



**Robert Grubbs Jr.**  
Senior Environmental Coordinator

November 17, 2015

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

**Re: Crossman 25 State #1  
30-15-38948  
Sec. 24, T25S-R27E  
Eddy County, NM**

Mr. Mike Bratcher,

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 October 20, 2014.

### **Background**

The release was caused by torrential rains that resulted in mass flooding. Flood waters washed tanks, debris, and pad material downstream. 280 bbls of oil and 100 bbls of produced water were lost and unrecoverable. GL Environmental Inc. (GLE) was contracted by the State Land Office to complete a site survey combined with a sampling and analysis effort of the affected portions of the draw. GLE identified one sample with elevated chloride concentrations on the pad through composite sampling of 3 discrete samples.

After discussions with OCD, COG conducted additional sampling on October 14, 2015 to further identify the areas of contamination at sample point 5 with discrete samples. (See attached map)

### **Groundwater**

Based on the Chevron Trend Maps, the release area would be classified at a site ranking of **zero (0)** due to the depth of groundwater being '.

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

COG sampling results indicate chloride concentrations within RRALs for a site ranking of zero (0). The pad area was divided into 4 quadrants for sampling purposes. Chloride concentrations in three sampling areas (S2, S3 and S5) were elevated for NMOCD's target of 1,000 mg/kg for the remediation of chlorides (see attached site diagram).

## **Work Plan**

COG proposes the following excavations:

T1 – No Excavation

T2 – Excavate 1'

T3 – Excavate 2'

T4 – No Excavation

T5 – Excavate 4'

Upon recommendation, COG will downsize the southwest edge of the pad area. Approximately 1100 cubic yards of material will be removed and a new pad boundary will be established. A 30" – 36" berm will be constructed along the west, south, and east edges of the pad.

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 at (432) 661-6601.

Sincerely,



Robert Grubbs Jr.

Senior Environmental Coordinator

Enclosed

- (1) C-141 Initial (Copy)
- (2) Site Diagram and Summary Table
- (3) 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. 432-230-0077 |
| Facility Name: Crossman 25 State #1H                | Facility Type: Battery     |
| Surface Owner: Federal                              | Mineral Owner: Federal     |
| API No. 30-015-38948                                |                            |

#### LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| A           | 25      | 25S      | 27E   | 330'          | North            | 330'          | East           | Eddy   |

Latitude 32.1073265861973 Longitude -104.136404581729

#### NATURE OF RELEASE

|  |  |   |
|--|--|---|
| Type of Release:<br>Oil and Produced Water   | Volume of Release:<br>280 bbls Oil ; 100 bbls PW     | Volume Recovered:<br>0 bbls Oil ; 0 bbls PW       |
| Source of Release:<br>Flood waters washed battery away.  | Date and Hour of Occurrence:<br>9/19/2014 11:00 am   | Date and Hour of Discovery:<br>9/19/2014 11:00 am |
| Was Immediate Notice Given?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?<br>Mike Bratcher - OCD              |   |
| By Whom? Robert McNeill  | Date and Hour: 9/22/2014 8:00 am (phone call)        |   |
| Was a Watercourse Reached?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | If YES, Volume Impacting the Watercourse.<br>Unknown |   |

#### If a Watercourse was Impacted, Describe Fully.\*


Torrential rains caused flood waters to rise. Waters over ran the location, taking tanks and equipment away with the water. Most of the pad was taken away with the flood waters as well. Tanks and equipment was located approximately 2 miles further down the arroyo. The steel tanks were empty and the fiberglass tanks were torn apart.

#### Describe Cause of Problem and Remedial Action Taken.\*

#### Describe Area Affected and Cleanup Action Taken.\*

The impacted area shows no signs of hydrocarbon or brine impact. Once the area dries out and is accessible to heavy equipment we will conduct a more thorough search of the area for hydrocarbon impact. Equipment will be removed from the draw and disposed of at an NMOCD approved facility.

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.

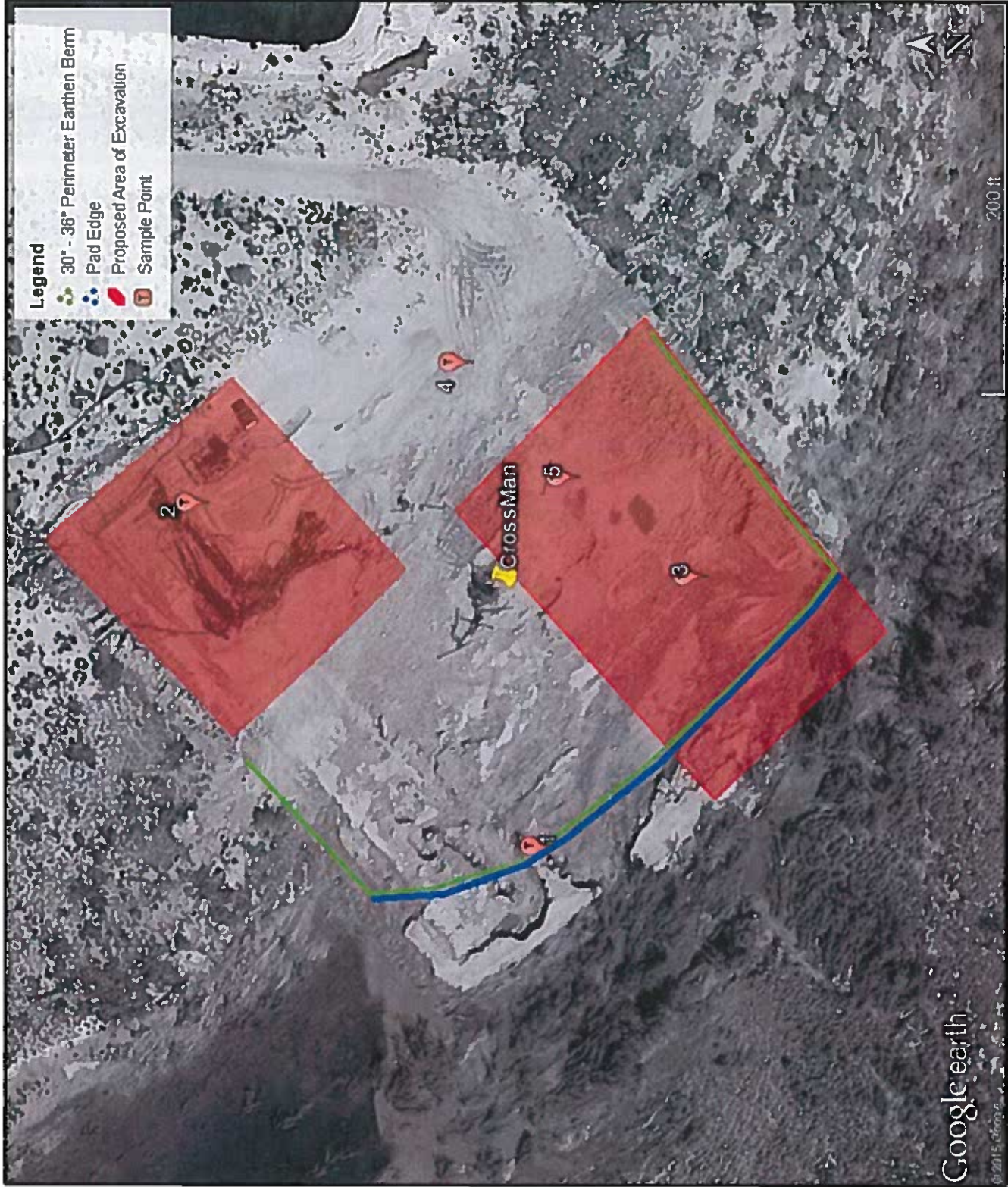
|  |  |                                       |                  |
|--|--|---------------------------------------|------------------|
| Signature:  |  | <b>OIL CONSERVATION DIVISION</b>      |                  |
| Printed Name: Amanda Trujillo  |  | Approved by Environmental Specialist: |                  |
| Title: Senior Environmental Coordinator  |  | Approval Date:                        | Expiration Date: |
| E-mail Address: <a href="mailto:atrujillo@concho.com">atrujillo@concho.com</a>                 |  | Conditions of Approval:               |                  |
| Date: October 20, 2014 Phone: 575-748-6940   |  | Attached <input type="checkbox"/>     |                  |

\* Attach Additional Sheets If Necessary





# Crossman 25 State #1



| Depth to GW per SEO: <50' |       |        |  |
|---------------------------|-------|--------|--|
| T1                        | DRO   | CI-    |  |
| 0-1'                      | <50.0 | 490    |  |
| 2                         | <50.0 | 490    |  |
| 4                         | <50.0 | 196    |  |
| 6'                        | <50.0 | 196    |  |
| 8'                        | <50.0 | 392    |  |
| 10'                       | <50.0 | 94     |  |
| T2                        | DRO   | CI-    |  |
| 0-1'                      | <50.0 | 1970   |  |
| 2                         | <50.0 | 939    |  |
| 4                         | <50.0 | 751    |  |
| 6'                        | <50.0 | 563    |  |
| 8'                        | <50.0 | 188    |  |
| 10'                       | <50.0 | 94     |  |
| T3                        | DRO   | CI-    |  |
| 0-1'                      | <50.0 | 11,000 |  |
| 2                         | <50.0 | 1690   |  |
| 4                         | <50.0 | 282    |  |
| 6'                        | <50.0 | 190    |  |
| 8'                        | <50.0 | 397    |  |
| 10'                       | <50.0 | <20    |  |
| T4                        | DRO   | CI-    |  |
| 0-1'                      | <50.0 | 474    |  |
| 2                         | <50.0 | 190    |  |
| 4'                        | <50.0 | 664    |  |
| 6'                        | <50.0 | 474    |  |
| 8'                        | <50.0 | 95     |  |
| 10'                       | <50.0 | <20    |  |
| T5                        | DRO   | CI-    |  |
| 2                         | -     | 3400   |  |
| 4'                        | -     | 2360   |  |
| 6'                        | -     | 1510   |  |
| 8'                        | -     | 1600   |  |
| 10'                       | -     | 1980   |  |
| Bold values exceed RRALs  |       |        |  |



## Summary Report

Robert Grubbs  
COG Operating, LLC  
550 W. Texas Avenue  
Suite 100  
Midland, TX 79701

Report Date: September 10, 2015

Work Order: 15082118



Project Location: Eddy Co, NM  
Project Name: Crossman 25 State

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|-------------|--------|------------|------------|---------------|
| 402936 | T-1 0-1'    | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402937 | T-1 2'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402938 | T-1 4'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402939 | T-1 6'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402940 | T-1 8'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402941 | T-1 10'     | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402942 | T-2 0-1'    | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402943 | T-2 2'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402944 | T-2 4'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402945 | T-2 6'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402946 | T-2 8'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402947 | T-2 10'     | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402948 | T-3 0-1'    | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402949 | T-3 2'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402950 | T-3 4'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402951 | T-3 6'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402952 | T-3 8'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402953 | T-3 10'     | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402954 | T-4 0-1'    | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402955 | T-4 2'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402956 | T-4 4'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402957 | T-4 6'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402958 | T-4 8'      | soil   | 2015-08-19 | 00:00      | 2015-08-21    |
| 402959 | T-4 10'     | soil   | 2015-08-19 | 00:00      | 2015-08-21    |

| Sample - Field Code | TPH DRO<br>DRO<br>(mg/Kg) | TPH GRO<br>GRO<br>(mg/Kg) |
|---------------------|---------------------------|---------------------------|
| 402936 - T-1 0-1'   | <50.0 n qr                | <4.00                     |
| 402937 - T-1 2'     | <50.0 n qr                | <4.00                     |
| 402938 - T-1 4'     | <50.0 n qr                | <4.00                     |
| 402939 - T-1 6'     | <50.0 n qr                | <4.00                     |
| 402940 - T-1 8'     | <50.0 n qr                | <4.00                     |
| 402941 - T-1 10'    | <50.0 n                   | <4.00                     |
| 402942 - T-2 0-1'   | <50.0 n                   | <4.00                     |
| 402943 - T-2 2'     | <50.0 n                   | <4.00                     |
| 402944 - T-2 4'     | <50.0 n                   | <4.00                     |
| 402945 - T-2 6'     | <50.0 n                   | <4.00                     |
| 402946 - T-2 8'     | <50.0 n                   | <4.00                     |
| 402947 - T-2 10'    | <50.0 n                   | <4.00                     |
| 402948 - T-3 0-1'   | <50.0 n                   | <4.00                     |
| 402949 - T-3 2'     | <50.0 n                   | <4.00                     |
| 402950 - T-3 4'     | <50.0 n                   | <4.00                     |
| 402951 - T-3 6'     | <50.0 n                   | <4.00                     |
| 402952 - T-3 8'     | <50.0 n                   | <4.00                     |
| 402953 - T-3 10'    | <50.0 n                   | <4.00                     |
| 402954 - T-4 0-1'   | <50.0 n                   | <4.00                     |
| 402955 - T-4 2'     | <50.0 n                   | <4.00                     |
| 402956 - T-4 4'     | <50.0 n                   | <4.00                     |
| 402957 - T-4 6'     | <50.0 n                   | <4.00                     |
| 402958 - T-4 8'     | <50.0 n                   | <4.00                     |
| 402959 - T-4 10'    | <50.0 n                   | <4.00                     |

## Sample: 402936 - T-1 0-1'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 490    | mg/Kg | 4  |

## Sample: 402937 - T-1 2'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 490    | mg/Kg | 4  |

## Sample: 402938 - T-1 4'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 196    | mg/Kg | 4  |

## Sample: 402939 - T-1 6'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 196    | mg/Kg | 4  |



**Sample: 402940 - T-1 8'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 392    | mg/Kg | 4  |

**Sample: 402941 - T-1 10'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 94.0   | mg/Kg | 4  |

**Sample: 402942 - T-2 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 1970   | mg/Kg | 4  |

**Sample: 402943 - T-2 2'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 939    | mg/Kg | 4  |

**Sample: 402944 - T-2 4'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 751    | mg/Kg | 4  |

**Sample: 402945 - T-2 6'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 563    | mg/Kg | 4  |

**Sample: 402946 - T-2 8'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 188    | mg/Kg | 4  |

**Sample: 402947 - T-2 10'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 94.0   | mg/Kg | 4  |

**Sample: 402948 - T-3 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 11000  | mg/Kg | 4  |

**Sample: 402949 - T-3 2'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 1690   | mg/Kg | 4  |

**Sample: 402950 - T-3 4'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 282    | mg/Kg | 4  |

**Sample: 402951 - T-3 6'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 190    | mg/Kg | 4  |

**Sample: 402952 - T-3 8'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 379    | mg/Kg | 4  |

**Sample: 402953 - T-3 10'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 402954 - T-4 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 474    | mg/Kg | 4  |

**Sample: 402955 - T-4 2'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 190    | mg/Kg | 4  |

**Sample: 402956 - T-4 4'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 664    | mg/Kg | 4  |

**Sample: 402957 - T-4 6'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 474    | mg/Kg | 4  |

**Sample: 402958 - T-4 8'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 95.0   | mg/Kg | 4  |

**Sample: 402959 - T-4 10'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |



## Summary Report

Robert Grubbs  
COG Operating, LLC  
550 W. Texas Avenue  
Suite 100  
Midland, TX 79701

Report Date: October 16, 2015

Work Order: 15101536



Project Location: Eddy Co, NM  
Project Name: Crossman 25 State #1H  
Project Number: ENV015.0002.1

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|-------------|--------|------------|------------|---------------|
| 406502 | T-5 2'      | soil   | 2015-10-14 | 00:00      | 2015-10-15    |
| 406503 | T-5 4'      | soil   | 2015-10-14 | 00:00      | 2015-10-15    |
| 406504 | T-5 6'      | soil   | 2015-10-14 | 00:00      | 2015-10-15    |
| 406505 | T-5 8'      | soil   | 2015-10-14 | 00:00      | 2015-10-15    |
| 406506 | T-5 10'     | soil   | 2015-10-14 | 00:00      | 2015-10-15    |

**Sample: 406502 - T-5 2'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 3400   | mg/Kg | 4  |

**Sample: 406503 - T-5 4'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 2360   | mg/Kg | 4  |

**Sample: 406504 - T-5 6'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 1510   | mg/Kg | 4  |

**Sample: 406505 - T-5 8'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 1600   | mg/Kg | 4  |

**Sample: 406506 - T-5 10'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 1980   | mg/Kg | 4  |