

# Closure Report

## Site Description

|                    |                               |
|--------------------|-------------------------------|
| Site Name:         | Cedar Canyon 15 SWD #001      |
| Company:           | Oxy Permian Ltd.              |
| Legal Description: | U/L K, Section 15, T24S, R29E |
| County:            | Eddy County, NM               |
| GPS Coordinates:   | N 32.21642° W 103.97592°      |

## Release Data

|                    |                                  |
|--------------------|----------------------------------|
| Date of Release:   | 10/11/2015                       |
| Type of Release:   | Produced water                   |
| Source of Release: | Failure of a transfer line clamp |
| Volume of Release: | 200 bbls                         |
| Volume Recovered:  | 0 bbls                           |

## Remediation Specifications

|                         |                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remediation Parameters: | Excavate the areas surrounding SP1, SP2, SP3, & SP4 to a depth of 1 foot. Excavate the areas around SP5 and SP6 to a depth of 2 feet. Backfill the site with clean soil. |
| Remediation Activities: | August 2016                                                                                                                                                              |

|                       |            |                                               |
|-----------------------|------------|-----------------------------------------------|
| Plan Sent to OCD:     | 12/15/2016 | Email from Cliff Brunson to Heather Patterson |
| OCD Approval of Plan: | 12/16/2016 | Email from Heather Patterson to Cliff Brunson |
| Plan Sent to BLM:     | n/a        | n/a                                           |
| BLM Approval of Plan: | n/a        | n/a                                           |

## Supporting Documentation

|                  |                                                    |
|------------------|----------------------------------------------------|
| Initial C-141    | Signed 11/11/15                                    |
| Final C-141      | Signed 08/22/2016                                  |
| Site Diagram     | November 2015                                      |
| Groundwater Plot | 75'-100'                                           |
| TOPO Maps        | November 2015                                      |
| Lab Summary      | 11/24/2015-11/25/2015                              |
| Lab Analysis     | 11/24/2015-11/25/2015                              |
| Correspondence   | Request and approval of remediation plan via email |

## Request for Closure

Based on the completion of the remediation plan as agreed upon, BBC International requests closure approval from NMOCD.

Cliff Brunson, President of BBC International Inc.

08/22/2016

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**

|                 |                                  |                                                    |                                       |
|-----------------|----------------------------------|----------------------------------------------------|---------------------------------------|
| <b>OPERATOR</b> |                                  | <input checked="" type="checkbox"/> Initial Report | <input type="checkbox"/> Final Report |
| Name of Company | Oxy Permian Ltd.                 | Contact                                            | Dusty Wilson                          |
| Address         | 6 Desta Drive, Midland, TX 79705 | Telephone No.                                      | 432-685-5771                          |
| Facility Name   | Cedar Canyon 15 SWD #001         | Facility Type                                      | Battery                               |
| Surface Owner   | Brantley- McDonald               | Mineral Owner                                      |                                       |
|                 |                                  | API No.                                            | 30-015-42797                          |

**LOCATION OF RELEASE**

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| K           | 15      | 24S      | 29E   |               |                  |               |                | Eddy   |

Latitude 32.21710 Longitude 103.97642

**NATURE OF RELEASE**

|                             |                                                                                                           |                                                      |                   |                            |        |
|-----------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------|----------------------------|--------|
| Type of Release             | Produced water                                                                                            | Volume of Release                                    | 200 bbls          | Volume Recovered           | 0 bbls |
| Source of Release           | Failure of a transfer line clamp                                                                          | Date and Hour of Occurrence                          | 10/11/15          | Date and Hour of Discovery |        |
| Was Immediate Notice Given? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?<br>Heather Patterson, Mike Bratcher |                   |                            |        |
| By Whom?                    | Kathy Purvis @ BBC International                                                                          | Date and Hour                                        | 10/13/15 11:45 am |                            |        |
| Was a Watercourse Reached?  | <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.\*

A transfer line clamp caused 200 bbls of produced water to leak on to the ground. No fluids were recovered and the clamp was replaced.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 100' x 250' on and off location. Remediation will be completed in accordance with the remediation plan approved by NMOCD.

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: Dusty Wilson             | Approved by Environmental Specialist: |                  |                                   |
| Title: Environmental Advisor           | Approval Date:                        | Expiration Date: |                                   |
| E-mail Address: : Dusty.Wilson@oxy.com | Conditions of Approval:               |                  | Attached <input type="checkbox"/> |
| Date: <u>11/11/15</u>                  | Phone:                                |                  |                                   |

\* Attach Additional Sheets If Necessary

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 | Oxy Permian Ltd.                 | Contact       | Casey Summers |
| Address         | 6 Desta Drive, Midland, TX 79705 | Telephone No. | 575-513-8289  |
| Facility Name   | Cedar Canyon 15 SWD #001         | Facility Type | Battery       |

|               |                    |               |  |         |              |
|---------------|--------------------|---------------|--|---------|--------------|
| Surface Owner | Brantley- McDonald | Mineral Owner |  | API No. | 30-015-42797 |
|---------------|--------------------|---------------|--|---------|--------------|

**LOCATION OF RELEASE**

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| K           | 15      | 24S      | 29E   |               |                  |               |                | Eddy   |

Latitude 32.21710 Longitude 103.97642

**NATURE OF RELEASE**

|                             |                                                                                                           |                                                      |                   |                            |        |
|-----------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------|----------------------------|--------|
| Type of Release             | Produced water                                                                                            | Volume of Release                                    | 200 bbls          | Volume Recovered           | 0 bbls |
| Source of Release           | Failure of a transfer line clamp                                                                          | Date and Hour of Occurrence                          | 10/11/15          | Date and Hour of Discovery |        |
| Was Immediate Notice Given? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?<br>Heather Patterson, Mike Bratcher |                   |                            |        |
| By Whom?                    | Kathy Purvis @ BBC International                                                                          | Date and Hour                                        | 10/13/15 11:45 am |                            |        |
| Was a Watercourse Reached?  | <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.\*  
A transfer line clamp caused 200 bbls of produced water to leak on to the ground. No fluids were recovered and the clamp was replaced.

Describe Area Affected and Cleanup Action Taken.\*  
The affected area is approximately 100' x 250' on and off location. Remediation was completed in accordance with the remediation plan approved by Heather Patterson of NMOCD via email on 12/16/2015.

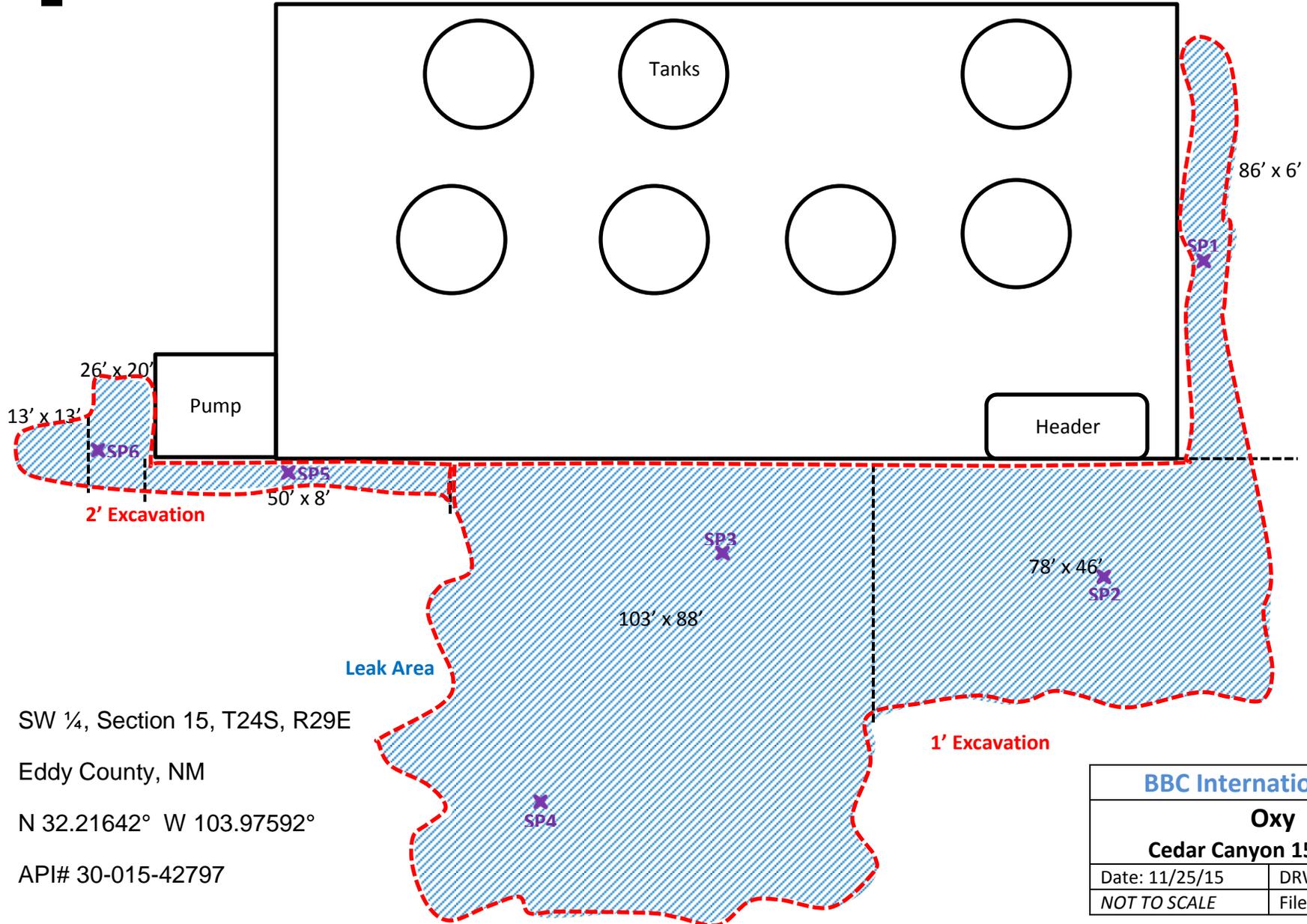
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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:                               | <u>OIL CONSERVATION DIVISION</u>      |                  |                                   |
| Printed Name: Casey Summers              | Approved by Environmental Specialist: |                  |                                   |
| Title: NM Environmental Advisor          | Approval Date:                        | Expiration Date: |                                   |
| E-mail Address: : Casey_Summers@oxy.com  | Conditions of Approval:               |                  | Attached <input type="checkbox"/> |
| Date: <u>8-22-16</u> Phone: 575-513-8289 |                                       |                  |                                   |

\* Attach Additional Sheets If Necessary



Oxy  
Cedar Canyon 15 SWD #1



SW ¼, Section 15, T24S, R29E

Eddy County, NM

N 32.21642° W 103.97592°

API# 30-015-42797

**BBC International, Inc.**

**Oxy  
Cedar Canyon 15 SWD #1**

Date: 11/25/15

DRWG by: K. Purvis

NOT TO SCALE

File: Oxy 2015

# Groundwater Plot

## Oxy Cedar Canyon 15 SWD #001

County  
Eddy

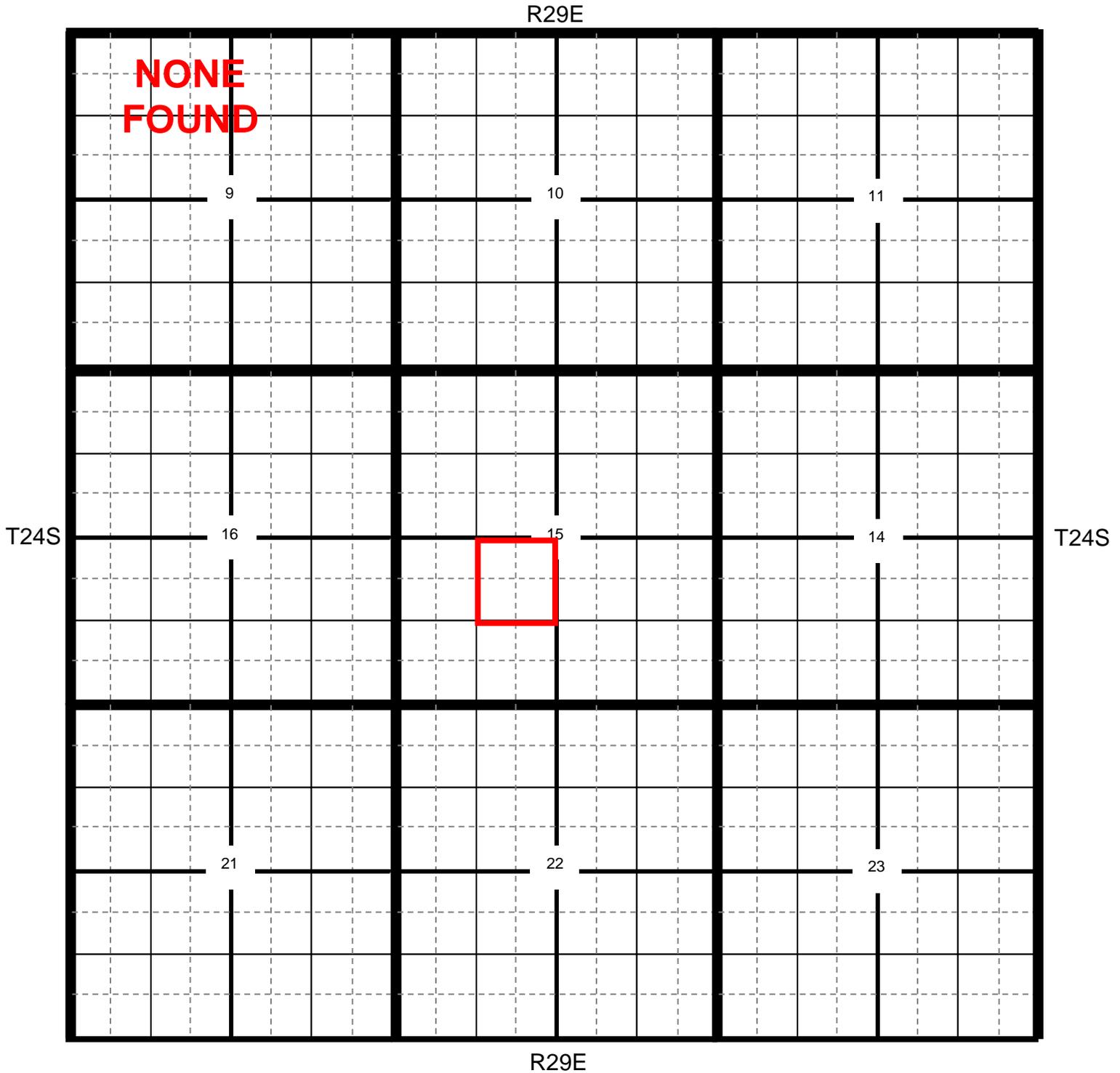
Unit Letter  
K

Section  
15

Township  
24S

Range  
29E

Trend Map 75'-100'



📍 Location

● OCD

● USGS

● SEO

● All Databases

## Oxy Cedar Canyon 15 SWD #001

County Eddy      Unit Letter K      Section 15      Township 24S      Range 29E

Trend Map 75'-100'

1

2

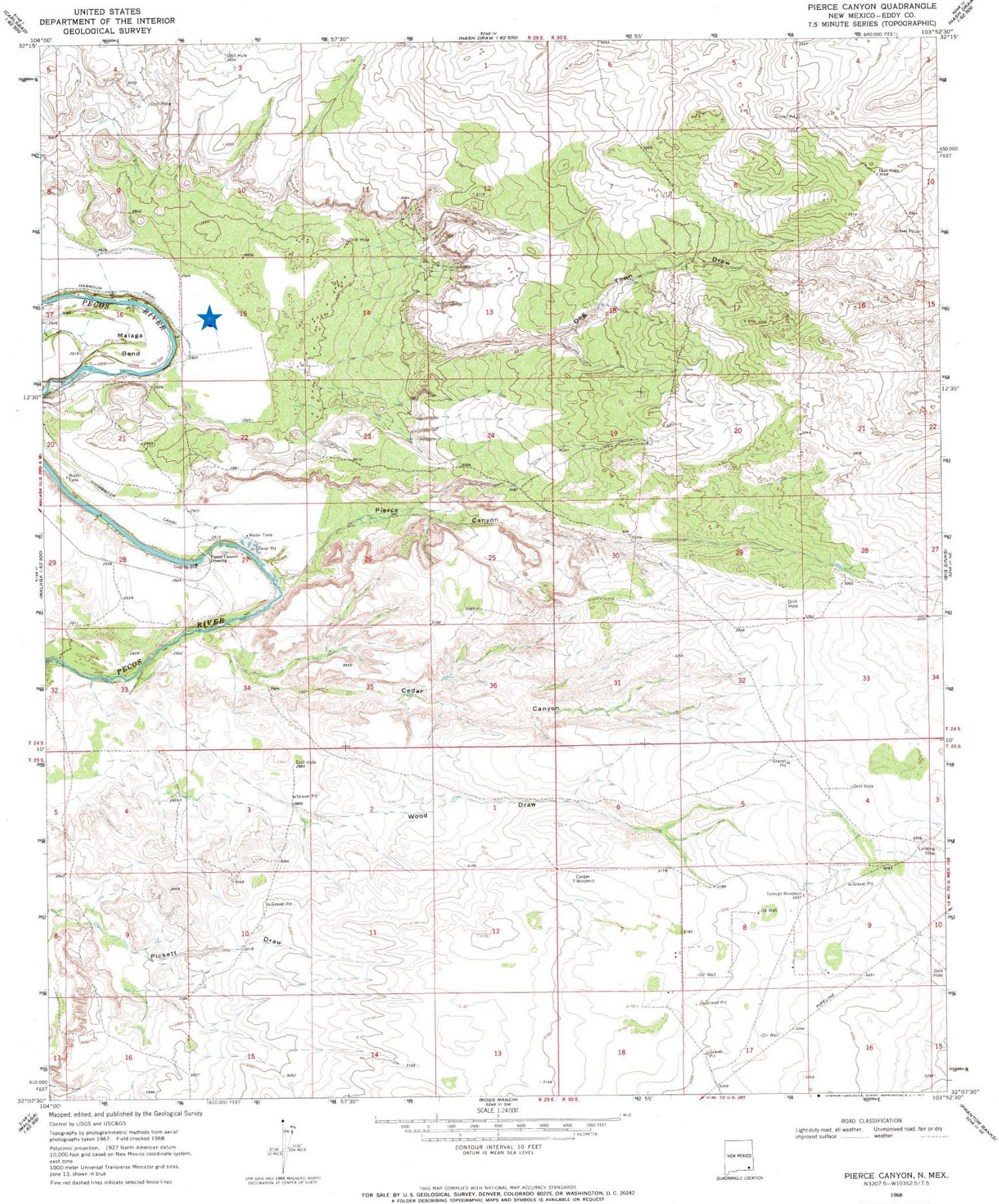
|                                             |                               |                        |                        |
|---------------------------------------------|-------------------------------|------------------------|------------------------|
| NW/NW<br><b>NONE FOUND</b><br>Unit Letter D | NE/NW<br>Unit Letter C        | NW/NE<br>Unit Letter B | NE/NE<br>Unit Letter A |
| SW/NW<br>Unit Letter E                      | SE/NW<br>Unit Letter F        | SW/NE<br>Unit Letter G | SE/NE<br>Unit Letter H |
| NW/SW<br>Unit Letter L                      | <b>NE/SW</b><br>Unit Letter K | NW/SE<br>Unit Letter J | NE/SE<br>Unit Letter I |
| SW/SW<br>Unit Letter M                      | SE/SW<br>Unit Letter N        | SW/SE<br>Unit Letter O | SE/SE<br>Unit Letter P |

3

4

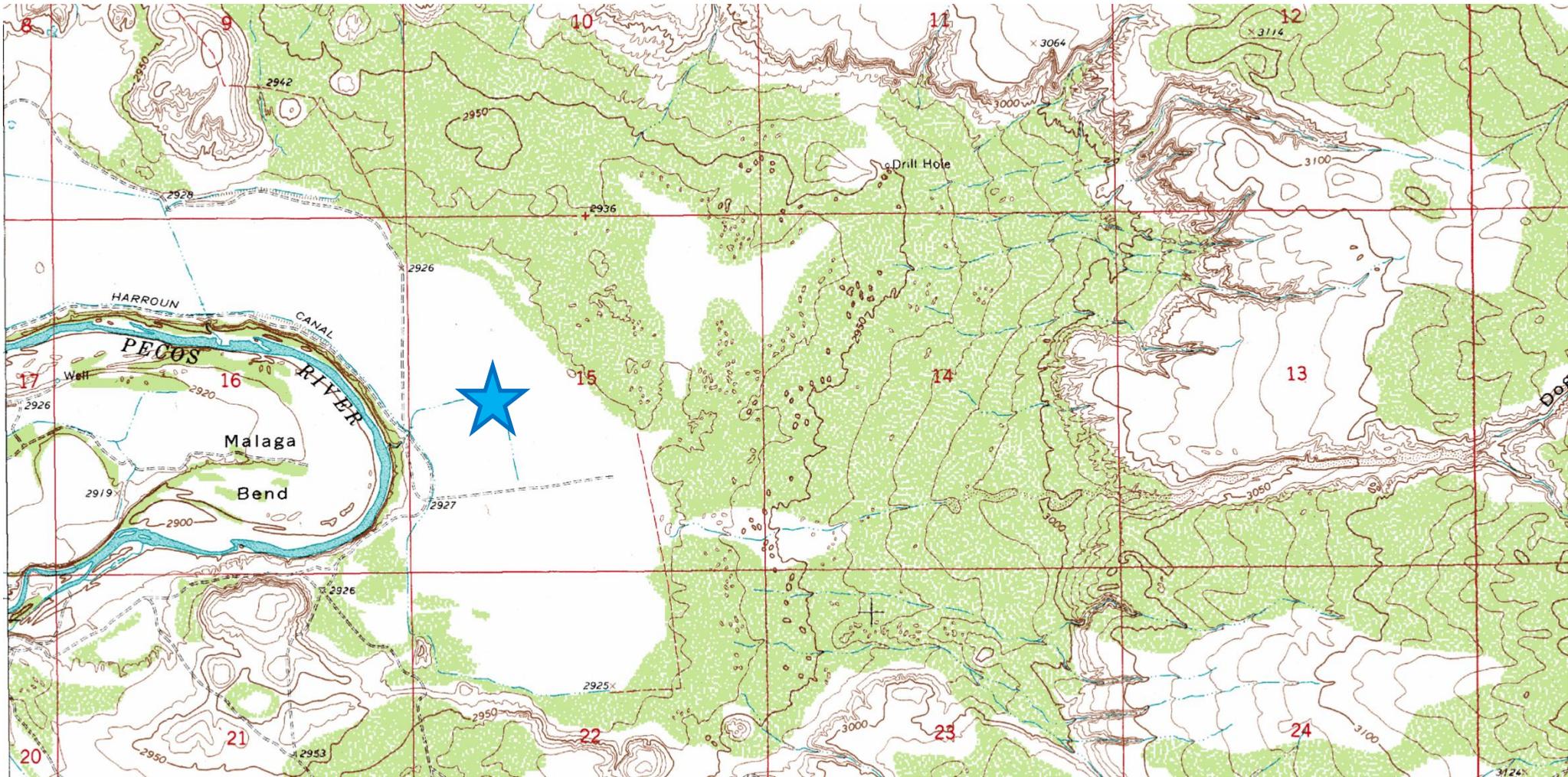
# Oxy

## Cedar Canyon 15 SWD #1



# Oxy

## Cedar Canyon 15 SWD #1



Laboratory Analytical Results Summary  
Cedar Canyon 15 SWD #1

|               |            | Sample | SP1 @ 1' | SP1 @ 2' | SP1 @ 3' |
|---------------|------------|--------|----------|----------|----------|
| Analyte       | Method     | Date   | 11/24/15 | 11/24/15 | 11/24/15 |
|               |            |        | mg/Kg    | mg/Kg    | mg/Kg    |
| Benzene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Toluene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Ethylbenzene  | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Total Xylenes | BTEX 8021B |        | <0.150   | n/a      | n/a      |
| Total BTEX    | BTEX 8021B |        | <0.300   | n/a      | n/a      |
| Chloride      | SM4500Cl-B |        | 3160     | 336      | 192      |
| GRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |
| DRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |

|               |            | Sample | SP2 @ 1' | SP2 @ 2' | SP2 @ 3' |
|---------------|------------|--------|----------|----------|----------|
| Analyte       | Method     | Date   | 11/24/15 | 11/24/15 | 11/24/15 |
|               |            |        | mg/Kg    | mg/Kg    | mg/Kg    |
| Benzene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Toluene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Ethylbenzene  | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Total Xylenes | BTEX 8021B |        | <0.150   | n/a      | n/a      |
| Total BTEX    | BTEX 8021B |        | <0.300   | n/a      | n/a      |
| Chloride      | SM4500Cl-B |        | 3280     | 224      | 128      |
| GRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |
| DRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |

|               |            | Sample | SP3 @ 1' | SP3 @ 2' | SP3 @ 3' |
|---------------|------------|--------|----------|----------|----------|
| Analyte       | Method     | Date   | 11/24/15 | 11/24/15 | 11/24/15 |
|               |            |        | mg/Kg    | mg/Kg    | mg/Kg    |
| Benzene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Toluene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Ethylbenzene  | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Total Xylenes | BTEX 8021B |        | <0.150   | n/a      | n/a      |
| Total BTEX    | BTEX 8021B |        | <0.300   | n/a      | n/a      |
| Chloride      | SM4500Cl-B |        | 13200    | 96       | 128      |
| GRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |
| DRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |

|               |            | Sample | SP4 @ 1' | SP4 @ 2' | SP4 @ 3' |
|---------------|------------|--------|----------|----------|----------|
| Analyte       | Method     | Date   | 11/25/15 | 11/25/15 | 11/25/15 |
|               |            |        | mg/Kg    | mg/Kg    | mg/Kg    |
| Benzene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Toluene       | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Ethylbenzene  | BTEX 8021B |        | <0.050   | n/a      | n/a      |
| Total Xylenes | BTEX 8021B |        | <0.150   | n/a      | n/a      |
| Total BTEX    | BTEX 8021B |        | <0.300   | n/a      | n/a      |
| Chloride      | SM4500Cl-B |        | 400      | 272      | 192      |
| GRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |
| DRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      |

|               |            | Sample | SP5 @ 1' | SP5 @ 2' | SP5 @ 3' | SP5 @ 4' |
|---------------|------------|--------|----------|----------|----------|----------|
| Analyte       | Method     | Date   | 11/25/15 | 11/25/15 | 11/25/15 | 11/25/15 |
|               |            |        | mg/Kg    | mg/Kg    | mg/Kg    | mg/Kg    |
| Benzene       | BTEX 8021B |        | <0.050   | n/a      | n/a      | n/a      |
| Toluene       | BTEX 8021B |        | <0.050   | n/a      | n/a      | n/a      |
| Ethylbenzene  | BTEX 8021B |        | <0.050   | n/a      | n/a      | n/a      |
| Total Xylenes | BTEX 8021B |        | <0.150   | n/a      | n/a      | n/a      |
| Total BTEX    | BTEX 8021B |        | <0.300   | n/a      | n/a      | n/a      |
| Chloride      | SM4500Cl-B |        | 1100     | 432      | 1040     | 192      |
| GRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      | n/a      |
| DRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      | n/a      |

|               |            | Sample | SP6 @ 1' | SP6 @ 2' | SP6 @ 3' | SP6 @ 4' |
|---------------|------------|--------|----------|----------|----------|----------|
| Analyte       | Method     | Date   | 11/25/15 | 11/25/15 | 11/25/15 | 11/25/15 |
|               |            |        | mg/Kg    | mg/Kg    | mg/Kg    | mg/Kg    |
| Benzene       | BTEX 8021B |        | <0.050   | n/a      | n/a      | n/a      |
| Toluene       | BTEX 8021B |        | <0.050   | n/a      | n/a      | n/a      |
| Ethylbenzene  | BTEX 8021B |        | <0.050   | n/a      | n/a      | n/a      |
| Total Xylenes | BTEX 8021B |        | <0.150   | n/a      | n/a      | n/a      |
| Total BTEX    | BTEX 8021B |        | <0.300   | n/a      | n/a      | n/a      |
| Chloride      | SM4500Cl-B |        | 1200     | 1120     | 768      | 192      |
| GRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      | n/a      |
| DRO           | TPH 8015M  |        | <10.0    | n/a      | n/a      | n/a      |



December 08, 2015

Cliff Brunson  
BBC International, Inc.  
P.O. Box 805  
Hobbs, NM 88241

RE: CEDAR CANYON 15 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 12/01/15 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/24/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 1 @ 1' (H503145-01)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.862 |           |
| Toluene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.866 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 12/03/2015 | ND              | 1.77 | 88.4       | 2.00          | 1.29  |           |
| Total Xylenes* | <0.150 | 0.150           | 12/03/2015 | ND              | 5.34 | 89.0       | 6.00          | 1.20  |           |
| Total BTEX     | <0.300 | 0.300           | 12/03/2015 | ND              |      |            |               |       |           |

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140*

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>3160</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 12/03/2015 | ND              | 193 | 96.3       | 200           | 4.68 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 12/03/2015 | ND              | 190 | 94.8       | 200           | 6.86 |           |

*Surrogate: 1-Chlorooctane 96.8 % 35-147*
*Surrogate: 1-Chlorooctadecane 103 % 28-171*
**Sample ID: SP 1 @ 2' (H503145-02)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>336</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/24/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 1 @ 3' (H503145-03)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>192</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

**Sample ID: SP 2 @ 1' (H503145-04)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.862 |           |
| Toluene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.866 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 12/03/2015 | ND              | 1.77 | 88.4       | 2.00          | 1.29  |           |
| Total Xylenes* | <0.150 | 0.150           | 12/03/2015 | ND              | 5.34 | 89.0       | 6.00          | 1.20  |           |
| Total BTEX     | <0.300 | 0.300           | 12/03/2015 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>3280</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 12/03/2015 | ND              | 193 | 96.3       | 200           | 4.68 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 12/03/2015 | ND              | 190 | 94.8       | 200           | 6.86 |           |

Surrogate: 1-Chlorooctane 90.6 % 35-147

Surrogate: 1-Chlorooctadecane 102 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/24/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 2 @ 2' (H503145-05)**

| Chloride, SM4500Cl-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>224</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

**Sample ID: SP 2 @ 3' (H503145-06)**

| Chloride, SM4500Cl-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>128</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/24/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 3 @ 1' (H503145-07)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.862 |           |
| Toluene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.866 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 12/03/2015 | ND              | 1.77 | 88.4       | 2.00          | 1.29  |           |
| Total Xylenes* | <0.150 | 0.150           | 12/03/2015 | ND              | 5.34 | 89.0       | 6.00          | 1.20  |           |
| Total BTEX     | <0.300 | 0.300           | 12/03/2015 | ND              |      |            |               |       |           |

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140*

| Chloride, SM4500CI-B |              | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result       | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>13200</b> | 16.0            | 12/04/2015 | ND              | 432 | 108        | 400           | 0.00 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 12/03/2015 | ND              | 193 | 96.3       | 200           | 4.68 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 12/03/2015 | ND              | 190 | 94.8       | 200           | 6.86 |           |

*Surrogate: 1-Chlorooctane 96.3 % 35-147*
*Surrogate: 1-Chlorooctadecane 105 % 28-171*
**Sample ID: SP 3 @ 2' (H503145-08)**

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>96.0</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/24/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 3 @ 3' (H503145-09)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>128</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

**Sample ID: SP 4 @ 1' (H503145-10)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.862 |           |
| Toluene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.866 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 12/03/2015 | ND              | 1.77 | 88.4       | 2.00          | 1.29  |           |
| Total Xylenes* | <0.150 | 0.150           | 12/03/2015 | ND              | 5.34 | 89.0       | 6.00          | 1.20  |           |
| Total BTEX     | <0.300 | 0.300           | 12/03/2015 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>400</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 12/03/2015 | ND              | 193 | 96.3       | 200           | 4.68 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 12/03/2015 | ND              | 190 | 94.8       | 200           | 6.86 |           |

Surrogate: 1-Chlorooctane 92.3 % 35-147

Surrogate: 1-Chlorooctadecane 101 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/25/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 4 @ 2' (H503145-11)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>272</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

**Sample ID: SP 4 @ 3' (H503145-12)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>192</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/25/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 5 @ 1' (H503145-13)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.862 |           |
| Toluene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.866 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 12/03/2015 | ND              | 1.77 | 88.4       | 2.00          | 1.29  |           |
| Total Xylenes* | <0.150 | 0.150           | 12/03/2015 | ND              | 5.34 | 89.0       | 6.00          | 1.20  |           |
| Total BTEX     | <0.300 | 0.300           | 12/03/2015 | ND              |      |            |               |       |           |

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140*

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>1100</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 12/03/2015 | ND              | 193 | 96.3       | 200           | 4.68 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 12/03/2015 | ND              | 190 | 94.8       | 200           | 6.86 |           |

*Surrogate: 1-Chlorooctane 98.4 % 35-147*
*Surrogate: 1-Chlorooctadecane 109 % 28-171*
**Sample ID: SP 5 @ 2' (H503145-14)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>432</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/25/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 5 @ 3' (H503145-15)**

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>1040</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

**Sample ID: SP 5 @ 4' (H503145-16)**

| Chloride, SM4500CI-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>192</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/25/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 6 @ 1' (H503145-17)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.862 |           |
| Toluene*       | <0.050 | 0.050           | 12/03/2015 | ND              | 1.71 | 85.5       | 2.00          | 0.866 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 12/03/2015 | ND              | 1.77 | 88.4       | 2.00          | 1.29  |           |
| Total Xylenes* | <0.150 | 0.150           | 12/03/2015 | ND              | 5.34 | 89.0       | 6.00          | 1.20  |           |
| Total BTEX     | <0.300 | 0.300           | 12/03/2015 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>1200</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

| TPH 8015M    |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte      | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10   | <10.0  | 10.0            | 12/03/2015 | ND              | 193 | 96.3       | 200           | 4.68 |           |
| DRO >C10-C28 | <10.0  | 10.0            | 12/03/2015 | ND              | 190 | 94.8       | 200           | 6.86 |           |

Surrogate: 1-Chlorooctane 87.7 % 35-147

Surrogate: 1-Chlorooctadecane 95.1 % 28-171

**Sample ID: SP 6 @ 2' (H503145-18)**

| Chloride, SM4500CI-B |             | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>1120</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

|                   |                        |                     |               |
|-------------------|------------------------|---------------------|---------------|
| Received:         | 12/01/2015             | Sampling Date:      | 11/25/2015    |
| Reported:         | 12/08/2015             | Sampling Type:      | Soil          |
| Project Name:     | CEDAR CANYON 15 SWD #1 | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN             | Sample Received By: | Jodi Henson   |
| Project Location: | NOT GIVEN              |                     |               |

**Sample ID: SP 6 @ 3' (H503145-19)**

| Chloride, SM4500Cl-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>768</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

**Sample ID: SP 6 @ 4' (H503145-20)**

| Chloride, SM4500Cl-B |            | mg/kg           |            | Analyzed By: AP |     |            |               |      |           |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| <b>Chloride</b>      | <b>192</b> | 16.0            | 12/04/2015 | ND              | 464 | 116        | 400           | 3.51 |           |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

|     |                                                                                                                                                                |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |





**CARDINAL LABORATORIES**  
 101 East Marland, Hobbs, NM 88240  
 (505) 393-2326 FAX (505) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

1022

|                                       |  |                     |  |                |  |                  |  |        |  |          |  |
|---------------------------------------|--|---------------------|--|----------------|--|------------------|--|--------|--|----------|--|
| Company Name: BBC International, Inc. |  | P.O. #:             |  | <b>BILL TO</b> |  | ANALYSIS REQUEST |  |        |  |          |  |
| Project Manager: Cliff Brunson        |  | Company:            |  |                |  |                  |  |        |  |          |  |
| Address: P.O. Box 805                 |  | City: Hobbs         |  | State: NM      |  | Zip: 88241       |  | Attn:  |  |          |  |
| Phone #: 575-397-6388                 |  | Fax #: 575-397-0397 |  | Address:       |  | City:            |  | State: |  | Zip:     |  |
| Project #:                            |  | Project Owner: Oxy  |  | City:          |  | State:           |  | Zip:   |  |          |  |
| Project Name: EPAC CANYON 15 SWP # 1  |  | Project Location:   |  | Phone #:       |  | Fax #:           |  |        |  |          |  |
| Sampler Name: Paez Hernandez          |  | FOR LAB USE ONLY    |  | PRESERV:       |  | SAMPLING         |  |        |  |          |  |
| Lab I.D. H503145                      |  | Sample I.D.         |  | MATRIX         |  | DATE             |  | TIME   |  |          |  |
|                                       |  |                     |  | GROUNDWATER    |  | 11-24-15         |  | 9:51   |  | TPH      |  |
|                                       |  |                     |  | WASTEWATER     |  | 11-24-15         |  | 10:30  |  | BTEX     |  |
|                                       |  |                     |  | SOIL           |  | 11-24-15         |  | 10:55  |  | CHLORIDE |  |
|                                       |  |                     |  | OIL            |  | 11-24-15         |  | 11:58  |  |          |  |
|                                       |  |                     |  | SLUDGE         |  | 11-24-15         |  | 12:55  |  |          |  |
|                                       |  |                     |  | OTHER :        |  | 11-24-15         |  | 1:11   |  |          |  |
|                                       |  |                     |  | ACID/BASE:     |  | 11-24-15         |  | 2:08   |  |          |  |
|                                       |  |                     |  | ICE / COOL     |  | 11-24-15         |  | 3:00   |  |          |  |
|                                       |  |                     |  | OTHER :        |  | 11-24-15         |  | 3:10   |  |          |  |
|                                       |  |                     |  |                |  | 11-24-15         |  | 9:11   |  |          |  |

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

|                                            |                |                                                                                            |                                                                        |                |
|--------------------------------------------|----------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------|
| Relinquished By: Paez Hernandez            | Date: 12-01-15 | Received By: Jennifer Gentry                                                               | Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Phone #: |
| Relinquished By: Jennifer Gentry           | Date: 12-1-15  | Received By: Paez Hernandez                                                                | Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No   | Add'l Fax #:   |
| Delivered By: (Circle One) Jennifer Gentry | Date: 12-1-15  | Sample Condition: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool | REMARKS:                                                               |                |
| Sampler - UPS - Bus - Other: 2.16c         | Time: 2:45     | Checked By: (Initials) Paez Hernandez                                                      |                                                                        |                |

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #54



**ARDINAL LABORATORIES**  
 101 East Marland, Hobbs, NM 88240  
 (505) 393-2326 FAX (505) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**ANALYSIS REQUEST**

|                                       |  |             |  |             |  |                  |  |  |  |  |  |
|---------------------------------------|--|-------------|--|-------------|--|------------------|--|--|--|--|--|
| Company Name: BBC International, Inc. |  | P.O. #:     |  | BILL TO     |  | ANALYSIS REQUEST |  |  |  |  |  |
| Project Manager: Cliff Brunson        |  | Company:    |  | Company:    |  |                  |  |  |  |  |  |
| Address: P.O. Box 805                 |  | Attn:       |  | Attn:       |  |                  |  |  |  |  |  |
| City: Hobbs                           |  | Address:    |  | Address:    |  |                  |  |  |  |  |  |
| Phone #: 575-397-6388                 |  | City:       |  | City:       |  |                  |  |  |  |  |  |
| Project #:                            |  | State:      |  | State:      |  |                  |  |  |  |  |  |
| Project Name: CEDAR CANYON 15 SUPP# 1 |  | Zip:        |  | Zip:        |  |                  |  |  |  |  |  |
| Project Location:                     |  | Phone #:    |  | Phone #:    |  |                  |  |  |  |  |  |
| Sampler Name: PAPER HERNANDEZ         |  | Fax #:      |  | Fax #:      |  |                  |  |  |  |  |  |
| FOR LAB USE ONLY                      |  | PRESERV     |  | PRESERV     |  |                  |  |  |  |  |  |
| Lab I.D. H503145                      |  | SAMPLE I.D. |  | SAMPLE I.D. |  |                  |  |  |  |  |  |
|                                       |  | DATE        |  | DATE        |  |                  |  |  |  |  |  |
|                                       |  | TIME        |  | TIME        |  |                  |  |  |  |  |  |
|                                       |  | TPH         |  | TPH         |  |                  |  |  |  |  |  |
|                                       |  | BTEX        |  | BTEX        |  |                  |  |  |  |  |  |
|                                       |  | CHLORIDE    |  | CHLORIDE    |  |                  |  |  |  |  |  |

PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors resulting out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

|                                            |                |                              |                                                                        |
|--------------------------------------------|----------------|------------------------------|------------------------------------------------------------------------|
| Relinquished By: PAPER HERNANDEZ           | Date: 12-15-15 | Received By: Jennifer Gentry | Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Relinquished By: Jennifer Gentry           | Date: 12-1-15  | Received By: Heidi Hernandez | Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No   |
| Delivered By: (Circle One) Jennifer Gentry | Time: 8:45     | CHECKED BY: (Initials)       | Add'l Phone #:                                                         |
| Sampler - UPS - Bus - Other:               |                |                              | Add'l Fax #:                                                           |

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #54

## Kathy Purvis

---

**From:** Patterson, Heather, EMNRD <Heather.Patterson@state.nm.us>  
**Sent:** Wednesday, December 16, 2015 1:24 PM  
**To:** Cliff Brunson; Bratcher, Mike, EMNRD  
**Cc:** Dusty Wilson; Jennifer\_Duarte@oxy.com; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** RE: OXY - Cedar Canyon 15 SWD #1 - Remediation Plan

RE: Oxy \* Cedar Canyon 15 SWD #1 \* 30-015-42797 \* 2RP-3384

Cliff,

This work plan is approved as written.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Heather Patterson  
Environmental Specialist  
NMOCD District II  
Office (575)748-1283 ext.101  
Cell (575)703-0228

---

**From:** Cliff Brunson [<mailto:cbrunson@bbcinternational.com>]  
**Sent:** Tuesday, December 15, 2015 7:05 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** Dusty Wilson; [Jennifer\\_Duarte@oxy.com](mailto:Jennifer_Duarte@oxy.com); Patterson, Heather, EMNRD; Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** OXY - Cedar Canyon 15 SWD #1 - Remediation Plan

Mike,

I have attached the remediation plan for the Oxy Cedar Canyon 15 SWD #1 release. In the packet you will find a cover page describing what Oxy proposes along with the site diagram depicting the excavation areas and the associated lab data and initial C-141.

If you would please review this request and if it is acceptable, please respond via email with your approval, it would be greatly appreciated.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists  
Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA

Phone: (575) 397-6388

Fax: (575) 397-0397

E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)

\*\*\*\*\*

Confidentiality Notice: This electronic transmission (and any attached documents) is intended only for the person(s) to whom it is addressed and may contain information that is privileged, confidential, or otherwise protected from disclosure. If you have received this transmission in error, please immediately notify the sender by e-mail or by telephone call to (575) 397-6388 for handling instructions. Any disclosure or distribution of the contents of this transmission by anyone other than the named recipient(s) is strictly prohibited.

\*\*\*\*\*

No virus found in this message.

Checked by AVG - [www.avg.com](http://www.avg.com)

Version: 2015.0.6176 / Virus Database: 4483/11191 - Release Date: 12/16/15





