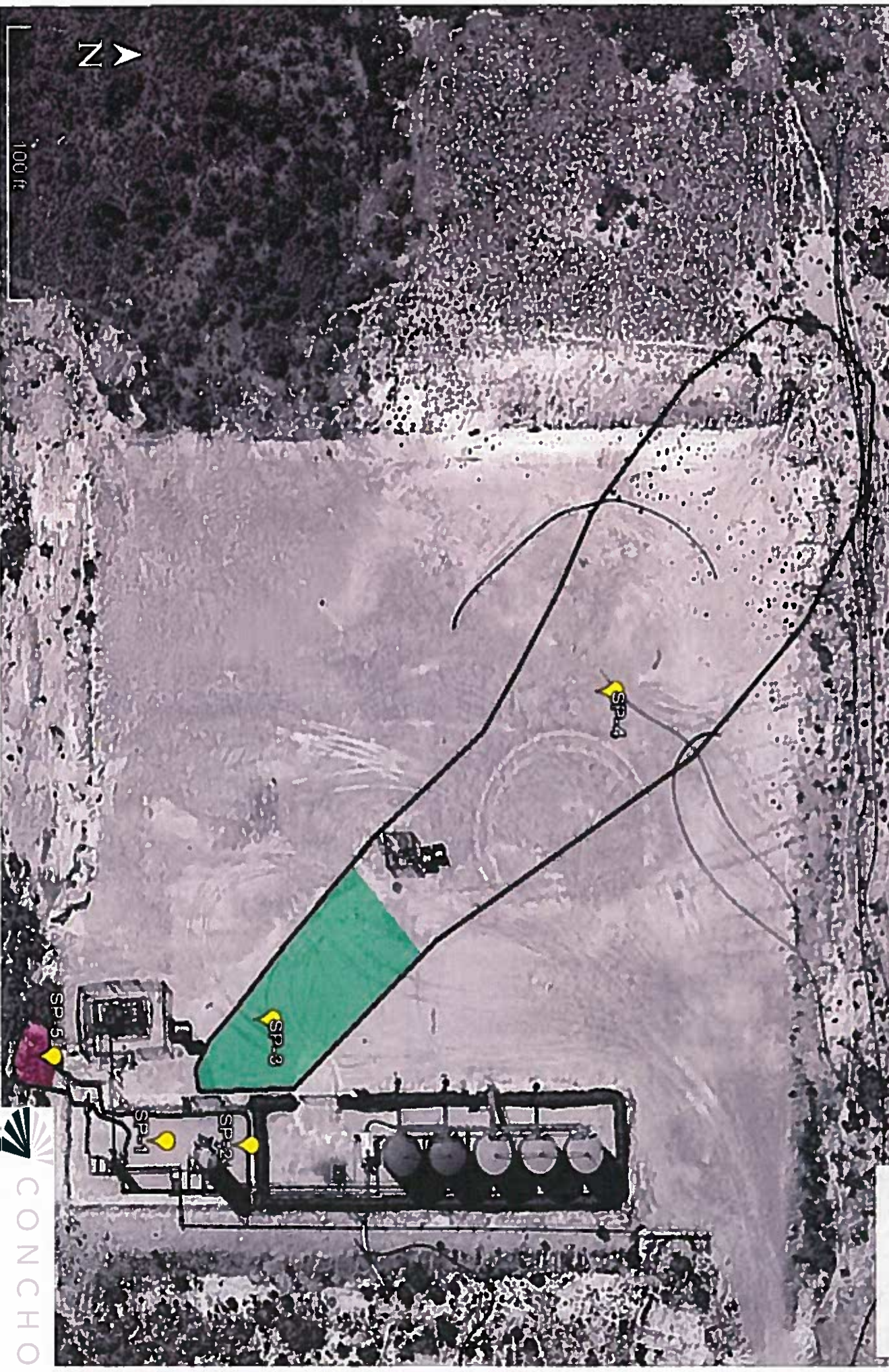
MAY 06, 2015

# MYOX STATE COM #012H

Myox 6 State Com #012H

32 0771141 -104.1191025

**Legend**  
1' Excavation  
6" Excavation



CONCHO



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

June 02, 2016

LUPE CARRASCO

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: MYOX 6 STATE #12H

Enclosed are the results of analyses for samples received by the laboratory on 05/25/16 14:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

|                  |                              |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S1 - 1' (H601148-01)**

| BTEX 8021B     |        |                 | mg/kg      |              | Analyzed By: CK |            |               |      |           |
|----------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/27/2016 | ND           | 2.10            | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/27/2016 | ND           | 2.03            | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/27/2016 | ND           | 1.83            | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/27/2016 | ND           | 5.67            | 94.5       | 6.00          | 1.49 |           |
| Total BTEX     | <0.300 | 0.300           | 05/27/2016 | ND           |                 |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

| Chloride, SM4500Cl-B |        |                 | mg/kg      |              | Analyzed By: AP |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 05/31/2016 | ND           | 416             | 104        | 400           | 3.77 |           |

| TPH 8015M    |        |                 | mg/kg      |              | Analyzed By: CK |            |               |      |           |
|--------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND           | 170             | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND           | 174             | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 82.1 % 35-147

Surrogate: 1-Chlorooctadecane 109 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S1 - 2' (H601148-02)**

| BTEX 8021B     |        |                 | mg/kg      |              | Analyzed By: CK |            |               |      |           |
|----------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/27/2016 | ND           | 2.10            | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/27/2016 | ND           | 2.03            | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/27/2016 | ND           | 1.83            | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/27/2016 | ND           | 5.67            | 94.5       | 6.00          | 1.49 |           |
| Total BTEX     | <0.300 | 0.300           | 05/27/2016 | ND           |                 |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 98.8 % 73.6-140

| Chloride, SM4500Cl-8 |        |                 | mg/kg      |              | Analyzed By: AP |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 05/31/2016 | ND           | 416             | 104        | 400           | 3.77 |           |

| TPH 8015M    |        |                 | mg/kg      |              | Analyzed By: CK |            |               |      |           |
|--------------|--------|-----------------|------------|--------------|-----------------|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank | BS              | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND           | 170             | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND           | 174             | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 79.7 % 35-147

Surrogate: 1-Chlorooctadecane 102 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S1 - 3' (H601148-03)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/27/2016 | ND              | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/27/2016 | ND              | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/27/2016 | ND              | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/27/2016 | ND              | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTEX     | <0.300 | 0.300           | 05/27/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIL) 99.7 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 48.0   | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 79.2 % 35-147

Surrogate: 1-Chlorooctadecane 107 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S1 - 4' (H601148-04)**

| BTX 80218      |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016 | ND              | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016 | ND              | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 32.0   | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 74.8 % 35-147

Surrogate: 1-Chlorooctadecane 94.1 % 28-171

**Sample ID: S1 - 6' (H601148-05)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 128    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

|                   |                   |                     |                |
|-------------------|-------------------|---------------------|----------------|
| Received:         | 05/25/2016        | Sampling Date:      | 05/23/2016     |
| Reported:         | 06/02/2016        | Sampling Type:      | Soil           |
| Project Name:     | MYOX 6 STATE #12H | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN        | Sample Received By: | Celey D. Keene |
| Project Location: | NOT GIVEN         |                     |                |

**Sample ID: S1 - 8' (H601148-06)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 160    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S1 - 10' (H601148-07)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 256    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S1 - 12' (H601148-08)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 304    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S2 - 1' (H601148-09)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016 | ND              | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016 | ND              | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 48.0   | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 59.4 % 35-147

Surrogate: 1-Chlorooctadecane 79.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S2 - 2' (H601148-10)**

| BTX 8021B      |        | mg/kg           | Analyzed By: CK |              |      |            |               |      |           |
|----------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016      | ND           | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016      | ND           | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016      | ND           |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 208    | 16.0            | 05/31/2016      | ND           | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           | Analyzed By: CK |              |     |            |               |      |           |
|--------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016      | ND           | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016      | ND           | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 75.4 % 35-147

Surrogate: 1-Chlorooctadecane 94.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S2 - 3' (H601148-11)**

| BTX 8021B      |        | mg/kg           | Analyzed By: CK |              |      |            |               |      |           |
|----------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016      | ND           | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016      | ND           | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016      | ND           |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIL) 98.4 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 5040   | 16.0            | 05/31/2016      | ND           | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           | Analyzed By: CK |              |     |            |               |      |           |
|--------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016      | ND           | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016      | ND           | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 59.4 % 35-147

Surrogate: 1-Chlorooctadecane 81.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Caley D. Keene

**Sample ID: S2 - 4' (H601148-12)**

| BTEX 80218     |        | mg/kg           | Analyzed By: CK |              |      |            |               |      |           |
|----------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016      | ND           | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016      | ND           | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTEX     | <0.300 | 0.300           | 05/28/2016      | ND           |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 98.0 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3000   | 16.0            | 05/31/2016      | ND           | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           | Analyzed By: CK |              |     |            |               |      |           |
|--------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016      | ND           | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016      | ND           | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 75.9 % 35-147

Surrogate: 1-Chlorooctadecane 102 % 28-171

**Sample ID: S2 - 6' (H601148-13)**

| Chloride, SM4500Cl-B |        | mg/kg           | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 560    | 16.0            | 05/31/2016      | ND           | 416 | 104        | 400           | 3.77 |           |

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 05/25/2016  
 Reported: 06/02/2016  
 Project Name: MYOX 6 STATE #12H  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/23/2016  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: S2 - 8' (H601148-14)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 320    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |  |

**Sample ID: S2 - 10' (H601148-15)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 768    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

**Sample ID: S2 - 12' (H601148-16)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 912    | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |  |

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S3 - SURFACE (H601148-17)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016 | ND              | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016 | ND              | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 5870   | 16.0            | 05/31/2016 | ND              | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | 783    | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 83.6 % 35-147

Surrogate: 1-Chlorooctadecane 113 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S3 - 1' (H601148-18)**

| BTX 80218      |        | mg/kg           | Analyzed By: CK |              |      |            |               |      |           |
|----------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016      | ND           | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016      | ND           | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016      | ND           |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 98.7 % 73 6-140

| Chloride, SM4500Cl-B |        | mg/kg           | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 05/31/2016      | ND           | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           | Analyzed By: CK |              |     |            |               |      |           |
|--------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016      | ND           | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | 11.5   | 10.0            | 05/27/2016      | ND           | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 63.0 % 35-147

Surrogate: 1-Chlorooctadecane 75.2 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Caley D. Keene

**Sample ID: S3 - 2' (H601148-19)**

| BTX 8021B      |        | mg/kg           | Analyzed By: CK |              |      |            |               |      |           |
|----------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016      | ND           | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016      | ND           | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016      | ND           | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016      | ND           |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 05/31/2016      | ND           | 416 | 104        | 400           | 3.77 |           |

| TPH 8015M    |        | mg/kg           | Analyzed By: CK |              |     |            |               |      |           |
|--------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016      | ND           | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016      | ND           | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 82.5 % 35-147

Surrogate: 1-Chlorooctadecane 108 % 28-171

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S3 - 3' (H601148-20)**

| BTX 80218      |        | mg/kg           |            | Analyzed By: CK |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.10 | 105        | 2.00          | 1.57 |           |
| Toluene*       | <0.050 | 0.050           | 05/28/2016 | ND              | 2.03 | 102        | 2.00          | 1.53 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/28/2016 | ND              | 1.83 | 91.6       | 2.00          | 1.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 05/28/2016 | ND              | 5.67 | 94.5       | 6.00          | 1.49 |           |
| Total BTX      | <0.300 | 0.300           | 05/28/2016 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 85.5 % 35-147

Surrogate: 1-Chlorooctadecane 113 % 28-171

**Sample ID: S3 - 4' (H601148-21)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S3 - 6' (H601148-22)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 32.0   | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

**Sample ID: S3 - 8' (H601148-23)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

**Sample ID: S3 - 10' (H601148-24)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 16.0   | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

**Sample ID: S3 - 12' (H601148-25)**

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Caley D. Keene

**Sample ID: S4 - SURFACE (H601148-26)****BTEX 80218****mg/kg****Analyzed By: CK**

| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
|----------------|--------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Benzene*       | <0.050 | 0.050           | 05/31/2016 | ND           | 1.81 | 90.5       | 2.00          | 2.15  |           |
| Toluene*       | <0.050 | 0.050           | 05/31/2016 | ND           | 1.87 | 93.7       | 2.00          | 1.33  |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/31/2016 | ND           | 1.73 | 86.5       | 2.00          | 1.12  |           |
| Total Xylenes* | <0.150 | 0.150           | 05/31/2016 | ND           | 5.42 | 90.4       | 6.00          | 0.639 |           |
| Total BTEX     | <0.300 | 0.300           | 05/31/2016 | ND           |      |            |               |       |           |

*Surrogate: 4-Bromofluorobenzene (PIC)* 101 % 73.6-140**Chloride, SM4500Cl-B****mg/kg****Analyzed By: AP**

| Analyte  | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
|----------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Chloride | 16.0   | 16.0            | 06/01/2016 | ND           | 400 | 100        | 400           | 3.92 |           |

**TPH 8015M****mg/kg****Analyzed By: CK**

| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
|--------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND           | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND           | 174 | 87.0       | 200           | 9.47 |           |

*Surrogate: 1-Chlorooctane* 79.9 % 35-147*Surrogate: 1-Chlorooctadecane* 98.9 % 28-171

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S4 - 1' (H601148-27)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: CK |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/31/2016 | ND              | 1.81 | 90.5       | 2.00          | 2.15  |           |
| Toluene*       | <0.050 | 0.050           | 05/31/2016 | ND              | 1.87 | 93.7       | 2.00          | 1.33  |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/31/2016 | ND              | 1.73 | 86.5       | 2.00          | 1.12  |           |
| Total Xylenes* | <0.150 | 0.150           | 05/31/2016 | ND              | 5.42 | 90.4       | 6.00          | 0.639 |           |
| Total BTX      | <0.300 | 0.300           | 05/31/2016 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 73 6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 70.4 % 35-147

Surrogate: 1-Chlorooctadecane 101 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S5 - 1' (H601148-28)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: CK |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/31/2016 | ND              | 1.81 | 90.5       | 2.00          | 2.15  |           |
| Toluene*       | 0.143  | 0.050           | 05/31/2016 | ND              | 1.87 | 93.7       | 2.00          | 1.33  |           |
| Ethylbenzene*  | 0.111  | 0.050           | 05/31/2016 | ND              | 1.73 | 86.5       | 2.00          | 1.12  |           |
| Total Xylenes* | 0.602  | 0.150           | 05/31/2016 | ND              | 5.42 | 90.4       | 6.00          | 0.639 |           |
| Total BTEX     | 0.856  | 0.300           | 05/31/2016 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <50.0  | 50.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | 726    | 50.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 63.6 % 35-147

Surrogate: 1-Chlorooctadecane 87.4 % 28-171

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 05/25/2016  
Reported: 06/02/2016  
Project Name: MYOX 6 STATE #12H  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/23/2016  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Celey D. Keene

**Sample ID: S5 - 2' (H601148-29)**

| BTX 8021B      |        | mg/kg           |            | Analyzed By: CK |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 05/31/2016 | ND              | 1.81 | 90.5       | 2.00          | 2.15  |           |
| Toluene*       | <0.050 | 0.050           | 05/31/2016 | ND              | 1.87 | 93.7       | 2.00          | 1.33  |           |
| Ethylbenzene*  | <0.050 | 0.050           | 05/31/2016 | ND              | 1.73 | 86.5       | 2.00          | 1.12  |           |
| Total Xylenes* | <0.150 | 0.150           | 05/31/2016 | ND              | 5.42 | 90.4       | 6.00          | 0.639 |           |
| Total BTX      | <0.300 | 0.300           | 05/31/2016 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 73.6-140

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | <16.0  | 16.0            | 06/01/2016 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: CK |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 05/27/2016 | ND              | 170 | 85.1       | 200           | 5.99 |           |
| DRO >C10-C28 | 32.2   | 10.0            | 05/27/2016 | ND              | 174 | 87.0       | 200           | 9.47 |           |

Surrogate: 1-Chlorooctane 74.6 % 35-147

Surrogate: 1-Chlorooctadecane 98.6 % 28-171

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

|       |                                                                                                                                                                                         |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S-04  | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.                                                                          |
| QR-03 | The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.                                                        |
| ND    | Analyte NOT DETECTED at or above the reporting limit                                                                                                                                    |
| RPD   | Relative Percent Difference                                                                                                                                                             |
| **    | Samples not received at proper temperature of 6°C or below.                                                                                                                             |
| ***   | Insufficient time to reach temperature.                                                                                                                                                 |
| -     | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report                          |

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**Celey D. Keene, Lab Director/Quality Manager**



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

|                                                   |                  |                                   |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|---------------------------------------------------|------------------|-----------------------------------|--------------------------------|-------------------------|-------------|--|---------|--|--|----------|------|------|-----|----------|--|--|--|--|--|--|--|
| <b>Company Name:</b> COG Operating LLC            |                  | <b>P.O. #:</b>                    |                                | <b>ANALYSIS REQUEST</b> |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Project Manager:</b> Lupe Carrasco             |                  | <b>Company:</b> COG Operating LLC |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Address:</b> 2208 West Main                    |                  | <b>Attn:</b> Robert McNeill       |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>City:</b> Artesia                              | <b>State:</b> NM | <b>Zip:</b> 88210                 | <b>Address:</b> 600 W Illinois |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Phone #:</b> (575) 748-6940                    | <b>Fax #:</b>    | <b>City:</b> Midland              | <b>State:</b> TX               | <b>Zip:</b> 79701       |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Project #:</b>                                 |                  | <b>Project Owner:</b>             |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Project Name:</b> Myox 6 State #12H            |                  | <b>Phone #:</b> (432) 221-0388    |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Project Location:</b>                          |                  | <b>Fax #:</b>                     |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Sampler Name:</b> Lupe Carrasco                |                  |                                   |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>FOR LAB USE ONLY</b>                           |                  |                                   |                                |                         |             |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
| <b>Lab I.D.</b><br><br>Sample I.D.<br><br>HG01148 |                  | (G)RAB OR (C)OMP.                 | # CONTAINERS                   | MATRIX                  |             |  | PRESERV |  |  | SAMPLING |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | GROUNDWATER |  |         |  |  | DATE     | TIME | BTEX | TPH | Chloride |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | WASTEWATER  |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | SOIL        |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | OIL         |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | SLUDGE      |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | OTHER:      |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | ACID/BASE   |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | ICE / COOL  |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   |                  |                                   |                                |                         | OTHER:      |  |         |  |  |          |      |      |     |          |  |  |  |  |  |  |  |
|                                                   | S1-1'            | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-2'            | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-3'            | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-4'            | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-6'            | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-8'            | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-10'           | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |
|                                                   | S1-12'           | X                                 |                                |                         |             |  |         |  |  | 5/23/16  |      | X    | X   | X        |  |  |  |  |  |  |  |

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|                                                   |                      |                                               |                   |                   |                                                   |                      |                                               |              |              |                                                                                       |                                                                                                                                                                                       |                                                |                                                                                                                       |                                                                                                                   |                                                |
|---------------------------------------------------|----------------------|-----------------------------------------------|-------------------|-------------------|---------------------------------------------------|----------------------|-----------------------------------------------|--------------|--------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Relinquished By:</b><br><br><i>[Signature]</i> | <b>Date:</b> 5/23/16 | <b>Received By:</b><br><br><i>[Signature]</i> | <b>Time:</b> 2:05 | <b>Time:</b> 2:05 | <b>Relinquished By:</b><br><br><i>[Signature]</i> | <b>Date:</b> 5/23/16 | <b>Received By:</b><br><br><i>[Signature]</i> | <b>Time:</b> | <b>Time:</b> | <b>Delivered By:</b> (Circle One)<br>Sampler - UPS - Bus - Other: <i>concho 3.1°C</i> | <b>Sample Condition</b><br>Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | <b>CHECKED BY:</b><br>(Initials)<br><i>CHB</i> | <b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: | <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #: | <b>REMARKS:</b><br><i>atrujillo@concho.com</i> |
|---------------------------------------------------|----------------------|-----------------------------------------------|-------------------|-------------------|---------------------------------------------------|----------------------|-----------------------------------------------|--------------|--------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------|



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 5

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                            |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------|--|---------------------------------------------------------------------|--|---------------------------------------------------------------------|--|---------------------------------------------------------------------|--|------------------------------------|--|------|--|-----|--|--------|--|-------|--|-----------|--|------------|--|-------|--|------|--|------|--|-----|--|-----|--|----------|--|--|--|--|--|--|--|--|--|--|--|
| Company Name: COG Operating LLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | P.O. #:                    |  | ANALYSIS REQUEST                                                    |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Project Manager: Lupe Carrasco                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Company: COG Operating LLC |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Address: 2208 West Main                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | Attn: Robert McNeill       |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| City: Artesia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Address: 600 W Illinois    |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Phone #: (575) 748-6940                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | City: Midland              |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Fax #: (575) 748-6940                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | State: TX                  |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Project #: Myox 6 State #12H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Zip: 79701                 |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Project Location:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Phone #: (432) 221-0388    |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Sample Name: Lupe Carrasco                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Fax #:                     |  |                                                                     |  |                                                                     |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| FOR LAB USE ONLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | MATRIX                     |  | PRESERV                                                             |  | SAMPLING                                                            |  |                                                                     |  |                                    |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Lab I.D.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Sample I.D.                |  | (G)RAB OR (C)OMP                                                    |  | # CONTAINERS                                                        |  | GROUNDWATER                                                         |  | WASTEWATER                         |  | SOIL |  | OIL |  | SLUDGE |  | OTHER |  | ACID/BASE |  | ICE / COOL |  | OTHER |  | DATE |  | TIME |  | BTX |  | TPH |  | Chloride |  |  |  |  |  |  |  |  |  |  |  |
| HQA148                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | -9                         |  | S2-1'                                                               |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-2'                      |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-3'                      |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-4'                      |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-6'                      |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-8'                      |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-10'                     |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
| -16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | S2-12'                     |  | X                                                                   |  | X                                                                   |  | X                                                                   |  | X                                  |  | X    |  | X   |  | X      |  | X     |  | X         |  | X          |  | X     |  | X    |  | X    |  | X   |  | X   |  | X        |  |  |  |  |  |  |  |  |  |  |  |
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| Relinquished By: <i>[Signature]</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Date: 5/23/16              |  | Time: 2:05                                                          |  | Received By: <i>[Signature]</i>                                     |  | Date: 5/23/16                                                       |  | Time: 2:05                         |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Delivered By: (Circle One)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | 3.0e                       |  | Sample Condition                                                    |  | Cool                                                                |  | Intact                                                              |  | Checked By: <i>[Signature]</i>     |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |
| Sampler - UPS - Bus - Other: <i>Conch 3.1e</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | FORM-006 R2.0              |  | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |  | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |  | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |  | Add'l Phone #: <i>575-393-2476</i> |  |      |  |     |  |        |  |       |  |           |  |            |  |       |  |      |  |      |  |     |  |     |  |          |  |  |  |  |  |  |  |  |  |  |  |

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 25 of 26



101 East Marland, Hobbs, NM 88240  
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

5045

Company Name: COG Operating LLC

Project Manager: Lupe Carrasco

Address: 2208 West Main

City: Artesia

Phone #: (575) 748-6940

Project #:

Project Name: Myox 6 State #12H

Project Location:

Sampler Name: Lupe Carrasco

P.O. #:

Company: COG Operating LLC

Attn: Robert McNeill

Address: 600 W Illinois

City: Medford

State: TX Zip: 79701

Phone #: (432) 221-0388

Fax #:

ANALYSIS REQUEST

| Lab I.D. | Sample I.D. | FOR LAB USE ONLY | PRESERV |         | SAMPLING | ANALYSIS REQUEST |      |     |          |  |  |  |  |  |  |  |  |  |  |
|----------|-------------|------------------|---------|---------|----------|------------------|------|-----|----------|--|--|--|--|--|--|--|--|--|--|
|          |             |                  | MATRIX  | DATE    |          | TIME             | BTEX | TPH | Chloride |  |  |  |  |  |  |  |  |  |  |
| HC0148   | 55-1'       |                  |         | 5/23/16 |          | X                | X    | X   |          |  |  |  |  |  |  |  |  |  |  |
| 29-28    | SS-1'       |                  |         | 5/23/16 |          | X                | X    | X   |          |  |  |  |  |  |  |  |  |  |  |
| 29-29    | SS-2'       |                  |         |         |          |                  |      |     |          |  |  |  |  |  |  |  |  |  |  |

Relinquished By:

Date: 5/23/16

Received By:

Time: 3:05

Relinquished By:

Date: 5/23/16

Received By:

Time: 3:05

Delivered By: (Circle One)

3:05

Sample Condition

CHECKED BY:

Sampler - UPS - Bus - Other:

Completed 3:10

FORM-006 R.2.0

Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476