

Closure Report

2RP-5468 & 2RP-5515

Site Description

Site Name:	Sundance 4-32 SWD Facility	Incident ID: NAB1915530465 (4/1/19)
Company:	Oxy, Permian	Incident ID: NAB1918654291 (5/2/19)
Legal Description:	U/L D, Section 4, T24S, R31E	
County:	Eddy County, NM	
GPS Coordinates:	N 32.25188 W 103.79005	

Release Data

Date of Release:	4/1/2019 & 5/2/2019	
Type of Release:	Produced water (both leaks)	
Source of Release:	Nipple broke off pressure guage/Nipple failure on discharge side of triplex pump	
Volume of Release:	40 bbls	70 bbls
Volume Recovered:	39 bbls	69 bbls

Remediation Specifications

Remediation Parameters:	Excavated SP1, SP6, SP7, & SP11 to a depth of 4 feet. Excavated SP2 to a depth of 3 feet. Excavated SP3 to a depth of 1 foot. Excavated SP4 & SP5 to a depth of 2 feet. Zero remediation was required for SP8, SP9, or SP10. Bottom and sidewall confirmation samples obtained. Backfilled entire site.	
Remediation Activities:	4/16/20 to 7/21/20	

Plan Sent to OCD:	8/13/2019	Email from Cliff Brunson to Victoria Venegas
OCD Approval of Plan:	8/15/2019	Email from Victoria Venegas to Wade Dittrich
Plan Sent to BLM:	11/18/2019	Email from Cliff Brunson to Jim Amos
BLM Approval of Plan:	11/19/2019	Email from Jim Amos to Cliff Brunson

Supporting Documentation

Initial C-141	signed and included	
C-141, page 6	signed and included	
Site Diagram	Google Earth map with excavation depths & confirmation sample points	
Pictures	Remediation photos	
Lab Summary/Analysis	Confirmation lab summary/analysis report for 6/18/20 to 6/20/20	
Depth to Groundwater	USGS Info	

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.

7/27/2020

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAB1915530465
District RP	2RP-5468
Facility ID	fAB1915530010
Application ID	pAB1915530169

Release Notification

Responsible Party

Responsible Party	OXY USA INC.	OGRID	16696
Contact Name	WADE DITTRICH	Contact Telephone	(575) 390-2828
Contact email	WADE_DITTRICH@OXY.COM	Incident # (assigned by OCD)	
Contact mailing address	PO BOX 4294; HOUSTON, TX 77210		

Location of Release Source

Latitude N 32.25174 Longitude W-103.79021
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	SUNDANCE 4-32 SWD FACILITY	Site Type	SWD
Date Release Discovered	4/1/19	API# (if applicable)	N/A

Unit Letter	Section	Township	Range	County
D	4	24S	31E	EDDY COUNTY, NM

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☒ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 40 BBLS	Volume Recovered (bbls) 39 BBLS
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

NIPPLE BROKE OFF OF PRESSURE GAUGE ON A TRIPLEX INJECTION PUMP

Form C-141

Page 2

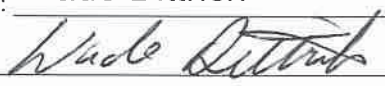
State of New Mexico
Oil Conservation Division

Incident ID	NAB1915530465
District RP	2RP-5468
Facility ID	fAB1915530010
Application ID	pAB1915530169

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? THE RELEASE IS GREATER THAN 25 BBLS
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, BY WADE DITTRICH TO MIKE BRATCHER OF NMOCD, JIM AMOS AND CRYSTAL WEAVER OF THE BLM VIA EMAIL ON 5/23/19 AT 10:30 AM	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.	
Printed Name: <u>Wade Dittrich</u> Signature: <u></u> email: <u>wade_dittrich@oxy.com</u>	Title: <u>Environmental Coordinator</u> Date: <u>5-30-19</u> Telephone: <u>(575) 390-2828</u>
<u>OCD Only</u> Received by: _____ Date: _____	

District I
1625 N. French Dr., Hobbs, NM 88240
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAB1918654291
District RP	2RP-5515
Facility ID	fAB1915530010
Application ID	pAB1918653243

Release Notification

Responsible Party

Responsible Party	OXY USA INC.	OGRID	16696
Contact Name	WADE DITTRICH	Contact Telephone	(575) 390-2828
Contact email	WADE_DITTRICH@OXY.COM	Incident # (assigned by OCD)	
Contact mailing address	PO BOX 4294; HOUSTON, TX 77210		

Location of Release Source

Latitude N 32.25188 Longitude W-103.79005
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	SUNDANCE 4-32 SWD FACILITY	Site Type	SWD
Date Release Discovered	5/2/19	API# (if applicable)	N/A

Unit Letter	Section	Township	Range	County
D	4	24S	31E	EDDY COUNTY, NM

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 70 BBLS	Volume Recovered (bbls) 69 BBLS
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

NIPPLE FAILURE ON DISCHARGE SIDE OF TRIPLEX PUMP

Form C-141

State of New Mexico
Oil Conservation Division

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Incident ID	NAB1918654291
District RP	2RP-5515
Facility ID	fAB1915530010
Application ID	pAB1918653243

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? THE RELEASE IS GREATER THAN 25 BBLS
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, BY WADE DITTRICH TO MIKE BRATCHER OF NMOCD, JIM AMOS AND CRYSTAL WEAVER OF THE BLM VIA EMAIL ON 5/07/19 AT 3:43 PM	

Initial Response*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
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Printed Name: Wade Dittrich	Title: Environmental Coordinator
Signature: 	Date: 6-25-19
email: wade_dittrich@oxy.com	Telephone: (575) 390-2828
OCD Only	
Received by: _____	Date: _____

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	NAB1915530465
District RP	2RP-5468
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Wade Dittrich Title: Environmental CoordinatorSignature:  Date: 8-6-2020email: wade_dittrich@oxy.com Telephone: (575) 390-2828**OCD Only**

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	NAB1918654291
District RP	2RP-5515
Facility ID	
Application ID	

Closure

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Printed Name: Wade Dittrich Title: Environmental Coordinator
Signature:  Date: 8-6-2020
email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Oxy, Sundance 4-32 SWD

Leak Dates 4-1-2019 & 5-2-2019
2RP-5468 & 2RP-5515
Incident ID's: NAB1915530465 (4-1-19)
NAB1918654291 (5-2-19)

Legend

1 ft excavation

2 ft excavation

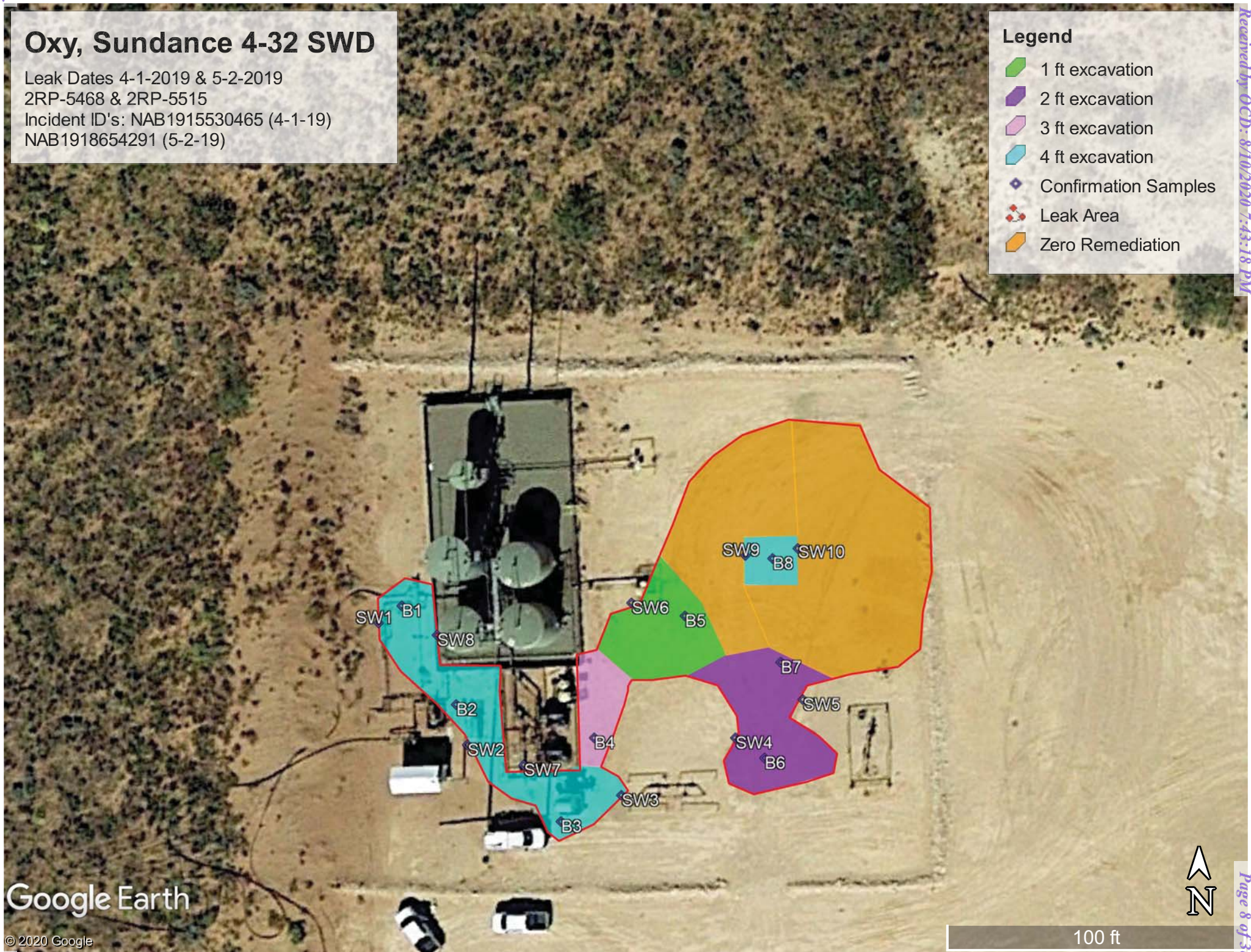
3 ft excavation

4 ft excavation

Confirmation Samples

Leak Area

Zero Remediation

















Laboratory Analytical Results Summary
Sundance 4-32 SWD Facility (4/1/19 and 5/2/19)
Confirmation Samples

		Sample ID	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8
Analyte	Method	Date	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		384	96.0	384	384	80.0	80.0	80.0	64.0
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

		Sample ID	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW9	SW10
Analyte	Method	Date	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20	6/8/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		368	256	64.0	32.0	160	16.0	144	80.0	64.0	65.0
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0



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

June 10, 2020

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: SUNDANCE 4-32 SWD FACILITY

Enclosed are the results of analyses for samples received by the laboratory on 06/09/20 12:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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 style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SP 1 (H001548-01)

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	06/09/2020	ND	1.96	97.9	2.00	9.72		
Toluene*	<0.050	0.050	06/09/2020	ND	2.10	105	2.00	10.4		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.95	97.3	2.00	9.56		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.88	98.0	6.00	7.60		
Total BTX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88		
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05		
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND						

Surrogate: 1-Chlorooctane 124 % 44.3-144

Surrogate: 1-Chlorooctadecane 134 % 42.2-156

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



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

Analytical Results For:

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

Received: 06/09/2020
 Reported: 06/10/2020
 Project Name: SUNDANCE 4-32 SWD FACILITY
 Project Number: (5-2-19)
 Project Location: OXY - EDDY CO NM

Sampling Date: 06/08/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 (H001548-02)

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	06/09/2020	ND	1.96	97.9	2.00	9.72	
Toluene*	<0.050	0.050	06/09/2020	ND	2.10	105	2.00	10.4	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.95	97.3	2.00	9.56	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.88	98.0	6.00	7.60	
Total BTEX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-144

Surrogate: 1-Chlorooctadecane 132 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SP 3 (H001548-03)

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	06/09/2020	ND	1.96	97.9	2.00	9.72	
Toluene*	<0.050	0.050	06/09/2020	ND	2.10	105	2.00	10.4	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.95	97.3	2.00	9.56	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.88	98.0	6.00	7.60	
Total BTX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-144

Surrogate: 1-Chlorooctadecane 127 % 42.2-156

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Analytical Results For:

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

Received: 06/09/2020
 Reported: 06/10/2020
 Project Name: SUNDANCE 4-32 SWD FACILITY
 Project Number: (5-2-19)
 Project Location: OXY - EDDY CO NM

Sampling Date: 06/08/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 4 (H001548-04)

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	06/09/2020	ND	1.96	97.9	2.00	9.72	
Toluene*	<0.050	0.050	06/09/2020	ND	2.10	105	2.00	10.4	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.95	97.3	2.00	9.56	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.88	98.0	6.00	7.60	
Total BTX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 117 % 44.3-144

Surrogate: 1-Chlorooctadecane 126 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SP 5 (H001548-05)

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	06/09/2020	ND	1.96	97.9	2.00	9.72	
Toluene*	<0.050	0.050	06/09/2020	ND	2.10	105	2.00	10.4	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.95	97.3	2.00	9.56	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.88	98.0	6.00	7.60	
Total BTX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 122 % 44.3-144

Surrogate: 1-Chlorooctadecane 134 % 42.2-156

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Analytical Results For:

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 Cliff Brunson
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 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SP 6 (H001548-06)

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	06/09/2020	ND	1.96	97.9	2.00	9.72	
Toluene*	<0.050	0.050	06/09/2020	ND	2.10	105	2.00	10.4	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.95	97.3	2.00	9.56	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.88	98.0	6.00	7.60	
Total BTX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-144

Surrogate: 1-Chlorooctadecane 130 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SP 7 (H001548-07)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 121 % 44.3-144

Surrogate: 1-Chlorooctadecane 138 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SP 8 (H001548-08)

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	06/09/2020	ND	1.85	92.3	2.00	5.68	
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19	
Total BTEX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 123 % 44.3-144

Surrogate: 1-Chlorooctadecane 138 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 1 (H001548-09)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEx	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 111 % 44.3-144

Surrogate: 1-Chlorooctadecane 124 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 2 (H001548-10)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	06/10/2020	ND	416	104	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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 115 % 44.3-144

Surrogate: 1-Chlorooctadecane 130 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 3 (H001548-11)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/10/2020	ND	400	100	400	3.92		

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 118 % 44.3-144

Surrogate: 1-Chlorooctadecane 132 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 4 (H001548-12)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/10/2020	ND	400	100	400	3.92		

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 121 % 44.3-144

Surrogate: 1-Chlorooctadecane 135 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 5 (H001548-13)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEx	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/10/2020	ND	400	100	400	3.92	

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 124 % 44.3-144

Surrogate: 1-Chlorooctadecane 140 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 6 (H001548-14)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEx	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-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	06/10/2020	ND	400	100	400	3.92		

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 121 % 44.3-144

Surrogate: 1-Chlorooctadecane 134 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 7 (H001548-15)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTEx	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/10/2020	ND	400	100	400	3.92	

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 122 % 44.3-144

Surrogate: 1-Chlorooctadecane 136 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 8 (H001548-16)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/10/2020	ND	400	100	400	3.92	

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 117 % 44.3-144

Surrogate: 1-Chlorooctadecane 128 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 9 (H001548-17)

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	06/09/2020	ND	1.85	92.3	2.00	5.68	
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15	
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14	
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19	
Total BTX	<0.300	0.300	06/09/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/10/2020	ND	400	100	400	3.92	

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 122 % 44.3-144

Surrogate: 1-Chlorooctadecane 139 % 42.2-156

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Analytical Results For:

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

Received:	06/09/2020	Sampling Date:	06/08/2020
Reported:	06/10/2020	Sampling Type:	Soil
Project Name:	SUNDANCE 4-32 SWD FACILITY	Sampling Condition:	Cool & Intact
Project Number:	(5-2-19)	Sample Received By:	Jodi Henson
Project Location:	OXY - EDDY CO NM		

Sample ID: SW 10 (H001548-18)

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	06/09/2020	ND	1.85	92.3	2.00	5.68		
Toluene*	<0.050	0.050	06/09/2020	ND	1.98	99.2	2.00	6.15		
Ethylbenzene*	<0.050	0.050	06/09/2020	ND	1.89	94.3	2.00	6.14		
Total Xylenes*	<0.150	0.150	06/09/2020	ND	5.83	97.2	6.00	5.19		
Total BTX	<0.300	0.300	06/09/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

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	06/10/2020	ND	400	100	400	3.92		

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	06/09/2020	ND	199	99.4	200	7.88	
DRO >C10-C28*	<10.0	10.0	06/09/2020	ND	210	105	200	9.05	
EXT DRO >C28-C36	<10.0	10.0	06/09/2020	ND					

Surrogate: 1-Chlorooctane 122 % 44.3-144

Surrogate: 1-Chlorooctadecane 137 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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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 Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

Page 21 of 22

Company Name: BBC International, Inc. Project Manager: Cliff Brunson Address: P.O. Box 805 City: Hobbs State: NM Zip: 88241 Phone #: 575-397-6388 Fax #: 575-397-0397 Project #: Project Owner: Oxy Project Name: Sundance 4-32 SWD (5-2-19) Project Location: Eddy County, NM Sampler Name: Simon Rendon				BILL TO				ANALYSIS REQUEST											
				P.O. #: Company: OXY Attn: WADE Address: City: State: Zip: Phone #: Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(GRAB OR C)OMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING									
						GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :		ACID/BASE: ICE / COOL OTHER :				DATE		TIME					
H001548				G 1															
1		SP1		↓								6/8/20		8:45 AM		✓ ✓ ✓			
2		SP2		↓								6/8/20		8:57 AM		✓ ✓ ✓			
3		SP3		↓								6/8/20		9:10 AM		✓ ✓ ✓			
4		SP4		↓								6/8/20		9:19 AM		✓ ✓ ✓			
5		SP5		↓								6/8/20		9:32 AM		✓ ✓ ✓			
6		SP6		↓								6/8/20		9:47 AM		✓ ✓ ✓			
7		SP7		↓								6/8/20		10:04 AM		✓ ✓ ✓			
8		SP8		↓								6/8/20		10:32 AM		✓ ✓ ✓			
9		SW1		↓								6/8/20		10:49 AM		✓ ✓ ✓			
10		SW2		↓								6/8/20		11:17 AM		✓ ✓ ✓			

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Relinquished By: 		Date: 6/9/20 Time: 12:18		Received By: 		Phone Result: ☐ Yes ☐ No Add'l Phone #: Fax Result: ☐ Yes ☐ No Add'l Fax #:	
Relinquished By: 		Date: Time:		Received By: 		REMARKS: Rush	

Delivered By: (Circle One) Sampler - UPS - Bus - Other: -0.30 #113		Sample Condition Cool ☒ Intact ☒ ☐ Yes ☐ Yes ☐ No ☐ No		CHECKED BY: 	
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-397-0397.

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CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

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Company Name: BBC International, Inc.				BILL TO												ANALYSIS REQUEST																					
Project Manager: Cliff Brunson				P.O. #:																																	
Address: P.O. Box 805				Company: OXY																																	
City: Hobbs State: NM Zip: 88241				Attn: WADE																																	
Phone #: 575-397-6388 Fax #: 575-397-0397				Address:																																	
Project #: Project Owner: Oxy				City:																																	
Project Name: Sundance 4-32 SWD (5-2-19)				State: Zip:																																	
Project Location: Eddy County, NM				Phone #:																																	
Sampler Name: Simon Rendon				Fax #:																																	
FOR LAB USE ONLY																																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		CL		BTEX		TPH		EXT	
HDD1548				G		1																				6/8/20		11:36 AM		✓		✓		✓			
11		SW3																								6/8/20		11:55 AM		✓		✓		✓			
12		SW4																								6/8/20		12:43 PM		✓		✓		✓			
13		SW5																								6/8/20		1:12 PM		✓		✓		✓			
14		SW6																								6/8/20		1:33 PM		✓		✓		✓			
15		SW7																								6/8/20		1:52 PM		✓		✓		✓			
16		SW8																								6/8/20		2:12 PM		✓		✓		✓			
17		SW9																								6/8/20		2:27 PM		✓		✓		✓			
18		SW10																																			

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Relinquished By:	Date: 6/9/20	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 12:10		Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other: -0.32 #113	Cool Intact ☒ Yes ☐ No ☐ Yes ☐ No			

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