

**7U707-190814-C-1410**PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805
E-MAIL: cbrunson@bbcinternational.com

DELINEATION/REMEDATION WORKPLAN

OXY – HARROUN 9 1 CTB (Leak Date: 1/14/19 & 1/21/19 & 1/23/19)

RP # 2RP-5283 & 2RP-5284 & 2RP-5285

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5283 & 2RP-5284 & 2RP-5285.

The following information includes:

1. Appropriate completed and signed C-141 pages.
2. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
3. GPS information for sample points and sample methodology.
4. Depth to groundwater information (i.e., pdf of OSE search results, USGS search results, and/or copy of Chevron groundwater trend map).
5. Watercourse/features map within 1000 feet.
6. BLM Cave Karst map.
7. FEMA National Flood map.
8. Laboratory analysis results summary table and original laboratory analysis reports.
9. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD rules, the following remediation is proposed:

OXY will excavate the spill area as depicted on the following site diagram. The leak area near SP1 – SP4 (BLUE shade on diagram) will be excavated to a depth of 2 feet. The leak area near SP5 – SP7, and SP10 (PINK shade on diagram) will be excavated to a depth of 4 feet. Oxy is requesting a variance to place an impermeable liner in the bottom of the 4-foot excavation area. The leak area near SP8 – SP9 (GREEN shade on diagram) will be excavated to a depth of 1 foot. The leak area near SP11 – SP13 will require zero remediation.

Bottom and sidewall confirmation samples will be collected every 100 feet except in the lined area.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

Incident ID	
District RP	2RP-5283
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	52' (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5283
Facility ID	
Application ID	

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: Wade DittrichTitle: Environmental CoordinatorSignature: Date: 7-31-19email: wade_dittrich@oxy.comTelephone: (575) 390-2828**OCD Only**

Received by: _____

Date: _____

Incident ID	
District RP	2RP-5283
Facility ID	
Application ID	

Remediation Plan


Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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Signature:  Date: 7-31-18
email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

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Facility ID	
Application ID	

Site Assessment/Characterization

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Remediation Plan

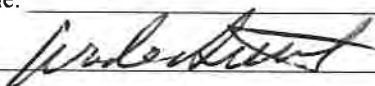
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☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Incident ID	
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District RP	2RP-5285
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Remediation Plan

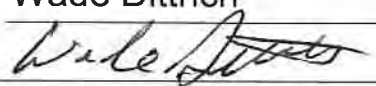
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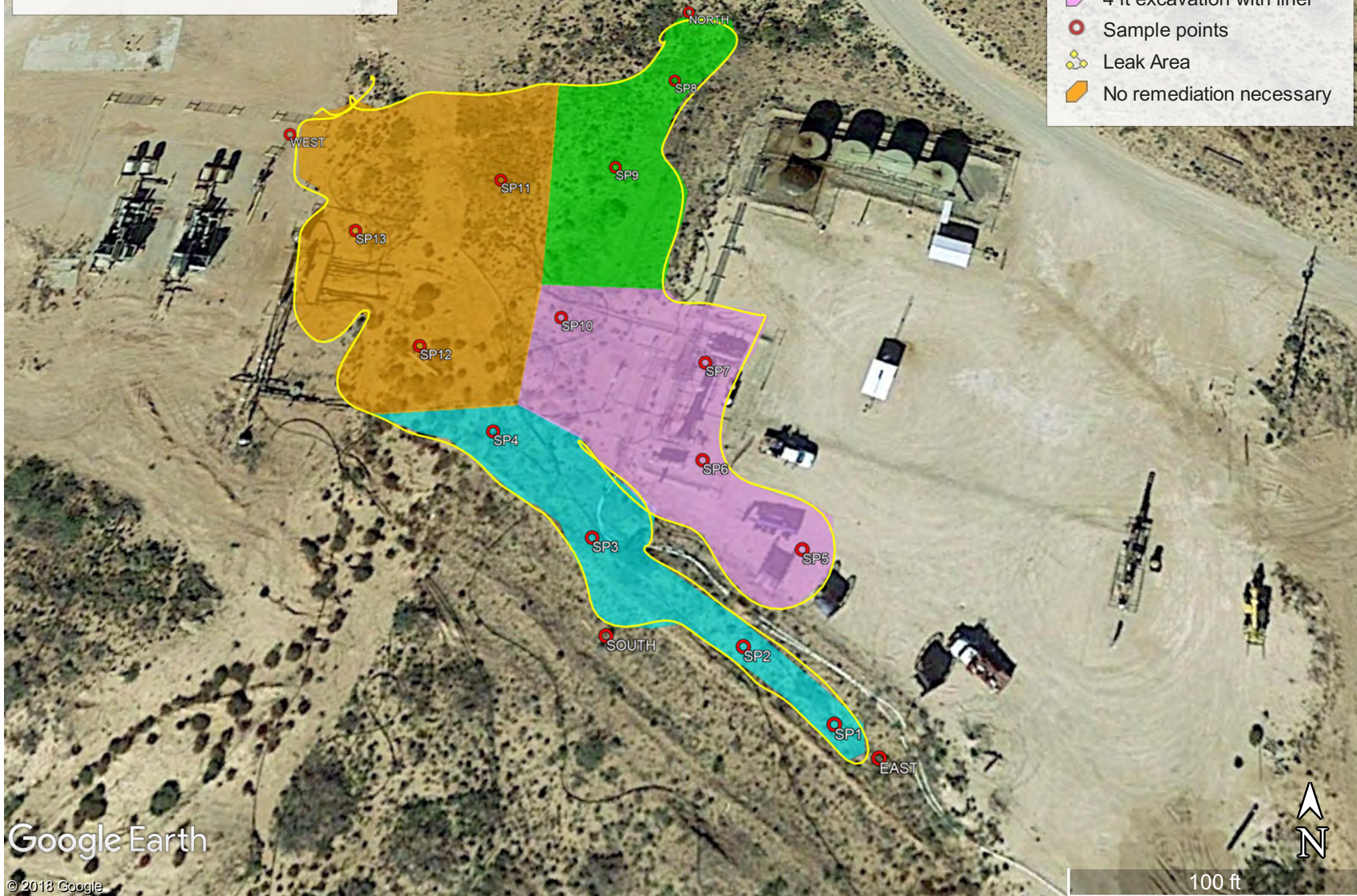
Signature: _____ Date: _____

Oxy, Harroun 9 1 CTB

Leak dates: 1/14/19, 1/21/19, and 1/23/19
Eddy County, NM
2RP-5283, 2RP-5284, and 2RP-5285

Legend

- 1 ft excavation
- 2 ft excavation
- 4 ft excavation with liner
- Sample points
- Leak Area
- No remediation necessary



Google Earth

© 2018 Google

Oxy, Harroun 9 1 CTB

Sample points

SP1, N 32.22613 W-103.98239

SP2, N 32.22621 W-103.98250

SP3, N 32.22633 W-103.98268

SP4, N 32.22645 W-103.98281

SP5, N 32.22631 W-103.98242

SP6, N 32.22641 W-103.98254

SP7, N 32.22653 W-103.98254

SP8, N 32.22693 W-103.98258

SP9, N 32.22680 W-103.98266

SP10, N 32.22659 W-103.98273

SP11, N 32.22678 W-103.98283

SP12, N 32.22656 W-103.98292

SP13, N 32.22671 W-103.98302

NORTH, N 32.22704 W-103.98256

SOUTH, N 32.22622 W-103.98266

EAST, N 32.22609 W-103.98234

WEST, N 32.22685 W-103.98313

Oxy, Harroun 9 1 CTB
U/L P, Section 9, T24S, R29E
Groundwater: 75'-100'






USGS Home
Contact USGS
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National Water Information System: Web Interface

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Data Category: Geographic Area:

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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321355104012001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321355104012001 24S.29E.07.14444

Eddy County, New Mexico

Latitude 32°13'55", Longitude 104°01'20" NAD27

Land-surface elevation 2,983 feet above NAVD88

The depth of the well is 160 feet below land surface.

This well is completed in the Castile Formation (312CSTL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1983-02-01		D	47.14				2		U	
1987-10-16		D	51.84				2		U	
1988-02-11		D	52.19				2		U	
1992-10-20		D	51.78				2		S	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)



Title: Groundwater for New Mexico: Water Levels

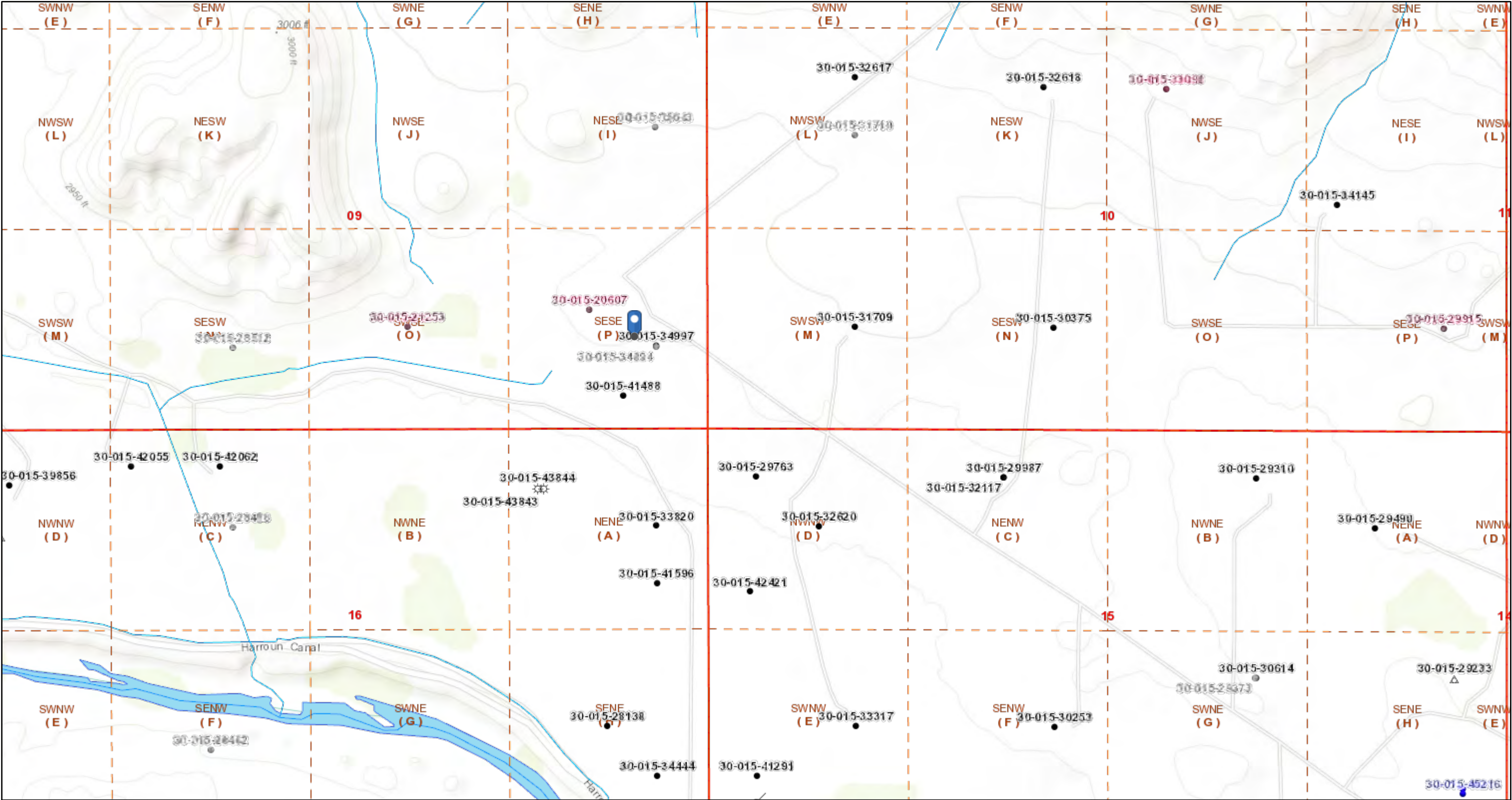
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>

Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2019-02-25 18:04:30 EST

0.66 0.63 nadww01

Harroun 9 1 CTB



2/25/2019 3:55:58 PM

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned

Gas Active

- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active

Injection, Cancelled

- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled

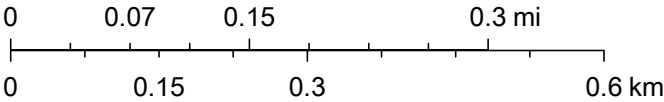
Oil, New

- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New

Salt Water Injection, Plugged

- Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged

1:9,028





Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, OCD, BLM

Oxy, Harrou 9 1 CTB

Leak dates: 1/14/19, 1/21/19, 1/23/19
Eddy County, NM
AP# 30-015-34894

BLM CAVE KARST MAP

Legend

-  Leak Area
-  Medium potential



National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **2/25/2019 at 6:12:33 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



USGS The National Map: Orthoimagery. Data refreshed October, 2017.

Feet 1:6,000

32°13'20.40"N

0 250 500 1,000 1,500 2,000

Laboratory Analytical Results Summary
Harroun 9-1 CTB (1/14/19, 1/21/19, 1/23/19)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 5'	SP1 @ 6'	SP1 @ 7'
Analyte	Method	Date	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		5.24	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		7.97	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		42.8	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		56	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		48	32	48	16	16	16	160	128
GRO	TPH 8015M		1450	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		21000	172	109	64.1	35	276	<10.0	<10.0
EXT DRO	TPH 8015M		3850	76	14.5	<10.0	<10.0	42.2	<10.0	<10.0

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'	SP2 @ 6'	SP2 @ 7'
Analyte	Method	Date	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		0.355	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		3.95	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		2.79	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		19.3	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		26.4	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		112	16	32	16	32	16	48	64
GRO	TPH 8015M		521	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		16600	344	172	84.3	67.5	97.7	<10.0	<10.0
EXT DRO	TPH 8015M		4040	106	33.1	<10.0	<10.0	<10.0	<10.0	<10.0

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'	SP3 @ 5'	SP3 @ 6'	SP3 @ 7'
Analyte	Method	Date	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19	2/27/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		3.98	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		4.56	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		29.7	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		38.3	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		64	64	32	16	32	32	64	16
GRO	TPH 8015M		887	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		16100	230	37.2	27.2	<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		2640	40.4	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'
Analyte	Method	Date	2/27/19	2/27/19	3/1/19	3/1/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		2.85	<0.200	<0.050	<0.050
Toluene	BTEX 8021B		24.6	2.78	<0.050	<0.050
Ethylbenzene	BTEX 8021B		10.7	4.87	<0.050	<0.050
Total Xylenes	BTEX 8021B		67	27.2	<0.150	<0.150
Total BTEX	BTEX 8021B		105	34.8	<0.300	<0.300
Chloride	SM4500Cl-B		416	80	32	48
GRO	TPH 8015M		1970	510	<10.0	<10.0
DRO	TPH 8015M		27500	2740	49.3	<10.0
EXT DRO	TPH 8015M		5320	507	17.3	<10.0

Laboratory Analytical Results Summary
Harroun 9-1 CTB (1/14/19, 1/21/19, 1/23/19)

		Sample ID	SP5 @ SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'
Analyte	Method	Date	3/1/19	3/1/19	3/1/19	3/1/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		68000	1410	352	880
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		91.7	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		23.7	<10.0	<10.0	<10.0

		Sample ID	SP6 @ SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'	SP6 @ 5'	SP6 @ 6'	SP6 @ 7'	SP6 @ 8'	SP6 @ 9'	SP6 @ 10'	SP6 @ 11'
Analyte	Method	Date	3/1/19	3/1/19	3/1/19	3/1/19	3/1/19	3/1/19	3/1/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		1.13	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		0.976	<0.050	<0.050	<0.050	<0.050	0.058	<0.050	<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		7.12	<0.150	<0.150	<0.150	<0.150	0.415	<0.150	<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		9.22	<0.300	<0.300	<0.300	<0.300	0.473	<0.300	<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		18400	9920	8080	6800	6640	10400	9200	6560	6800	6320	48	48
GRO	TPH 8015M		163	<10.0	<10.0	<10.0	<10.0	10	<10.0	<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		24400	396	61.9	24.9	26.7	1720	18	<10.0	<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		4050	60.8	<10.0	<10.0	<10.0	415	<10.0	<10.0	<10.0	n/a	n/a	n/a

		Sample ID	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'	SP7 @ 6'	SP7 @ 7'	SP7 @ 8'	SP7 @ 9'	SP7 @ 10'
Analyte	Method	Date	3/1/19	3/1/19	3/1/19	3/1/19	3/1/19	3/1/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	<0.050
Toluene	BTEX 8021B		0.58	<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	<0.050
Ethylbenzene	BTEX 8021B		0.9	<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	<0.050
Total Xylenes	BTEX 8021B		7.22	0.205	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a	n/a	<0.150
Total BTEX	BTEX 8021B		8.7	<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a	n/a	<0.300
Chloride	SM4500Cl-B		13600	14800	11300	8800	7440	8800	5840	4000	2200	48	80
GRO	TPH 8015M		118	<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	<10.0
DRO	TPH 8015M		9370	612	17.7	<10.0	<10.0	15.9	n/a	n/a	n/a	n/a	<10.0
EXT DRO	TPH 8015M		1330	226	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	<10.0

		Sample ID	SP8 @ SURFACE	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'
Analyte	Method	Date	3/4/19	3/4/19	3/4/19	3/4/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		1220	48	32	32
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1040	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		375	<10.0	<10.0	<10.0

Laboratory Analytical Results Summary
Harroun 9-1 CTB (1/14/19, 1/21/19, 1/23/19)

		Sample ID	SP9 @ SURFACE	SP9 @ 1'	SP9 @ 2'	SP9 @ 3'
Analyte	Method	Date	3/4/19	3/4/19	3/4/19	3/4/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		0.277	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		880	384	176	80
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		175	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		84.3	<10.0	<10.0	<10.0

		Sample ID	SP10 @ SURFACE	SP10 @ 1'	SP10 @ 2'	SP10 @ 3'	SP10 @ 4'	SP10 @ 5'	SP10 @ 6'	SP10 @ 7'	SP10 @ 8'	SP10 @ 9'
Analyte	Method	Date	3/4/19	3/4/19	3/4/19	3/4/19	3/4/19	3/5/19	3/4/19	3/5/19	3/5/19	3/5/19
			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	n/a	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		256	8960	6800	13600	11800	7600	8720	3280	64	80
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		22.3	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a	n/a	n/a

		Sample ID	SP11 @ SURFACE	SP11 @ 1'	SP11 @ 2'	SP11 @ 3'
Analyte	Method	Date	3/5/19	3/5/19	3/5/19	3/5/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		48	48	96	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

		Sample ID	SP12 @ SURFACE	SP12 @ 1'	SP12 @ 2'	SP12 @ 3'
Analyte	Method	Date	3/5/19	3/5/19	3/5/19	3/5/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		64	48	32	32
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

Laboratory Analytical Results Summary
Harroun 9-1 CTB (1/14/19, 1/21/19, 1/23/19)

		Sample ID	SP13 @ SURFACE	SP13 @ 1'	SP13 @ 2'	SP13 @ 3'
Analyte	Method	Date	3/5/19	3/5/19	3/5/19	3/5/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.169	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		0.063	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		0.35	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		0.582	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		64	32	80	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	3/4/19	3/4/19	3/4/19	3/4/19
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		32	32	48	32
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0



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

March 15, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: HARROUN 9-1 CTB

Enclosed are the results of analyses for samples received by the laboratory on 03/08/19 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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.

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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:	03/08/2019	Sampling Date:	02/27/2019
Reported:	03/15/2019	Sampling Type:	Soil
Project Name:	HARROUN 9-1 CTB	Sampling Condition:	Cool & Intact
Project Number:	1/14/19, 1/21/19, 1/23/19	Sample Received By:	Jodi Henson
Project Location:	OXY		

Sample ID: SP 1 @ SURFACE (H900955-01)

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	5.24	0.500	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	7.97	0.500	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	42.8	1.50	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTX	56.0	3.00	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 141 % 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	48.0	16.0	03/13/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1450	50.0	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	21000	50.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	3850	50.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 236 % 41-142

Surrogate: 1-Chlorooctadecane 852 % 37.6-147

Cardinal Laboratories

*=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:	03/08/2019	Sampling Date:	02/27/2019
Reported:	03/15/2019	Sampling Type:	Soil
Project Name:	HARROUN 9-1 CTB	Sampling Condition:	Cool & Intact
Project Number:	1/14/19, 1/21/19, 1/23/19	Sample Received By:	Jodi Henson
Project Location:	OXY		

Sample ID: SP 1 @ 1' (H900955-02)

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	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	<0.050	0.050	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	172	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	76.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 115 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 2' (H900955-03)

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	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	<0.050	0.050	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 89.2 % 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	48.0	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	109	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	14.5	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 121 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 3' (H900955-04)

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	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	<0.050	0.050	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.1 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	64.1	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 4' (H900955-05)

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	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	<0.050	0.050	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTEX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.0 % 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	16.0	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	35.0	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 112 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 5' (H900955-06)

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	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	<0.050	0.050	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	16.0	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	276	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	42.2	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 121 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 6' (H900955-07)

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	03/11/2019	ND	2.19	109	2.00	6.18	
Toluene*	<0.050	0.050	03/11/2019	ND	2.26	113	2.00	4.40	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.20	110	2.00	6.55	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.16	103	6.00	5.41	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.6 % 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	160	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 7' (H900955-08)

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	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	<0.050	0.050	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 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	128	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ SURFACE (H900955-09)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.355	0.200	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	3.95	0.200	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	2.79	0.200	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	19.3	0.600	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTX	26.4	1.20	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	112	16.0	03/13/2019	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	521	50.0	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	16600	50.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	4040	50.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 136 % 41-142

Surrogate: 1-Chlorooctadecane 789 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 1' (H900955-10)

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	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	<0.050	0.050	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	344	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	106	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 109 % 41-142

Surrogate: 1-Chlorooctadecane 126 % 37.6-147

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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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 2' (H900955-11)

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	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	<0.050	0.050	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTEX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	172	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	33.1	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 117 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 3' (H900955-12)

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	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	<0.050	0.050	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 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	16.0	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	84.3	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 119 % 37.6-147

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 Received: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19, 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 02/27/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 @ 4' (H900955-13)

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	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	<0.050	0.050	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTEX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	192	95.9	200	0.739	
DRO >C10-C28*	67.5	10.0	03/11/2019	ND	198	99.2	200	4.49	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 116 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 5' (H900955-14)

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	03/11/2019	ND	2.16	108	2.00	4.13	
Toluene*	<0.050	0.050	03/11/2019	ND	2.00	100	2.00	3.04	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.09	104	2.00	2.31	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.55	109	6.00	2.94	
Total BTEX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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	16.0	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	97.7	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 117 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 6' (H900955-15)

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	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 96.7 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 7' (H900955-16)

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	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 94.1 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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P.O. Box 805
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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ SURFACE (H900955-17)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	3.98	0.500	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	4.56	0.500	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	29.7	1.50	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTX	38.3	3.00	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	03/13/2019	ND	416	104	400	7.41		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	887	100	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	16100	100	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	2640	100	03/12/2019	ND					

Surrogate: 1-Chlorooctane 183 % 41-142

Surrogate: 1-Chlorooctadecane 651 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 1' (H900955-18)

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	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	230	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	40.4	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 103 % 41-142

Surrogate: 1-Chlorooctadecane 115 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 2' (H900955-19)

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	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	37.2	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 98.8 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 3' (H900955-20)

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	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	27.2	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 4' (H900955-21)

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	03/11/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/11/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/11/2019	ND	6.62	110	6.00	1.22	
Total BTX	<0.300	0.300	03/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 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	32.0	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 98.6 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 5' (H900955-22)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 6' (H900955-23)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 @ 7' (H900955-24)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 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	16.0	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 113 % 37.6-147

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

 Received: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19 , 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 02/27/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 4 @ SURFACE (H900955-25)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.85	0.500	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	24.6	0.500	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	10.7	0.500	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	67.0	1.50	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEx	105	3.00	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 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	416	16.0	03/13/2019	ND	416	104	400	7.41		
TPH 8015M										
		mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1970	50.0	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	27500	50.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	5320	50.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 249 % 41-142

Surrogate: 1-Chlorooctadecane 998 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 02/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 @ 1' (H900955-26)

BTX 8021B		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	2.78	0.200	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	4.87	0.200	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	27.2	0.600	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTX	34.8	1.20	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 132 % 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	03/13/2019	ND	416	104	400	7.41	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	510	10.0	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	2740	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	507	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 187 % 41-142

Surrogate: 1-Chlorooctadecane 218 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 @ 2' (H900955-27)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	49.3	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	17.3	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 95.6 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 @ 3' (H900955-28)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 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	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 98.4 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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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: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19, 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 03/01/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 5 @ SURFACE (H900955-29)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 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	68000	16.0	03/13/2019	ND	416	104	400	7.41		

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	91.7	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	23.7	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 98.5 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 5 @ 1' (H900955-30)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	1410	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 5 @ 2' (H900955-31)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	352	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 93.1 % 41-142

Surrogate: 1-Chlorooctadecane 95.1 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 5 @ 3' (H900955-32)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	880	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19 , 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ SURFACE (H900955-33)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	1.13	0.500	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	0.976	0.500	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	7.12	1.50	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTX	9.22	3.00	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	18400	16.0	03/13/2019	ND	416	104	400	7.41	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	163	50.0	03/12/2019	ND	204	102	200	9.36	
DRO >C10-C28*	24400	50.0	03/12/2019	ND	206	103	200	7.22	
EXT DRO >C28-C36	4050	50.0	03/12/2019	ND					

S-06

Surrogate: 1-Chlorooctane 459 % 41-142

Surrogate: 1-Chlorooctadecane 867 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 1' (H900955-34)

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	03/12/2019	ND	2.25	112	2.00	2.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.07	104	2.00	0.402	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.62	110	6.00	1.22	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	9920	16.0	03/13/2019	ND	416	104	400	7.41		

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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	396	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	60.8	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 86.7 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 2' (H900955-35)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	8080	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	61.9	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 85.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.9 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 3' (H900955-36)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 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	6800	16.0	03/13/2019	ND	416	104	400	7.41	

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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	24.9	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 88.1 % 41-142

Surrogate: 1-Chlorooctadecane 98.4 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 4' (H900955-37)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 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	6640	16.0	03/13/2019	ND	400	100	400	0.00	QM-07	

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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	26.7	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 72.6 % 41-142

Surrogate: 1-Chlorooctadecane 81.2 % 37.6-147

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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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 5' (H900955-38)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	0.058	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	0.415	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTX	0.473	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	10400	16.0	03/13/2019	ND	400	100	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						S-04

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	10.0	10.0	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	1720	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	415	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 92.9 % 41-142

Surrogate: 1-Chlorooctadecane 150 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 6' (H900955-39)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	9200	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	18.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 79.5 % 41-142

Surrogate: 1-Chlorooctadecane 88.0 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 7' (H900955-40)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.8 % 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	6560	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 83.8 % 41-142

Surrogate: 1-Chlorooctadecane 92.1 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 6 @ 8' (H900955-41)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 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	6800	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 87.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.5 % 37.6-147

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 Received: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19 , 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 03/05/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 6 @ 9' (H900955-42)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6320	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 6 @ 10' (H900955-43)

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	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 6 @ 11' (H900955-44)

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	03/13/2019	ND	400	100	400	0.00	

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 7 @ SURFACE (H900955-45)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	0.580	0.500	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	0.900	0.500	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	7.22	1.50	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTX	8.70	3.00	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	13600	16.0	03/13/2019	ND	400	100	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						S-04

TPH 8015M	mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	118	10.0	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	9370	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	1330	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 543 % 41-142

Surrogate: 1-Chlorooctadecane 280 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 7 @ 1' (H900955-46)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	0.205	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.8 % 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	14800	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	612	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	226	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 78.1 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 7 @ 2' (H900955-47)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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	11300	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	17.7	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 82.0 % 41-142

Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 7 @ 3' (H900955-48)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 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	8800	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 84.4 % 41-142

Surrogate: 1-Chlorooctadecane 93.8 % 37.6-147

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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: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19, 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 03/01/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 7 @ 4' (H900955-49)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	7440	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 84.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/01/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 7 @ 5' (H900955-50)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 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	8800	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	15.9	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 76.2 % 41-142

Surrogate: 1-Chlorooctadecane 85.4 % 37.6-147

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 Received: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19 , 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 03/05/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 7 @ 6' (H900955-51)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 7 @ 7' (H900955-52)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 7 @ 8' (H900955-53)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 7 @ 9' (H900955-54)

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	03/13/2019	ND	400	100	400	0.00	

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 7 @ 10' (H900955-55)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 82.1 % 41-142

Surrogate: 1-Chlorooctadecane 90.6 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 8 @ SURFACE (H900955-56)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.2 % 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	1220	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	1040	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	375	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 76.9 % 41-142

Surrogate: 1-Chlorooctadecane 129 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 8 @ 1' (H900955-57)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 81.8 % 41-142

Surrogate: 1-Chlorooctadecane 90.3 % 37.6-147

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Hobbs NM, 88241
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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 8 @ 2' (H900955-58)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 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	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 81.2 % 41-142

Surrogate: 1-Chlorooctadecane 90.1 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 8 @ 3' (H900955-59)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	32.0	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	<10.0	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	<10.0	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 78.9 % 41-142

Surrogate: 1-Chlorooctadecane 87.5 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 9 @ SURFACE (H900955-60)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	0.277	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	880	16.0	03/13/2019	ND	400	100	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	03/11/2019	ND	208	104	200	6.80	
DRO >C10-C28*	175	10.0	03/11/2019	ND	223	112	200	19.2	
EXT DRO >C28-C36	84.3	10.0	03/11/2019	ND					

Surrogate: 1-Chlorooctane 67.4 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 9 @ 1' (H900955-61)

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	03/12/2019	ND	2.03	101	2.00	0.598	
Toluene*	<0.050	0.050	03/12/2019	ND	1.89	94.7	2.00	0.154	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.96	97.9	2.00	1.42	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.06	101	6.00	0.758	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 82.2 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 9 @ 2' (H900955-62)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 80.0 % 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	176	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 81.8 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 9 @ 3' (H900955-63)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.5 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 86.3 % 41-142

Surrogate: 1-Chlorooctadecane 95.6 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 10 @ SURFACE (H900955-64)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 87.5 % 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	256	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	22.3	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 83.4 % 41-142

Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 10 @ 1' (H900955-65)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.3 % 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	8960	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 78.7 % 41-142

Surrogate: 1-Chlorooctadecane 87.0 % 37.6-147

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Analytical Results For:

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 Received: 03/08/2019
 Reported: 03/15/2019
 Project Name: HARROUN 9-1 CTB
 Project Number: 1/14/19, 1/21/19, 1/23/19
 Project Location: OXY

 Sampling Date: 03/04/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 10 @ 2' (H900955-66)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTEx	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 79.4 % 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	6800	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 85.6 % 41-142

Surrogate: 1-Chlorooctadecane 95.8 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 10 @ 3' (H900955-67)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 79.6 % 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	13600	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 96.3 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19 , 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 10 @ 4' (H900955-68)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 10 @ 5' (H900955-69)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7600	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 10 @ 6' (H900955-70)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8720	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 10 @ 7' (H900955-71)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3280	16.0	03/13/2019	ND	400	100	400	0.00	

Sample ID: SP 10 @ 8' (H900955-72)

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	03/13/2019	ND	400	100	400	0.00	

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 10 @ 9' (H900955-73)

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	03/13/2019	ND	400	100	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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 11 @ SURFACE (H900955-74)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.2 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 85.5 % 41-142

Surrogate: 1-Chlorooctadecane 95.0 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 11 @ 1' (H900955-75)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.6 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 86.2 % 41-142

Surrogate: 1-Chlorooctadecane 95.6 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 11 @ 2' (H900955-76)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTEX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 80.9 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 83.2 % 41-142

Surrogate: 1-Chlorooctadecane 92.5 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 11 @ 3' (H900955-77)

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	03/12/2019	ND	1.92	96.0	2.00	4.17		
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74		
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53		
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858		
Total BTX	<0.300	0.300	03/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 84.9 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 77.9 % 41-142

Surrogate: 1-Chlorooctadecane 86.3 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 12 @ SURFACE (H900955-78)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.3 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 83.0 % 41-142

Surrogate: 1-Chlorooctadecane 92.6 % 37.6-147

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P.O. Box 805
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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 12 @ 1' (H900955-79)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 78.2 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 85.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.4 % 37.6-147

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P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 12 @ 2' (H900955-80)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.7 % 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	32.0	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 76.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.7 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 12 @ 3' (H900955-81)

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	03/12/2019	ND	1.92	96.0	2.00	4.17		
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74		
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53		
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858		
Total BTEx	<0.300	0.300	03/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 87.3 % 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	32.0	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 13 @ SURFACE (H900955-82)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	0.169	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	0.063	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	0.350	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	0.582	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.5 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 78.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.6 % 37.6-147

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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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 13 @ 1' (H900955-83)

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	03/12/2019	ND	1.92	96.0	2.00	4.17		
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74		
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53		
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858		
Total BTX	<0.300	0.300	03/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.1 % 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	32.0	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 79.7 % 41-142

Surrogate: 1-Chlorooctadecane 89.1 % 37.6-147

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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 13 @ 2' (H900955-84)

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	03/12/2019	ND	1.92	96.0	2.00	4.17		
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74		
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53		
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858		
Total BTX	<0.300	0.300	03/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.3 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 84.3 % 41-142

Surrogate: 1-Chlorooctadecane 93.7 % 37.6-147

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P.O. Box 805
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Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/05/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 13 @ 3' (H900955-85)

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	03/12/2019	ND	1.92	96.0	2.00	4.17		
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74		
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53		
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858		
Total BTX	<0.300	0.300	03/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 81.8 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 81.9 % 41-142

Surrogate: 1-Chlorooctadecane 92.3 % 37.6-147

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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: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NORTH @ SURFACE (H900955-86)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 90.6 % 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	03/13/2019	ND	400	100	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	03/12/2019	ND	189	94.5	200	3.62	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	179	89.5	200	3.82	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 75.6 % 41-142

Surrogate: 1-Chlorooctadecane 89.8 % 37.6-147

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

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: EAST @ SURFACE (H900955-87)

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	03/12/2019	ND	1.92	96.0	2.00	4.17	
Toluene*	<0.050	0.050	03/12/2019	ND	2.00	99.8	2.00	2.74	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.83	91.7	2.00	2.53	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	5.17	86.1	6.00	0.858	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 78.8 % 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	32.0	16.0	03/13/2019	ND	400	100	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	03/12/2019	ND	209	105	200	0.443	
DRO >C10-C28*	<10.0	10.0	03/12/2019	ND	218	109	200	1.16	
EXT DRO >C28-C36	<10.0	10.0	03/12/2019	ND					

Surrogate: 1-Chlorooctane 88.2 % 41-142

Surrogate: 1-Chlorooctadecane 91.0 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: WEST @ SURFACE (H900955-88)

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	03/12/2019	ND	2.01	100	2.00	0.103	
Toluene*	<0.050	0.050	03/12/2019	ND	1.86	93.2	2.00	0.296	
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.98	98.9	2.00	1.67	
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.01	100	6.00	1.52	
Total BTX	<0.300	0.300	03/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	48.0	16.0	03/13/2019	ND	400	100	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	03/15/2019	ND	209	105	200	0.443	
DRO >C10-C28*	<10.0	10.0	03/15/2019	ND	218	109	200	1.16	
EXT DRO >C28-C36	<10.0	10.0	03/15/2019	ND					

Surrogate: 1-Chlorooctane 91.3 % 41-142

Surrogate: 1-Chlorooctadecane 89.5 % 37.6-147

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Fax To: (575) 397-0397

Received: 03/08/2019
Reported: 03/15/2019
Project Name: HARROUN 9-1 CTB
Project Number: 1/14/19, 1/21/19, 1/23/19
Project Location: OXY

Sampling Date: 03/04/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SOUTH @ SURFACE (H900955-89)

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	03/12/2019	ND	2.01	100	2.00	0.103		
Toluene*	<0.050	0.050	03/12/2019	ND	1.86	93.2	2.00	0.296		
Ethylbenzene*	<0.050	0.050	03/12/2019	ND	1.98	98.9	2.00	1.67		
Total Xylenes*	<0.150	0.150	03/12/2019	ND	6.01	100	6.00	1.52		
Total BTEx	<0.300	0.300	03/12/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	32.0	16.0	03/13/2019	ND	400	100	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	03/15/2019	ND	209	105	200	0.443	
DRO >C10-C28*	<10.0	10.0	03/15/2019	ND	218	109	200	1.16	
EXT DRO >C28-C36	<10.0	10.0	03/15/2019	ND					

Surrogate: 1-Chlorooctane 90.5 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

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: Harroun 9-1 CTB, 1/14/19, 1/21/19, 1/23/19 Project Location: Sample Name: Jeff Ornelas FOR LAB USE ONLY				BILL TO P.O. #: Company: Oxy Attn: L.D. Estrick Address: City: State: Zip: Phone #: Fax #:				ANALYSIS REQUEST			
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV SAMPLING		DATE TIME		C1 BTEX TPH Ext			
11	SP2 @ 2'					2/27/19	11:55 AM	✓	✓		
12	SP2 @ 3'					2/27/19	12:12 PM	✓	✓		
13	SP2 @ 4'					2/27/19	12:51 PM	✓	✓		
14	SP2 @ 5'					2/27/19	1:01 PM	✓	✓		
15	SP2 @ 6'					2/27/19	1:11 PM	✓	✓		
16	SP2 @ 7'					2/27/19	1:25 PM	✓	✓		
17	SP3 @ SURFACE					2/27/19	1:29 PM	✓	✓		
18	SP3 @ 1'					2/27/19	1:35 PM	✓	✓		
19	SP3 @ 2'					2/27/19	1:45 PM	✓	✓		
20	SP3 @ 3'					2/27/19	2:01 PM	✓	✓		

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Relinquished By: <i>Jeff Ornelas</i> Date: 3-8-19 Time: 4:30pm Relinquished By: <i>Jeff Ornelas</i> Date: 3-8-19 Time: 4:30pm Received By: <i>Good Member</i> Date: 3-8-19 Time: 4:30pm Sample Condition: Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No CHECKED BY: <i>Jeff</i> Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4:30 / #97	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:
--	--

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc. Project Manager: Cliff Brunson Address: P.O. Box 805 City: Hobbs Phone #: 575-397-6388 Project #: Project Name: Harroun 9-1 CTB, 1/14/19, 1/21/19, 1/23/19 Project Location:				P.O. #: Company: <i>OCY</i> Attn: <i>W.D. Strick</i> Address: City: State: Zip: Phone #: Fax #:					
Sample Name: Jeff Ornelas <small>FOR LAB USE ONLY</small>				Matrix: <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input checked="" type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER: Preserv: <input type="checkbox"/> ACID/BASE: <input checked="" type="checkbox"/> ICE / COOL <input type="checkbox"/> OTHER:					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	DATE	TIME	C1	BTEX	TPH	EXT
<i>H9DD955</i>									
<i>21</i>	SP3 @ 4'	<i>G</i>	<i>1</i>	2/27/19	2:15 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>22</i>	SP3 @ 5'			2/27/19	2:22 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>23</i>	SP3 @ 6'			2/27/19	2:35 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>24</i>	SP3 @ 7'			2/27/19	2:50 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>25</i>	SP4 @ SURFACE			2/27/19	2:55 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>26</i>	SP4 @ 1'			2/27/19	3:01 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>27</i>	SP4 @ 2'			3/1/19	9:59 AM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>28</i>	SP4 @ 3'			3/1/19	10:25 AM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>29</i>	SP5 @ SURFACE			3/1/19	10:30 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	
<i>30</i>	SP5 @ 1'			3/1/19	10:35 PM	<i>✓</i>	<i>✓</i>	<i>✓</i>	

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

Relinquished By: <i>Jeff Ornelas</i> Date: <i>3-8-19</i> Time: <i>4:30 PM</i>		Received By: Date: Time:	
Relinquished By: Date: <i>3-8-19</i> Time: <i>4:30 PM</i>		Received By: Date: Time:	

Delivered By: (Circle One) *4.30 / #97*
Sampler - UPS - Bus - Other:

Sample Condition Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Dry <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: <i>[Signature]</i>
--	--

REMARKS:
Phone Result: ☐ Yes ☐ No ☐ Add'l Phone #:
Fax Result: ☐ Yes ☐ No ☐ Add'l Fax #:



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

41069

Company Name: BBC International, Inc.		BILL TO		ANALYSIS REQUEST																						
Project Manager: Cliff Brunson		P.O. #:																								
Address: P.O. Box 805		Company:																								
City: Hobbs		Attn:																								
State: NM Zip: 88241		Address:																								
Phone #: 575-397-6388		City:																								
Fax #: 575-397-0397		State:																								
Project #: Project Owner: Oxy		Zip:																								
Project Name: Harroun 9-1 CTB, 1/14/19, 1/21/19, 1/23/19		Phone #:																								
Project Location:		Fax #:																								
Sampler Name: Jeff Ornelas		PRESERV:		SAMPLING																						
FOR LAB USE ONLY																										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX		PRESERV		SAMPLING																		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME												
H900955	SP5 @ 2'	G	1			✓					✓		3/1/19	10:51 AM	✓	C1	BTEX	TPH Ext								
31	SP5 @ 3'												3/1/19	10:59 AM	✓											
32	SP6 @ SURFACE												3/1/19	11:05 AM	✓											
33	SP6 @ 1'												3/1/19	11:11 AM	✓											
34	SP6 @ 2'												3/1/19	11:22 AM	✓											
35	SP6 @ 3'												3/1/19	11:33 AM	✓											
36	SP6 @ 4'												3/1/19	11:44 AM	✓											
37	SP6 @ 5'												3/1/19	11:55 AM	✓											
38	SP6 @ 6'												3/1/19	12:12 PM	✓											
39	SP6 @ 7'												3/5/19	10:12 AM	✓											
40																										
PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the 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 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 data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal. Inquiries of whether such claim is based upon any of the above stated reasons or otherwise.																										
Relinquished By: <i>VBS</i>		Date: 3-8-19		Received By: <i>Good</i>		Time: 4:30 PM		Sample Condition		Checked By: <i>Good</i>		Time: 4:30 PM		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:						
Delivered By: (Circle One)		Date: 3-8-19		Received By: <i>Good</i>		Time: 4:30 PM		Sample Condition		Checked By: <i>Good</i>		Time: 4:30 PM		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:						
Sampler - UPS - Bus - Other: 4.30 / #97		Date: 3-8-19		Received By: <i>Good</i>		Time: 4:30 PM		Sample Condition		Checked By: <i>Good</i>		Time: 4:30 PM		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:						
REMARKS:																										

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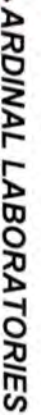
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

52

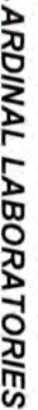
Company Name: BBC International, Inc.						BILL TO						ANALYSIS REQUEST							
Project Manager: Cliff Brunson						P.O. #:													
Address: P.O. Box 805						Company: D&Y													
City: Hobbs						Attn: L.D. Thich													
State: NM Zip: 88241						Address:													
Phone #: 575-397-6388 Fax #: 575-397-0397																			
Project #:						City:													
Project Owner: Oxy						State:													
Project Location: Harroun 9-1 CTB, 1/14/19, 1/21/19, 1/23/19						Zip:													
Sample Name: Jeff Ornelas						Fax #:													
FOR LAB USE ONLY						PRESERV.						SAMPLING							
Lab I.D.						MATRIX													
Sample I.D.						GROUNDWATER													
						WASTEWATER													
						SOIL													
						OIL													
						SLUDGE													
						OTHER :													
						ACID/BASE:													
						ICE / COOL													
						OTHER :													
H9D0955						DATE						TIME							
41 SP6 @ 8'						3/5/19						10:33 AM							
42 SP6 @ 9'						3/5/19						10:41 AM							
43 SP6 @ 10'						3/5/19						10:49 AM							
44 SP6 @ 11'						3/5/19						10:59 AM							
45 SP7 @ SURFACE						3/1/19						1:01 PM							
46 SP7 @ 1'						3/1/19						1:11 PM							
47 SP7 @ 2'						3/1/19						1:29 PM							
48 SP7 @ 3'						3/1/19						1:48 PM							
49 SP7 @ 4'						3/1/19						2:15 PM							
50 SP7 @ 5'						3/1/19						2:51 PM							
RELEASE NOTE: Liability and Damages: Contractor's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is asserted upon any of the above stated reasons or otherwise.																			
Relinquished By: V.H. Ornelas						Date: 3-8-19						Received By: J. H. Ornelas							
Relinquished By: J. H. Ornelas						Date: 3-8-19						Received By: J. H. Ornelas							
Delivered By: (Circle One)						Sample Condition						CHECKED BY: (initials)							
Cool Intact						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						J. H. Ornelas							
Sampler - UPS - Bus - Other:						4.30/ #49													



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

8016

Company Name: BBC International, Inc.		BILL TO		ANALYSIS REQUEST																									
Project Manager: Cliff Brunson		P.O. #:																											
Address: P.O. Box 805		Company: Day																											
City: Hobbs		Attn: L. D. O'Brien																											
State: NM zip: 88241		Address:																											
Phone #: 575-397-6388 Fax #: 575-397-0397		City:																											
Project #:		State:																											
Project Name: Harroun 9-1 CTB, 1/14/19, 1/21/19, 1/23/19		zip:																											
Project Location:		Phone #:																											
Sampler Name: Jeff Ornelas		Fax #:																											
FOR LAB USE ONLY		PRESERV		SAMPLING																									
Lab I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME													
Sample I.D.																													
H900955		SP10 @ 7'		6										3/5/19		9:50 AM		C1											
71		SP10 @ 8'		1										3/5/19		10:10 AM		BTEx											
72		SP10 @ 9'												3/5/19		10:20 AM		TPH Ext											
73		SP11 @ SURFACE												3/5/19		11:11 AM													
74		SP11 @ 1'												3/5/19		11:20 AM													
75		SP11 @ 2'												3/5/19		11:30 AM													
76		SP11 @ 3'												3/5/19		11:41 AM													
77		SP12 @ SURFACE												3/5/19		11:49 AM													
78		SP12 @ 1'												3/5/19		12:12 PM													
79		SP12 @ 2'												3/5/19		12:45 PM													
80																													
Relinquished By:		Date: 3-8-19		Received By:		Time: 4:30 PM		Sample Condition		CHECKED BY:		Phone Result:		Add'l Phone #:		REMARKS:													
Jeff Ornelas		3-8-19		Jeff Ornelas		4:30 PM		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		gfo		Yes <input type="checkbox"/> No <input type="checkbox"/>																	
Relinquished By:		Date: 3-8-19		Received By:		Time: 4:30 PM		Sample Condition		CHECKED BY:		Phone Result:		Add'l Phone #:		REMARKS:													
Jeff Ornelas		3-8-19		Jeff Ornelas		4:30 PM		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		gfo		Yes <input type="checkbox"/> No <input type="checkbox"/>																	
Delivered By: (Circle One)		Time: 4:30 PM		Received By:		Time: 4:30 PM		Sample Condition		CHECKED BY:		Phone Result:		Add'l Phone #:		REMARKS:													
Jeff Ornelas		4:30 PM		Jeff Ornelas		4:30 PM		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		gfo		Yes <input type="checkbox"/> No <input type="checkbox"/>																	
Sampler - UPS - Bus - Other:		4:30 / #97		4:30 / #97		4:30 / #97		4:30 / #97		4:30 / #97		4:30 / #97		4:30 / #97		4:30 / #97													

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