

Closure Report

Site Description

| | |
|--------------------|-------------------------------|
| Site Name: | McKittrick Hills CTB |
| Company: | Oxy Permian |
| Legal Description: | U/L A, Section 14, T22S, R24E |
| County: | Eddy County, NM |
| GPS Coordinates: | N 32.39762° W-104.46145° |

Release Data

| | |
|--------------------|-----------------------------------|
| Date of Release: | 01/07/2017 |
| Type of Release: | Produced water |
| Source of Release: | Faulty 3" ball valve on separator |
| Volume of Release: | 8 bbls |
| Volume Recovered: | 0 bbls |

Remediation Specifications

| | | |
|-------------------------|--|---|
| Remediation Parameters: | Excavate the entire spill to a depth of 6 inches. Backfill the site with clean soil. | |
| Remediation Activities: | March 2017 | |
| Plan Sent to OCD: | 02/07/2017 | Email from Cliff Brunson to Mike Bratcher |
| OCD Approval of Plan: | 02/15/2017 | Email from Mike Bratcher to Cliff Brunson |
| Plan Sent to BLM: | 02/07/2017 | Email from Cliff Brunson to Shelly Tucker |
| BLM Approval of Plan: | 02/14/2017 | Email from Shelly Tucker to Cliff Brunson |

Supporting Documentation

| | |
|------------------|--|
| Initial C-141 | Signed 01/19/2017 |
| Final C-141 | Upon completion |
| Site Diagram | January 2017 |
| Groundwater Plot | 100'-125' |
| TOPO Maps | January 2017 |
| Lab Summary | 01/25/2017 |
| Lab Analysis | 01/25/2017 |
| Correspondence | Request and approval of remediation plan via email |

Request for Closure

Based on the completion of the remediation plan, Oxy Permian requests closure approval from NMOCD.

Wade Dittrich, Environmental Specialists, Oxy Permian

02/20/2018

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

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 19 2017

Form C-141
Revised August 8, 2011

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

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

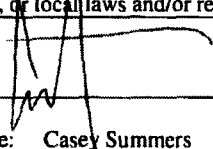
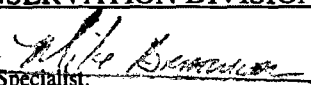
| | | | |
|-----------------|---------------------------------------|---------------|----------------|
| Name of Company | Oxy Permian Ltd. 192463 | Contact | Casey Summers |
| Address | PO Box 4294; Houston, TX 77210 | Telephone No. | (575) 513-8289 |
| Facility Name | McKittrick Hills Central Tank Battery | Facility Type | Battery |
| Surface Owner | BLM | Mineral Owner | |
| | | API No. | 30-015-21010 |

LOCATION OF RELEASE

| | | | | | | | | |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|-----------------|
| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
| A | 14 | 22S | 24E | | | | | Eddy County, NM |

Latitude N 32.39762° Longitude W 104.46145°

NATURE OF RELEASE

| | | | | | |
|--|---|---|--|-----------------------------------|--------|
| Type of Release | Produced water | Volume of Release | 8 bbls | Volume Recovered | 0 bbls |
| Source of Release | Faulty 3" ball valve on separator | Date and Hour of Occurrence | 01/07/2017 | Date and Hour of Discovery | |
| Was Immediate Notice Given? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | Mike Bratcher, Crystal Weaver-NMOCD; Shelly Tucker-BLM | | |
| By Whom? | Kathy Purvis @ BBC International | Date and Hour | 01/10/2017 @ 10:01 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 faulty ball valve on the separator caused a leak of 8 bbls of produced water. No fluids were recovered and the valve was returned to service. | | | | | |
| Describe Area Affected and Cleanup Action Taken.* | | | | | |
| The affected area is approximately 80' x 55' on location. Remediation will be completed in accordance with a remediation plan approved by both NMOCD and the BLM. | | | | | |
| 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:  | | OIL CONSERVATION DIVISION | | | |
| Printed Name: Casey Summers | | Signed By:  Approved by Environmental Specialist: | | | |
| Title: NM Environmental Advisor | | Approval Date: 1/23/17 | | Expiration Date: N/A | |
| E-mail Address: Casey_Summers@oxy.com | | Conditions of Approval: See attached | | Attached <input type="checkbox"/> | |
| Date: 1-19-17 | | Phone: (575) 513-8289 | | | |

* Attach Additional Sheets If Necessary

2RP-4087

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/19/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number ARP-4087 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 2/17/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: Kathy Purvis <kathy@bbcinternational.com>
Sent: Thursday, January 19, 2017 4:07 PM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; stucker@blm.gov
Cc: Casey_Summers@oxy.com; Jennifer_Hudgens@oxy.com;
cbrunson@bbcinternational.com; kswinney@bbcinternational.com;
jgilkey@bbcinternational.com
Subject: Initial C-141, McKittrick Hills CTB
Attachments: Initial C-141, McKittrick Hills CTB.pdf

Attached is the initial C-141 for a leak that occurred at the McKittrick Hills CTB on 01/07/2017 in Eddy County, NM. Receipt notification and the RP number via email are greatly appreciated.

Kathy Purvis

BBC International, Inc.
1324 W. Marland Blvd.
Hobbs, NM 88240
Business: (575) 397-6388
Cell: (575) 441-8619
kathy@bbcinternational.com

Bratcher, Mike, EMNRD

From: Kathy Purvis <kathy@bbcinternational.com>
Sent: Tuesday, January 10, 2017 10:01 AM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; stucker@blm.gov
Cc: Casey_Summers@oxy.com; Jennifer_Hudgens@oxy.com;
cbrunson@bbcinternational.com; kswinney@bbcinternational.com;
jgilkey@bbcinternational.com; kathy@bbcinternational.com
Subject: McKittrick Hills CTB

This is to inform you that Oxy Permian had a release at the McKittrick Hills CTB on 01/07/2017. Oxy released 8 bbls of produced water due to a faulty 3" ball valve on the separator. The preliminary report indicates that the leak measure approximately 100' x 100' on location within the facility. It is unknown if recovery efforts were made at this time. The release is located in the NE ¼ of Section 14, T22S, R24E in Eddy County, NM. Driving directions: From Carlsbad, go N on US285 to MM44, turn L on Water Hole Rd 2MI to Big Walt sign on L, take 1st R 0.5MI to leak location API#30-015-21010 GPS coordinates: N 32.39774 W 104.46110

Kathy Purvis

BBC International, Inc.
1324 W. Marland Blvd.
Hobbs, NM 88240
Business: (575) 397-6388
Cell: (575) 441-8619
kathy@bbcinternational.com

Bratcher, Mike, EMNRD

From: Tucker, Shelly <stucker@blm.gov>
Sent: Tuesday, January 10, 2017 10:04 AM
To: Kathy Purvis
Cc: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Casey Summers; Jennifer_Hudgens@oxy.com; Cliff Brunson; Ken Swinney; Jennifer Gilkey
Subject: Re: McKittrick Hills CTB

Thank you for the notification.

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

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
O&G Spill/Release Coordinator

Bureau of Land Management
620 E. Greene St
Carlsbad, NM 88220

575.234.5905 - Direct
575.361.0084 - Cellular
575.234.6235 - Emergency Spill Number

stucker@blm.gov

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

Confidentiality Warning: This message along with any attachments are intended only for use of the individual or entity to which it is addressed and may contain information that is privileged or confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

On Tue, Jan 10, 2017 at 10:01 AM, Kathy Purvis <kathy@bbcinternational.com> wrote:

This is to inform you that Oxy Permian had a release at the McKittrick Hills CTB on 01/07/2017. Oxy released 8 bbls of produced water due to a faulty 3" ball valve on the separator. The preliminary report indicates that the leak measure approximately 100' x 100' on location within the facility. It is unknown if recovery efforts were made at this time. The release is located in the NE ¼ of Section 14, T22S, R24E in Eddy County, NM. Driving directions: From Carlsbad, go N on US285 to MM44, turn L on Water Hole Rd 2MI to

Big Walt sign on L, take 1st R 0.5MI to leak location API#30-015-21010 GPS coordinates: N 32.39774 W 104.46110

Kathy Purvis

BBC International, Inc.

1324 W. Marland Blvd.

Hobbs, NM 88240

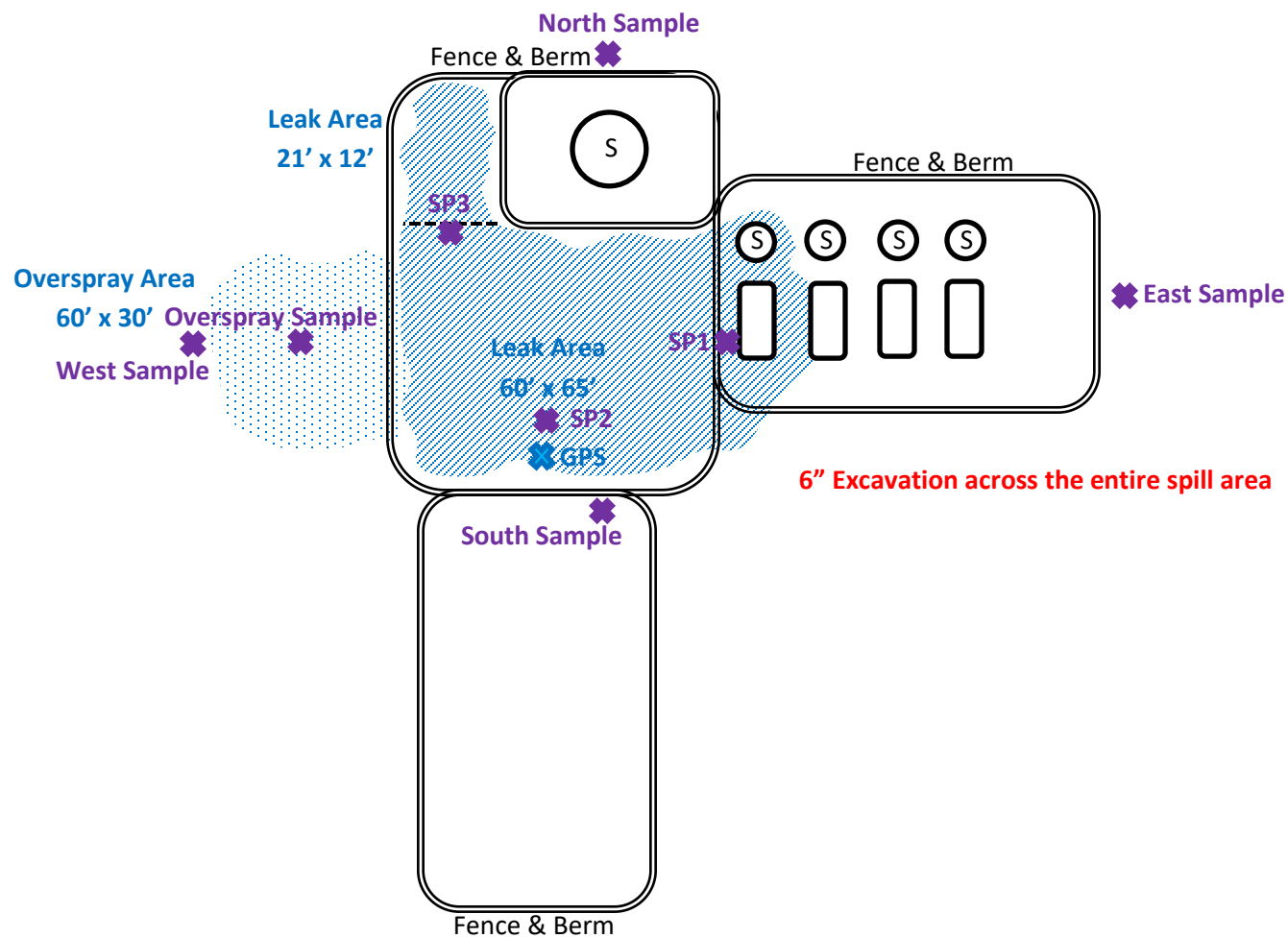
Business: (575) 397-6388

Cell: (575) 441-8619

kathy@bbcinternational.com



Oxy
McKittrick Hills CTB (1/7/17)



U/L A , Section 14, T22S, R24E

Eddy County, NM

N 32.39762° W 104.46145°

API# 30-015-21010

BBC International, Inc.

Oxy

McKittrick Hills CTB

Date: 01/19/2017

DRWG by: K. Purvis

NOT TO SCALE

File: Oxy 2017



Groundwater Plot

Oxy McKittrick Hills CTB

County
Eddy

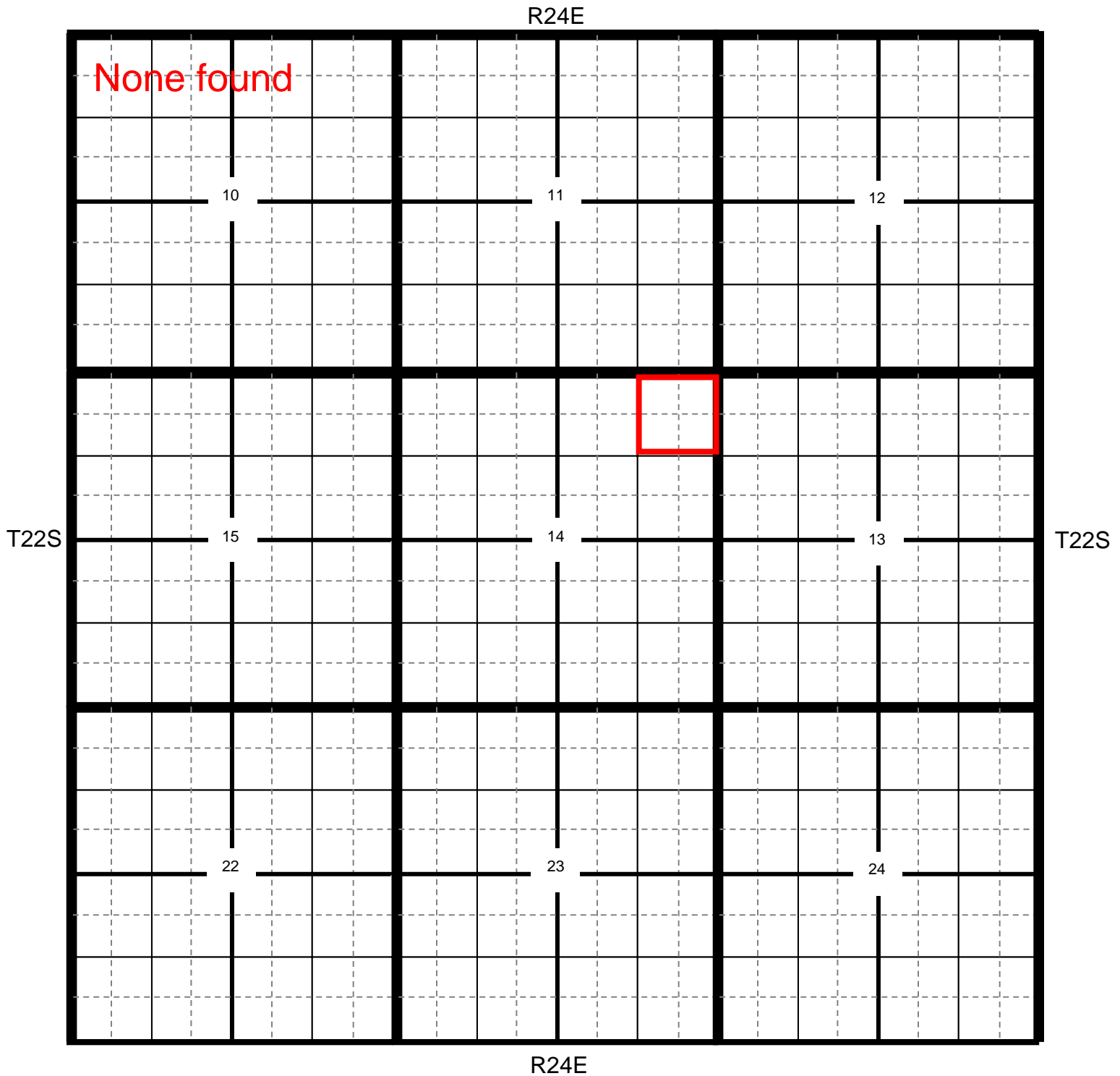
Unit Letter
A

Section
14

Township
22S

Range
24E

Trend Map 100'-125'



★ Location

● OCD

● USGS

● SEO

● All Databases

Oxy McKittrick Hills CTB

County Eddy **Unit Letter** A **Section** 14 **Township** 22S **Range** 24E

Trend Map 100'-125'

1

2

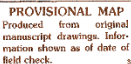
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|--------------------------------------|------------------------|------------------------|------------------------|
| NW/NW None found Unit Letter D | NE/NW Unit Letter C | NW/NE Unit Letter B | NE/NE Unit Letter A |
| SW/NW Unit Letter E | SE/NW Unit Letter F | SW/NE Unit Letter G | SE/NE Unit Letter H |
| NW/SW Unit Letter L | NE/SW Unit Letter K | NW/SE Unit Letter J | NE/SE Unit Letter I |
| SW/SW Unit Letter M | SE/SW Unit Letter N | SW/SE Unit Letter O | SE/SE Unit Letter P |

3

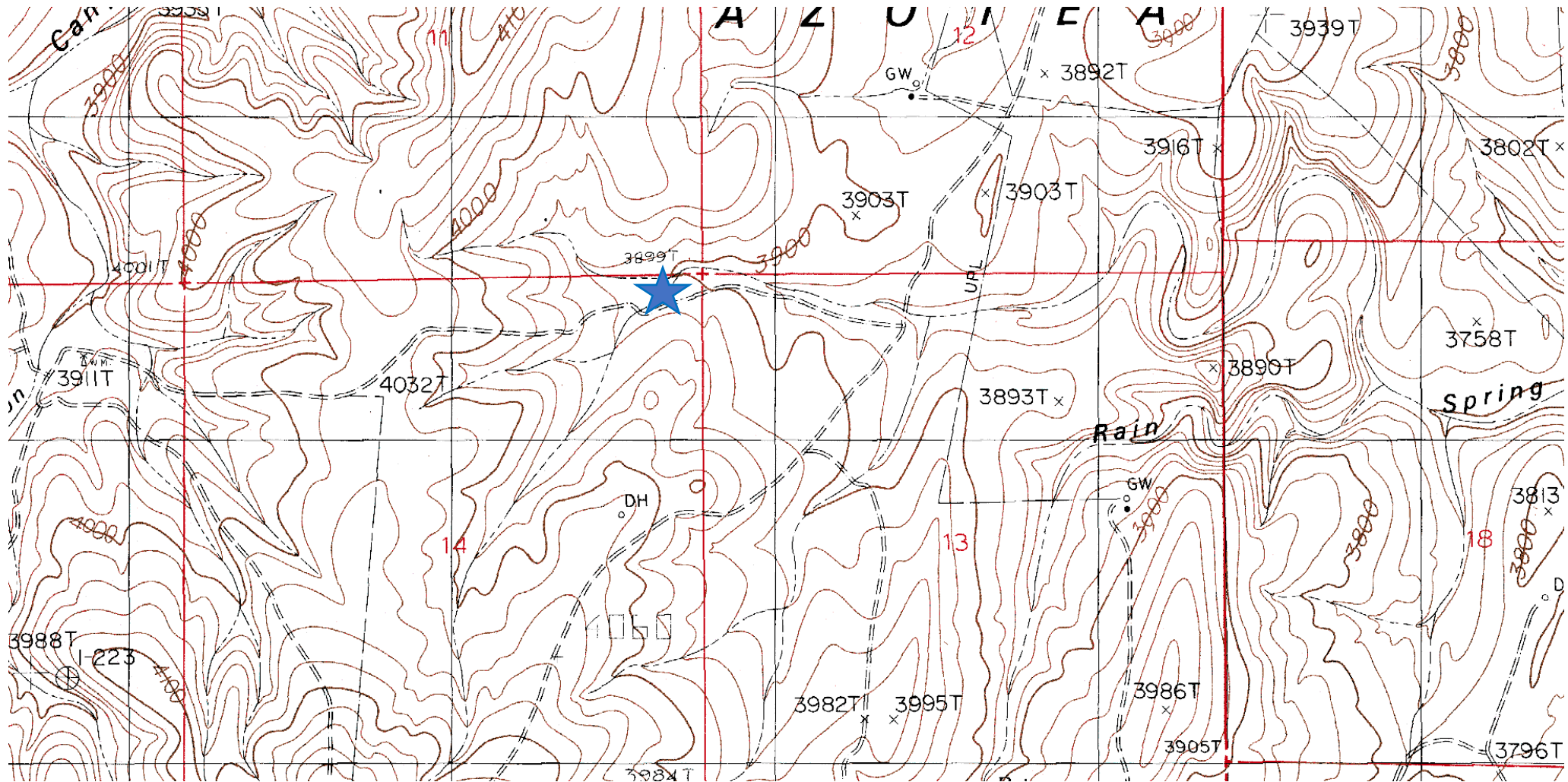
4

Oxy

AZOTEA PEAK QUADRANGLE
NEW MEXICO-EDDY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Oxy



**Laboratory Analytical Results Summary
McKittrick Hills CTB**

| | | Sample | SP1 @ SURFACE | SP1 @ 1' |
|----------------------|------------|--------|------------------|-------------|
| Analyte | Method | Date | 1/25/17 | 1/25/17 |
| | | | mg/Kg | mg/Kg |
| Benzene | BTEX 8021B | | n/a | <0.050 |
| Toluene | BTEX 8021B | | n/a | <0.050 |
| Ethylbenzene | BTEX 8021B | | n/a | <0.050 |
| Total Xylenes | BTEX 8021B | | n/a | <0.150 |
| Total BTEX | BTEX 8021B | | n/a | <0.300 |
| Chloride | SM4500Cl-B | | 128 | 48 |
| GRO | TPH 8015M | | n/a | <10.0 |
| DRO | TPH 8015M | | n/a | 2900 |

| | | Sample | SP2 @ SURFACE | SP2 @ 1' |
|-----------------|------------|--------|------------------|-----------|
| Analyte | Method | Date | 1/25/17 | 1/25/17 |
| | | | mg/Kg | mg/Kg |
| Chloride | SM4500Cl-B | | 112 | 48 |

| | | Sample | SP3 @ SURFACE | SP3 @ 1' |
|----------------------|------------|--------|------------------|-------------|
| Analyte | Method | Date | 1/25/17 | 1/25/17 |
| | | | mg/Kg | mg/Kg |
| Benzene | BTEX 8021B | | n/a | <0.050 |
| Toluene | BTEX 8021B | | n/a | <0.050 |
| Ethylbenzene | BTEX 8021B | | n/a | <0.050 |
| Total Xylenes | BTEX 8021B | | n/a | <0.150 |
| Total BTEX | BTEX 8021B | | n/a | <0.300 |
| Chloride | SM4500Cl-B | | 112 | 48 |
| GRO | TPH 8015M | | n/a | <10.0 |
| DRO | TPH 8015M | | n/a | 2660 |

| | | Sample | OVERSPRAY @ SURFACE |
|-----------------|------------|--------|------------------------|
| Analyte | Method | Date | 1/25/17 |
| | | | mg/Kg |
| Chloride | SM4500Cl-B | | 16 |

| | | Sample | NORTH @ SURFACE |
|-----------------|------------|--------|--------------------|
| Analyte | Method | Date | 1/25/17 |
| | | | mg/Kg |
| Chloride | SM4500Cl-B | | <16.0 |

| | | Sample | EAST @ SURFACE |
|-----------------|------------|--------|-------------------|
| Analyte | Method | Date | 1/25/17 |
| | | | mg/Kg |
| Chloride | SM4500Cl-B | | <16.0 |

| | | Sample | SOUTH @ SURFACE |
|-----------------|------------|--------|--------------------|
| Analyte | Method | Date | 1/25/17 |
| | | | mg/Kg |
| Chloride | SM4500Cl-B | | <16.0 |

| | | Sample | WEST @ SURFACE |
|-----------------|------------|--------|-------------------|
| Analyte | Method | Date | 1/25/17 |
| | | | mg/Kg |
| Chloride | SM4500Cl-B | | <16.0 |



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

February 01, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: MCKITTRICK HILLS CTB

Enclosed are the results of analyses for samples received by the laboratory on 01/26/17 17:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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, flowing 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: | 01/26/2017 | Sampling Date: | 01/25/2017 |
| Reported: | 02/01/2017 | Sampling Type: | Soil |
| Project Name: | MCKITTRICK HILLS CTB | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: SP 1 @ SURFACE (H700204-01)

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 128 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 1 @ 1' (H700204-02)

| BTX 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 | 02/01/2017 | ND | 1.98 | 98.8 | 2.00 | 0.451 | |
| Toluene* | <0.050 | 0.050 | 02/01/2017 | ND | 2.01 | 100 | 2.00 | 0.376 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/01/2017 | ND | 2.06 | 103 | 2.00 | 0.437 | |
| Total Xylenes* | <0.150 | 0.150 | 02/01/2017 | ND | 5.86 | 97.7 | 6.00 | 0.156 | |
| Total BTX | <0.300 | 0.300 | 02/01/2017 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.6-140

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 01/31/2017 | 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 | 01/30/2017 | ND | 188 | 93.8 | 200 | 3.89 | |
| DRO >C10-C28 | 2900 | 10.0 | 01/30/2017 | ND | 223 | 111 | 200 | 4.73 | |

Surrogate: 1-Chlorooctane 85.0 % 35-147

Surrogate: 1-Chlorooctadecane 135 % 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: | 01/26/2017 | Sampling Date: | 01/25/2017 |
| Reported: | 02/01/2017 | Sampling Type: | Soil |
| Project Name: | MCKITTRICK HILLS CTB | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: SP 2 @ SURFACE (H700204-03)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 112 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | | |

Sample ID: SP 2 @ 1' (H700204-04)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SP 3 @ SURFACE (H700204-05)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 112 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | |

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*=Accredited Analyte

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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: | 01/26/2017 | Sampling Date: | 01/25/2017 |
| Reported: | 02/01/2017 | Sampling Type: | Soil |
| Project Name: | MCKITTRICK HILLS CTB | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: SP 3 @ 1' (H700204-06)

| 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 | 02/01/2017 | ND | 1.98 | 98.8 | 2.00 | 0.451 | |
| Toluene* | <0.050 | 0.050 | 02/01/2017 | ND | 2.01 | 100 | 2.00 | 0.376 | |
| Ethylbenzene* | <0.050 | 0.050 | 02/01/2017 | ND | 2.06 | 103 | 2.00 | 0.437 | |
| Total Xylenes* | <0.150 | 0.150 | 02/01/2017 | ND | 5.86 | 97.7 | 6.00 | 0.156 | |
| Total BTEx | <0.300 | 0.300 | 02/01/2017 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.6-140

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 48.0 | 16.0 | 01/31/2017 | 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 | 01/30/2017 | ND | 188 | 93.8 | 200 | 3.89 | |
| DRO >C10-C28 | 2660 | 10.0 | 01/30/2017 | ND | 223 | 111 | 200 | 4.73 | |

Surrogate: 1-Chlorooctane 94.4 % 35-147

Surrogate: 1-Chlorooctadecane 137 % 28-171

Sample ID: OVERSPRAY @ SURFACE (H700204-07)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 16.0 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | | |

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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: | 01/26/2017 | Sampling Date: | 01/25/2017 |
| Reported: | 02/01/2017 | Sampling Type: | Soil |
| Project Name: | MCKITTRICK HILLS CTB | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Celey D. Keene |
| Project Location: | EDDY COUNTY, NM | | |

Sample ID: NORTH SAMPLE @ SURFACE (H700204-08)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | <16.0 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | | |

Sample ID: EAST SAMPLE @ SURFACE (H700204-09)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | <16.0 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | |

Sample ID: SOUTH SAMPLE @ SURFACE (H700204-10)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | <16.0 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | | |

Sample ID: WEST SAMPLE @ SURFACE (H700204-11)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | <16.0 | 16.0 | 01/31/2017 | ND | 432 | 108 | 400 | 0.00 | | |

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



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

182

Page 7 of 8

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ARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

187

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

Phone #: 575-397-6388

Project #:

Project Name: MCKITTRICK HILLS CTB

Project Location: EDDY COUNTY, NM

Sampler Name: Roger Hernandez

P.O. #:

Company: Oxy

Attn: Casey Summers

Address:

City:

State: Zip:

Phone #:

Fax #:

BILL TO

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H70024-11

WEST SAMPLE @ SURFACE

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

1/25/17 1:25 PM

✓

CI

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Relinquished By:

Relinquished By: [Signature]

Date: 1/25/17

Received By: [Signature]

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

REMARKS:

Add'l Phone #:

Add'l Fax #:

Relinquished By:

Relinquished By: [Signature]

Date: 1/25/17

Received By: [Signature]

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

REMARKS:

Add'l Phone #:

Add'l Fax #:

Delivered By: (Circle One)

Delivered By: [Signature]

Date: 1/25/17

Received By: [Signature]

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

REMARKS:

Add'l Phone #:

Add'l Fax #:

Sampler - UPS - Bus - Other:

Sampler: UPS

Date: 1/25/17

Received By: [Signature]

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

REMARKS:

Add'l Phone #:

Add'l Fax #:

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From: Bratcher, Mike, EMNRD
To: [Cliff Brunson](#)
Cc: [Weaver, Crystal, EMNRD](#); [Casey Summers](#); [Jennifer Hudgens](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#); [Tucker, Shelly](#)
Subject: RE: OXY - McKittrick Hills CTB (2RP-4087) - Remediation Plan
Date: Wednesday, February 15, 2017 1:09:39 PM

RE: OXY USA * McKittrick Hills CTB * **2RP-4087** * DOR: 1/7/17

Cliff,

Your proposal for remediation of the above referenced release is approved. Please advise once remedial activities have been scheduled. Federal sites require BLM approval.

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.

Mike Bratcher
NMOCD District 2
811 S. First St.
Artesia NM 88210
575-748-1283 Ext 108
mike.bratcher@state.nm.us

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Tuesday, February 7, 2017 3:14 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Cc: Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Casey Summers <Casey_Summers@oxy.com>; Jennifer Hudgens <jennifer_hudgens@oxy.com>; Ken Swinney <kswinney@bbcinternational.com>; Jennifer Gilkey <jgilkey@bbcinternational.com>; Kathy Purvis <kathy@bbcinternational.com>
Subject: OXY - McKittrick Hills CTB (2RP-4087) - Remediation Plan

Mike,

This e-mail is to confirm our discussion concerning the remediation plan for the OXY McKittrick Hills CTB release. I have attached the information packet that we used in our discussion with a cover page describing the remediation plan that we agreed upon.

If you would please reply via e-mail with your concurrence on this plan, 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



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From: Tucker, Shelly
To: [Cliff Brunson](#)
Cc: [Casey Summers](#); [Jennifer Hudgens](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)
Subject: Re: OXY - McKittrick Hills CTB - Remediation Plan
Date: Tuesday, February 14, 2017 2:46:34 PM

BLM concurs with the NMOCD approval.

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

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
O&G Spill/Release Coordinator

Bureau of Land Management
620 E. Greene St
Carlsbad, NM 88220

575.234.5905 - Direct
575.361.0084 - Cellular
575.234.6235 - Emergency Spill Number

stucker@blm.gov

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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On Tue, Feb 7, 2017 at 3:30 PM, Cliff Brunson <cbrunson@bbcinternational.com> wrote:

Shelly,

I have attached a remediation plan for the OXY McKittrick Hills CTB release. This plan has been approved by Mike Bratcher of the NMOCD. OXY is requesting the BLM's approval of this plan as well. Upon your review of the materials, it would be appreciated if

you would respond via email with the BLM's approval.

If you have any questions, please let me know.

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

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