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DELINEATION/REMEDIATION WORKPLAN

OXY – WHOMPING WILLOW CC 15-16 STATE COM 44H (Leak Date: 4/12/19)

RP # 2RP-5522

This delineation workplan and remediation proposal addresses the releases associated with RP # 2RP-5522.

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 near SP1 – SP3 and SP9 – SP12 (BLUE shade on diagram) will be excavated to a depth of 1 foot. The leak area near SP4 – SP8 (GREEN shade on diagram) will be excavated to a depth of 2 feet.

Bottom confirmation samples will be collected every 100 feet.

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.

YSG71-191114-C-1410

Form C-141 Page 3

State of New Mexico Oil Conservation Division

Incident ID		
District RP	2RP-5522	
Facility ID		
Application ID		

52'

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?	32 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ■ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ■ 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)?	☐ Yes ■ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ■ 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?	☐ Yes ■ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	■ Yes □ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ■ No
Are the lateral extents of the release within 300 feet of a wetland?	Yes No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ■ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	■ Yes □ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ■ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ■ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
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 well 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	ls.

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.

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State of New Mexico Oil Conservation Division

Incident ID		
District RP	2RP-5522	
Facility ID		
Application ID		

regulations all operators are required to report and/or file certain release noti public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a thre addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In
Printed Name: Wade Dittrich	Title: Environmental Coordinator
Signature: Fall Mary com	Date: 1/-5/9
email: wade_dittrich@oxy.com	Telephone: (575) 390-2828
OCD Only	
Received by:	Date:

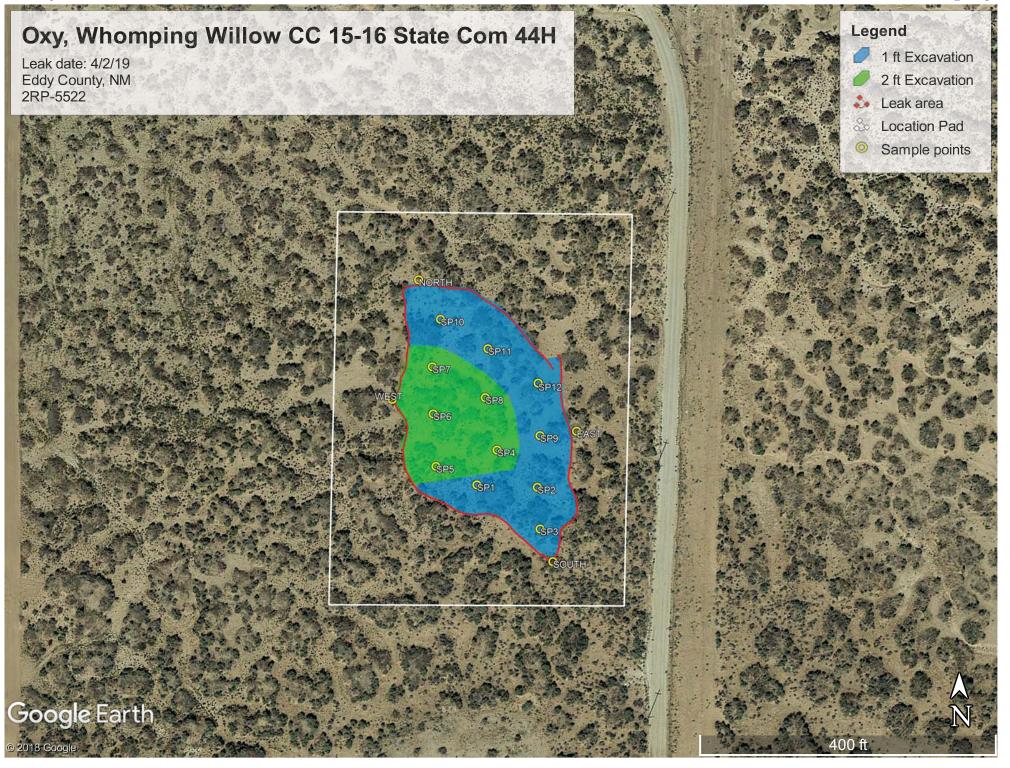
Form C-141 Page 5

State of New Mexico Oil Conservation Division

Incident ID		
District RP	2RP-5522	
Facility ID		
Application ID		

Remediation Plan

Remediation Plan Checklist: Each of the following items must be	e included in the plan.
Detailed description of proposed remediation technique	
Scaled sitemap with GPS coordinates showing delineation poir	ts
Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.	12/C)/4) NIMA C
Proposed schedule for remediation (note if remediation plan tir	
	active is more than 70 days OCB approvar is required)
D. C. I.D. C. I. D. L. C. I. C. I.	
Deferral Requests Only: Each of the following items must be co	nfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around p deconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human healt	h, the environment, or groundwater.
ř	
I hereby certify that the information given above is true and comple	te to the best of my knowledge and understand that pursuant to OCD
which may endanger public health or the environment. The accepta	certain release notifications and perform corrective actions for releases
liability should their operations have failed to adequately investigat	e and remediate contamination that nose 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 Dittrich	Title: Environmental Coordinator
Signature: finde butth	Date: 1/-519
email: wade_dittrich@oxy.com	Telephone: (575) 390-2828
email:	Telephone:
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature:	Date:



Oxy Whomping Willow CC 15-16 State Com 44H

Sample points

SP1, N 32.21361 W-103.96513

SP2, N 32.21360 W-103.96486

SP3, N 32.21344 W-103.96485

SP4, N 32.21374 W-103.96504

SP5, N 32.21367 W-103.96531

SP6, N 32.21387 W-103.96532

SP7, N 32.21405 W-103.96532

SP8, N 32.21393 W-103.96509

SP9, N 32.21379 W-103.96485

SP10, N 32.21423 W-103.96529

SP11, N 32.21412 W-103.96508

SP12, N 32.21399 W-103.96486

NORTH, N 32.21437 W-103.96538

SOUTH, N 32.21332 W-103.96479

EAST, N 32.21381 W-103.96469

WEST, N 32.21393 W-103.96550

Oxy, Whomping Willow CC 15-16 St Com 44H U/L P, Section 15, T24S, R29E Groundwater: 75'-100'





USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:		
Groundwater 🗸	New Mexico	~	GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

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

Table of data

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

Tab-separat	<u>ed data</u>									
Graph of dat	ta_									
Reselect per	iod									
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 measurema
1983-02-01		D	47.14			2	2	ı	J	
1987-10-16		D	51.84			2	2	ı	J	
1988-02-11		D	52.19			2	2		J	
1992-10-20		D	51.78			2	2	:	S	

Explanation				
Section		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	Α	Approved for publication Processing and review completed.		

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility Plug-Ins FOIA Privacy Policies and Notices

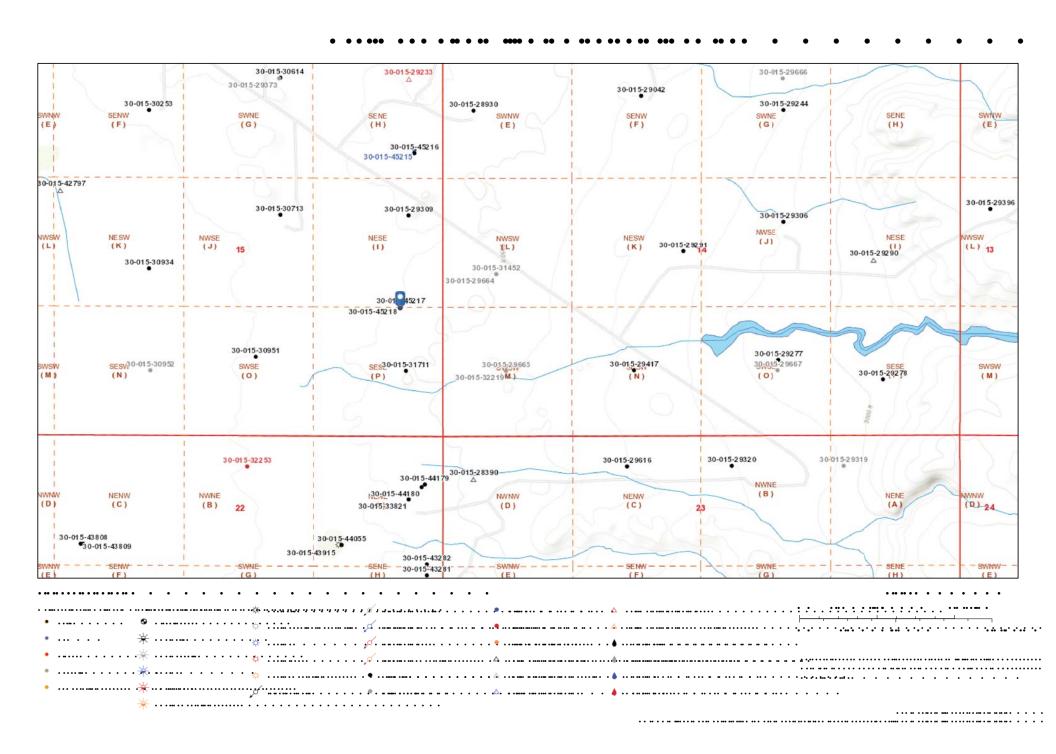
U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for New Mexico: Water Levels

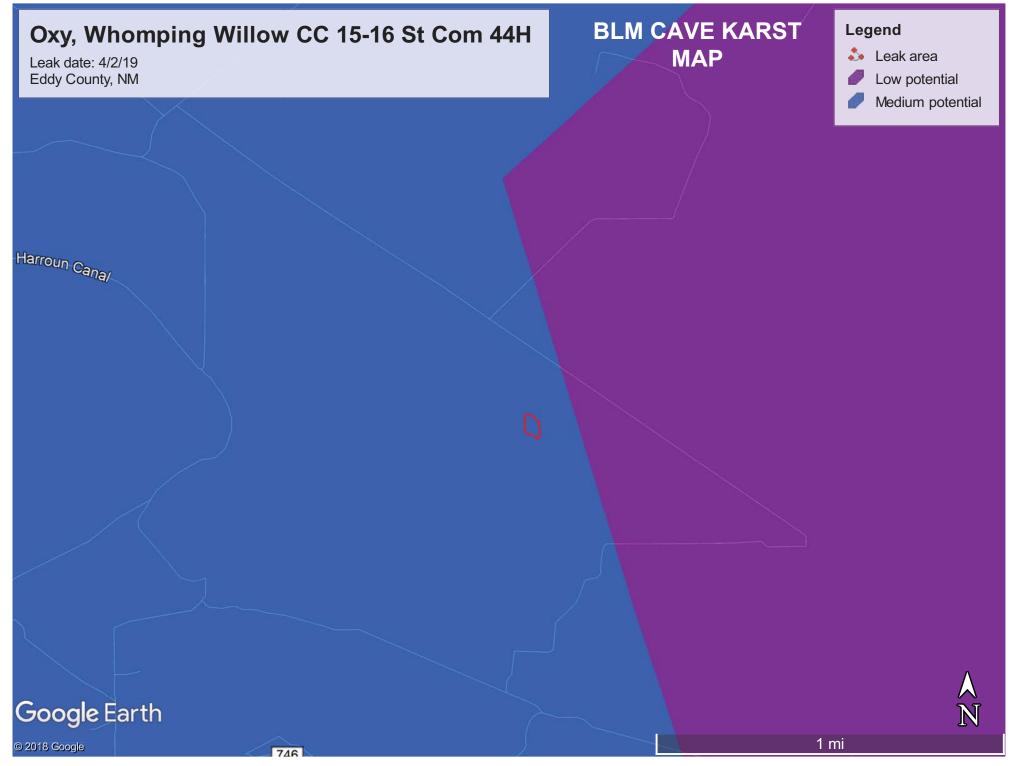
URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: <u>New Mexico Water Data Maintainer</u> Page Last Modified: 2019-07-02 14:37:49 EDT

0.45 0.43 nadww01

USA.gov





National Flood Hazard Layer FIRMette

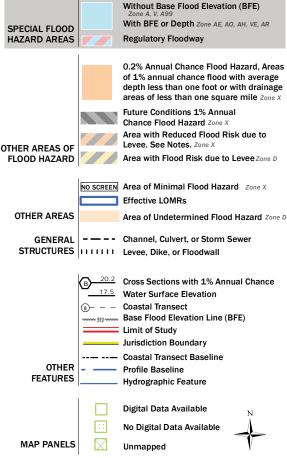




Legend

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

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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 7/2/2019 at 2:48:57 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.

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

an authoritative property location.

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.

Laboratory Analytical Results Summary Whomping Willow CC 15-16 State Com 44H (4/2/19)

			NORTH @	EAST @	WEST @	SOUTH @
		Sample ID	SURFACE	SURFACE	SURFACE	SURFACE
Analyte	Method	Date	10/16/19	10/16/19	10/16/19	10/16/19
			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	SM4500CI-B		176	192	208	160
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

			SP1 @			
		Sample ID	SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'
Analyte	Method	Date	10/16/19	10/16/19	10/16/19	10/16/19
			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	SM4500CI-B		2480	304	256	224
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1420	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		387	<10.0	<10.0	<10.0

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'
Analyte	Method	Date	10/16/19	10/16/19	10/16/19	10/16/19
			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	SM4500CI-B		2200	240	176	224
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1690	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		459	<10.0	<10.0	<10.0

			SP3 @		
		Sample ID	SURFACE	SP3 @ 1'	SP3 @ 2'
Analyte	Method	Date	10/16/19	10/17/19	10/17/19
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300
Chloride	SM4500CI-B		2080	80	80
GRO	TPH 8015M		<10.0	<10.0	<10.0
DRO	TPH 8015M		1580	<10.0	<10.0
EXT DRO	TPH 8015M	·	432	<10.0	<10.0

			SP4 @				
		Sample ID	_	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 4'
Analyte	Method	Date	10/17/19	10/17/19	10/17/19	10/17/19	10/17/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	< 0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	< 0.300
Chloride	SM4500CI-B		9330	896	144	48	32
GRO	TPH 8015M		<10.0	44.6	<10.0	<10.0	<10.0
DRO	TPH 8015M		4550	3580	20.8	13.2	<10.0
EXT DRO	TPH 8015M		165	29.8	<10.0	<10.0	<10.0

			SP5 @				
		Sample ID	SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 4'
Analyte	Method	Date	10/17/19	10/17/19	10/17/19	10/17/19	10/17/19
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		0.057	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500CI-B		8000	896	96	<16.0	<16.0
GRO	TPH 8015M		<10.0	43.1	<10.0	<10.0	<10.0
DRO	TPH 8015M		5060	3300	18.2	<10.0	<10.0
EXT DRO	TPH 8015M		163	19.2	<10.0	<10.0	<10.0

			SP6@	000 0 41	000 0 01	000 0 01
		Sample ID	SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'
Analyte	Method	Date	10/17/19	10/17/19	10/17/19	10/17/19
			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	SM4500CI-B		736	2120	1120	320
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1980	695	<10.0	<10.0
EXT DRO	TPH 8015M		167	<10.0	<10.0	<10.0

			SP7 @			
		Sample ID	SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'
Analyte	Method	Date	10/17/19	10/17/19	10/17/19	10/17/19
			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	SM4500CI-B		736	2120	592	528
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		2250	637	<10.0	182
EXT DRO	TPH 8015M		170	<10.0	<10.0	<10.0

Laboratory Analytical Results Summary Whomping Willow CC 15-16 State Com 44H (4/2/19)

			SP8 @			
		Sample ID	SURFACE	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'
Analyte	Method	Date	10/18/19	10/18/19	10/18/19	10/18/19
			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	SM4500CI-B		1200	544	352	176
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		4400	54.3	142	15.9
EXT DRO	TPH 8015M		521	<10.0	<10.0	<10.0

		0	SP9 @ SURFACE	CD0 @ 41	CD0 @ 21	CD0 @ 21
		Sample ID	SURFACE	SP9 @ 1'	SP9 @ 2'	SP9 @ 3'
Analyte	Method	Date	10/18/19	10/18/19	10/18/19	10/18/19
			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	SM4500CI-B		1310	368	400	272
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		3150	51.7	24.9	20
EXT DRO	TPH 8015M		479	12.6	<10.0	<10.0

			SP10 @	0040 @ 41	0040 @ 01	0040 @ 01
		Sample ID	SURFACE	SP10 @ 1'	SP10 @ 2'	SP10 @ 3'
Analyte	Method	Date	10/18/19	10/18/19	10/18/19	10/18/19
			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	SM4500CI-B		9000	112	48	32
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		4220	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		150	<10.0	<10.0	<10.0

			SP11 @			
		Sample ID	SURFACE	SP11 @ 1'	SP11 @ 2'	SP11 @ 3'
Analyte	Method	Date	10/18/19	10/18/19	10/18/19	10/18/19
			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	SM4500CI-B		6000	48	48	32
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1230	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		348	<10.0	<10.0	<10.0

			SP12 @			
		Sample ID	_	SP12 @ 1'	SP12 @ 2'	SP12 @ 3'
Analyte	Method	Date	10/18/19	10/18/19	10/18/19	10/18/19
			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	SM4500CI-B		8530	496	80	352
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		1050	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		279	<10.0	<10.0	<10.0



October 28, 2019

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: WHOMPING WILLOW CC 15-16 44H

Enclosed are the results of analyses for samples received by the laboratory on 10/21/19 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 accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keens

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,

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:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: NORTH @ SURFACE (H903596-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/24/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/24/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/24/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	< 0.150	0.150	10/24/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/24/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.9	73.3-12	9						
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	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	107 %	6 41-142	ı						
Surrogate: 1-Chlorooctadecane	110 %	6 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

Page 2 of 61



Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: EAST @ SURFACE (H903596-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.1	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	105	% 41-142	,						
Surrogate: 1-Chlorooctadecane	108	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

Page 3 of 61



Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: WEST @ SURFACE (H903596-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	105 5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	107 9	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/16/2019

Reported:

BTEX 8021B

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SOUTH @ SURFACE (H903596-04)

DILX 0021D	ilig/	Ng .	Allulyzo	u by. 143					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	106	% 41-142							
Surrogate: 1-Chlorooctadecane	108 9	% 37.6-14	7						

Analyzed By: MS

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 1 @ SURFACE (H903596-05)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	1420	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	387	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	93.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	140	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 1 @ 1' (H903596-06)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	101	% 41-142	,						
Surrogate: 1-Chlorooctadecane	103	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 1 @ 2' (H903596-07)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.3-12	9						
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	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	98.7	% 41-142							
Surrogate: 1-Chlorooctadecane	102 9	6 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Project Location:

OXY

Sample Received By:

Tamara Oldaker

Sample ID: SP 1 @ 3' (H903596-08)

BTEX 8021B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

103 % Surrogate: 1-Chlorooctadecane 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

BTEX 8021B

10/28/2019

Sampling Type:

Soil

Project Name:

mg/kg

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

Analyte

Surrogate: 1-Chlorooctadecane

GRO C6-C10*

DRO >C10-C28*

OXY

Sample ID: SP 2 @ SURFACE (H903596-09)

TPH 8015M	mg/	kg	Analyze	d By: MS					S-04
Chloride	2200	16.0	10/24/2019	ND	432	108	400	3.77	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Surrogate: 4-Bromofluorobenzene (PID	97.9	% 73.3-12	9						
Total BTEX	<0.300	0.300	10/25/2019	ND					
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

Method Blank

ND

ND

ND

BS

208

211

% Recovery

104

106

True Value QC

200

200

RPD

2.64

2.41

Qualifier

Analyzed

10/24/2019

10/24/2019

10/24/2019

Analyzed By: MS

EXT DRO >C28-C36	459	10.0
Surrogate: 1-Chlorooctane	102 %	41-142

Result

<10.0

1690

160 %

Reporting Limit

10.0

10.0

37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 2 @ 1' (H903596-10)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	< 0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.0	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	103 9	% 41-142							
Surrogate: 1-Chlorooctadecane	105 9	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/16/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 2 @ 2' (H903596-11)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.1	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Analyzed By: MS

Surrogate: 1-Chlorooctane 102 % 41-142 Surrogate: 1-Chlorooctadecane 104 % 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:

10/21/2019

Sampling Date:

10/16/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 2 @ 3' (H903596-12)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 73.3-129	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Chloride, SM4500CI-B Analyte	mg/ Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
			<u> </u>		BS 432	% Recovery	True Value QC 400	RPD 3.77	Qualifier
Analyte	Result	Reporting Limit	Analyzed 10/24/2019	Method Blank		•			Qualifier
Analyte Chloride	Result	Reporting Limit	Analyzed 10/24/2019	Method Blank		•			Qualifier Qualifier
Analyte Chloride TPH 8015M	Result 224 mg/	Reporting Limit 16.0	Analyzed 10/24/2019 Analyze	Method Blank ND d By: MS	432	108	400	3.77	
Analyte Chloride TPH 8015M Analyte	Result 224 mg/	Reporting Limit 16.0 kg Reporting Limit	Analyzed Analyzed Analyzed	Method Blank ND d By: MS Method Blank	432 BS	108 % Recovery	400 True Value QC	3.77 RPD	

Analyzed By: MS

Surrogate: 1-Chlorooctane 97.6 % 41-142 Surrogate: 1-Chlorooctadecane 100 % 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:

10/21/2019

Sampling Date:

10/16/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 3 @ SURFACE (H903596-13)

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	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2080	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d 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	10/25/2019	ND	208	104	200	2.64	
DRO >C10-C28*	1580	10.0	10/25/2019	ND	211	106	200	2.41	
			10/25/2019	ND					

Surrogate: 1-Chlorooctane 97.7 % 41-142 Surrogate: 1-Chlorooctadecane 149 % 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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 3 @ 1' (H903596-14)

BTEX 8021B	mg/	kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	< 0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	208	104	200	2.64	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	211	106	200	2.41	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	100 %	6 41-142	ı						
Surrogate: 1-Chlorooctadecane	103 9	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 3 @ 2' (H903596-15)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	80.0	16.0	10/24/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					

Surrogate: 1-Chlorooctane 88.5 % 41-142 Surrogate: 1-Chlorooctadecane 103 % 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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil Cool & Intact

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition: Sample Received By:

Tamara Oldaker

Project Number: Project Location:

4-2-19 OXY

Sample ID: SP 4 @ SURFACE (H903596-16)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID

97.3 %

73.3-129

Chloride, SM4500CI-B	mg/kg		Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9330	16.0	10/24/2019	ND	416	104	400	0.00	QM-07
TPH 8015M	mg	/kg	Analyze	d 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	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	4550	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	165	10.0	10/25/2019	ND					

Surrogate: 1-Chlorooctane

86.6 %

41-142

 ${\it Surrogate: 1-Chlorooctade cane}$

343 %

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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 4 @ 1' (H903596-17)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	132 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	44.6	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	3580	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	29.8	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	129 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	218 9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

0XY

Sample ID: SP 4 @ 2' (H903596-18)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	<0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.2	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	20.8	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	88.3	% 41-142	?						
Comment of Children and James	100	0/ 27/14	17						

 ${\it Surrogate: 1-Chlorooctade cane}$

 $100\,\%$

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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

BTEX 8021B

Sampling Type:

Soil

Project Name:

10/28/2019

mg/kg

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 4 @ 3' (H903596-19)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.68	83.8	2.00	4.69	
Toluene*	< 0.050	0.050	10/25/2019	ND	1.65	82.5	2.00	4.07	
Ethylbenzene*	< 0.050	0.050	10/25/2019	ND	1.66	83.0	2.00	3.66	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	4.98	83.0	6.00	3.42	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 %	73.3-129	9						
	_	_							

Analyzed By: MS

Surrogaie: 4-Bromojiuorobenzene (FID	103	70 /3.3-125	,						
Chloride, SM4500CI-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	13.2	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					

Surrogate: 1-Chlorooctane

89.2 %

41-142

Surrogate: 1-Chlorooctadecane

98.1 %

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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 4 @ 4' (H903596-20)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	87.7	% 41-142	!						
Surrogate: 1-Chlorooctadecane	94.4	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

WHOMPING WILLOW CC 15-16 44H

Sampling Type:

Soil

Project Name:

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 5 @ SURFACE (H903596-21)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	0.057	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	139	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8000	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	5060	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	163	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	85.6	% 41-142	?						
Surrogate: 1-Chlorooctadecane	368	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 5 @ 1' (H903596-22)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	43.1	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	3300	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	19.2	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	126 9	% 41-142	?						

211 % Surrogate: 1-Chlorooctadecane 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

BTEX 8021B

mg/kg

WHOMPING WILLOW CC 15-16 44H

Sampling Type:

Soil

Project Name:

10/28/2019

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 5 @ 2' (H903596-23)

	J ,								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 %	6 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	18.2	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					

Analyzed By: MS

Surrogate: 1-Chlorooctane 89.9 % 41-142 103 % Surrogate: 1-Chlorooctadecane 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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 5 @ 3' (H903596-24)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	85.1	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	93.1	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 5 @ 4' (H903596-25)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	84.1	% 41-142							
Surrogate: 1-Chlorooctadecane	90.9	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 6 @ SURFACE (H903596-26)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	< 0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	< 0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	< 0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.7	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d 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	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	1980	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	167	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	85.6	% 41-142	?						
Surrogate: 1 Chloroctadocano	2170	27 6 1 4	17						

Surrogate: 1-Chlorooctadecane

217 %

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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 6 @ 1' (H903596-27)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2120	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	695	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	89.9	% 41-142	?						
Common and a 1 Chilaman and a large	122	0/ 27 / 14	17						

 ${\it Surrogate: 1-Chlorooctade cane}$

122 %

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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 6 @ 2' (H903596-28)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.2	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	87.6	% 41-142	!						
Surrogate: 1-Chlorooctadecane	97.7	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 6 @ 3' (H903596-29)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	85.7	% 41-142							
Surrogate: 1-Chlorooctadecane	96.5	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type: Sampling Condition: Soil Cool & Intact

Project Name:

WHOMPING WILLOW CC 15-16 44H

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 7 @ SURFACE (H903596-30)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d 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	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	2250	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	170	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	92.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	188	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 7 @ 1' (H903596-31)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2120	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	637	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	87.5	% 41-142	ı						
Surrogate: 1-Chlorooctadecane	122 5	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 7 @ 2' (H903596-32)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	< 0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	87.2	% 41-142	<u> </u>						
Surrogate: 1-Chlorooctadecane	100 9	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/17/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 7 @ 3' (H903596-33)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 %	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	182	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	88.2	% 41-142	1						

Surrogate: 1-Chlorooctadecane

116 %

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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 8 @ SURFACE (H903596-34)

	97	9	7						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d 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	10/25/2019	ND	211	105	200	0.599	
DRO >C10-C28*	4400	10.0	10/25/2019	ND	219	110	200	2.01	
EXT DRO >C28-C36	521	10.0	10/25/2019	ND					

Analyzed By: MS

Surrogate: 1-Chlorooctane 87.8 % 41-142 314% Surrogate: 1-Chlorooctadecane 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 8 @ 1' (H903596-35)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.3	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	10/24/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	220	110	200	0.281	
DRO >C10-C28*	54.3	10.0	10/24/2019	ND	228	114	200	3.81	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	106 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	1179	% 37.6-14	7						

37.6-147 Surrogate: 1-Chlorooctadecane

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 8 @ 2' (H903596-36)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	142	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	87.9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	111 9	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 8 @ 3' (H903596-37)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	15.9	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	92.2	% 41-142	<u> </u>						
Surrogate: 1-Chlorooctadecane	109 9	% 37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 9 @ SURFACE (H903596-38)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	<0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d 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	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	3150	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	479	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	85.2	% 41-142	<u> </u>						
Surrogate: 1-Chlorooctadecane	251 9	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

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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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 9 @ 1' (H903596-39)

	91	9							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.92	96.1	2.00	2.01	
Toluene*	< 0.050	0.050	10/25/2019	ND	1.91	95.5	2.00	2.32	
Ethylbenzene*	< 0.050	0.050	10/25/2019	ND	1.93	96.7	2.00	1.65	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.83	97.1	6.00	1.77	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5 %	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	51.7	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	12.6	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	91.0 9	% 41-142	,						

Analyzed By: MS

Surrogate: 1-Chlorooctane 91.0 % 110 % 37.6-147 Surrogate: 1-Chlorooctadecane

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 9 @ 2' (H903596-40)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/25/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 %	6 73.3-129	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	24.9	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Analyzed By: MS

Surrogate: 1-Chlorooctane 96.5 % 41-142 Surrogate: 1-Chlorooctadecane 111 % 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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 9 @ 3' (H903596-41)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/25/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	20.0	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	91.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	103 9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 10 @ SURFACE (H903596-42)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/25/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9000	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d 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	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	4220	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	150	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	91.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	338	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 10 @ 1' (H903596-43)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/25/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/25/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/25/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	88.5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	98.1	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane

98.1 %

37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 10 @ 2' (H903596-44)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	73.3-12	9						
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	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	89.3	% 41-142							
Surrogate: 1-Chlorooctadecane	100 9	37.6-14	7						

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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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 10 @ 3' (H903596-45)

	9/	9	7	u 5,1115					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 5	% 73.3-12	9						
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	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	96.2	% 41-142							
Surrogate: 1-Chlorooctadecane	107 9	% 37.6-14	7						

Analyzed By: MS

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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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

0XY

Sample ID: SP 11 @ SURFACE (H903596-46)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d 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	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	1230	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	348	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	91.7	% 41-142							
Surrogate: 1-Chlorooctadecane	150 9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

EXT DRO >C28-C36

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 11 @ 1' (H903596-47)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					_
Chloride, SM4500CI-B Analyte	mg / Result	Reporting Limit	Analyze Analyzed	d By: AC Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
			<u> </u>		BS 448	% Recovery	True Value QC 400	RPD 0.00	Qualifier
Analyte	Result	Reporting Limit	Analyzed 10/25/2019	Method Blank		,	·		Qualifier
Analyte Chloride	Result	Reporting Limit	Analyzed 10/25/2019	Method Blank		,	·		Qualifier Qualifier
Analyte Chloride TPH 8015M	Result 48.0 mg/	Reporting Limit 16.0	Analyzed 10/25/2019 Analyze	Method Blank ND d By: MS	448	112	400	0.00	

ND

10/24/2019

Analyzed By: MS

Surrogate: 1-Chlorooctane 92.2 % 41-142 Surrogate: 1-Chlorooctadecane 106 % 37.6-147

<10.0

10.0

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 11 @ 2' (H903596-48)

DILX GOZID	ilig/ kg		Allalyze	Allalyzed by: 1-15					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 73.3-12	9						
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	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	89.3	% 41-142							
Surrogata: 1-Chloroctadacana	101	% 37.6-14	7						

Analyzed By: MS

Surrogate: 1-Chlorooctadecane 101 % 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:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

Total BTEX

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 11 @ 3' (H903596-49)

		•		•					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	< 0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	

ND

10/26/2019

Analyzed By: MS

1000

< 0.300

72 2 120

0.300

106	% 73.3-12	9						
mg/kg		Analyzed By: AC						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
32.0	16.0	10/25/2019	ND	448	112	400	0.00	
mg	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
<10.0	10.0	10/24/2019	ND	217	109	200	2.92	
<10.0	10.0	10/24/2019	ND					
-	Result 32.0 mg, Result <10.0 <10.0	mg/kg Result Reporting Limit 32.0 16.0 mg/kg Result Reporting Limit <10.0 10.0 <10.0 10.0	mg/kg Analyzed Result Reporting Limit Analyzed 32.0 16.0 10/25/2019 mg/kg Analyzed Result Reporting Limit Analyzed <10.0	mg/kg Analyzed Method Blank 32.0 16.0 10/25/2019 ND Ms Result Reporting Limit Analyzed Method Blank <10.0	mg/kg Analyzed Method Blank BS 32.0 16.0 10/25/2019 ND 448 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS <10.0	mg/kg Analyzed By: AC Result Reporting Limit Analyzed Method Blank BS % Recovery 32.0 16.0 10/25/2019 ND 448 112 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery <10.0	mg/kg Analyzed By: AC Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC 32.0 16.0 10/25/2019 ND 448 112 400 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <10.0	mg/kg Analyzed By: AC Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 32.0 16.0 10/25/2019 ND 448 112 400 0.00 mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <10.0

Surrogate: 1-Chlorooctane

92.0 %

41-142

Surrogate: 1-Chlorooctadecane

105 %

37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 12 @ SURFACE (H903596-50)

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	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8530	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	1050	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	279	10.0	10/24/2019	ND					
Surrogate: 1-Chlorooctane	86.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	140 9	% 37.6-14	7						

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

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number: Project Location: 4-2-19

OXY

Sample Received By:

Tamara Oldaker

Sample ID: SP 12 @ 1' (H903596-51)

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	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	< 0.300	0.300	10/26/2019	ND					

Surrogate: 4-Bromojtuorobenzene (P1D	100 70	/3.3-129	
611 11 614 F00 61 B			

Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/24/2019	ND	208	104	200	1.78	
DRO >C10-C28*	<10.0	10.0	10/24/2019	ND	217	109	200	2.92	
EXT DRO >C28-C36	<10.0	10.0	10/24/2019	ND					

Surrogate: 1-Chlorooctane 91.9 % 41-142 103 % Surrogate: 1-Chlorooctadecane 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Page 52 of 61



Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

BTEX 8021B

10/28/2019

mg/kg

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Sample Received By:

Tamara Oldaker

Project Location:

OXY

Sample ID: SP 12 @ 2' (H903596-52)

	91	9							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	200	100	200	1.80	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	194	97.2	200	2.28	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	84.2	% 41-142							

Analyzed By: MS

Surrogate: 1-Chlorooctadecane

84.2 %

87.0 %

37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Page 53 of 61



Analytical Results For:

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

Fax To: (575) 397-0397

Received:

10/21/2019

Sampling Date:

10/18/2019

Reported:

10/28/2019

Sampling Type:

Soil

Project Name:

WHOMPING WILLOW CC 15-16 44H

Sampling Condition:

Cool & Intact

Project Number:

4-2-19

Project Location:

OXY

Sample Received By:

Tamara Oldaker

Sample ID: SP 12 @ 3' (H903596-53)

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	10/26/2019	ND	1.81	90.4	2.00	0.948	
Toluene*	<0.050	0.050	10/26/2019	ND	1.92	95.8	2.00	0.181	
Ethylbenzene*	<0.050	0.050	10/26/2019	ND	1.90	95.0	2.00	0.181	
Total Xylenes*	<0.150	0.150	10/26/2019	ND	5.90	98.4	6.00	0.540	
Total BTEX	<0.300	0.300	10/26/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 5	% 73.3-12	9						
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	10/25/2019	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/25/2019	ND	200	100	200	1.80	
DRO >C10-C28*	<10.0	10.0	10/25/2019	ND	194	97.2	200	2.28	
EXT DRO >C28-C36	<10.0	10.0	10/25/2019	ND					
Surrogate: 1-Chlorooctane	86.5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	87.8	% 37.6-14	7						

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Notes and Definitions

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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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ARDINAL LABORATORIES

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

	(303) 333-2326 FAX (303) 333-247					
Company Name:	BBC International, Inc.		BILL TO		ANALYSIS REQUEST	
Project Manager	: Cliff Brunson		P.O. #:			
Address: P.O.	Box 805		Company: ○ 火 ✓			
city: Hobbs	State: NM	Zip: 88241	Attn:			
Phone #: 575-3	397-6388 Fax #: 575-	-397-0397	Address:			
Project #:	Project Owner		City:			
Project Name: V	WHOMPING WILLOW CC 15-16	14H - 4-2-19	State: Zip:			
Project Location			Phone #:	9 1		
Sampler Name:	Jels Ornolas		Fax #:			
FOR LAB USE ONLY	00	MATRIX	PRESERV. SAMPLIN	IG , 3 × U		
3.		(C)OMP. ERS ATER FER		W - W		
	0	NER VAT	اداننا	7 7		
Lab I.D.	Sample I.D.	B OR INDW EWA"	R:			
		(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE ICE / COOL OTHER:			
H903594	NORTH & CUREACE	0 # 6 × 0 0	5 8 5 DATE	TIME		
	NORTH @ SURFACE	GU	10-16-19			
(EAST @ SURFACE		10-16-19			
	WEST @ SURFACE		10-16-19			
4	SOUTH @ SURFACE		10-16-19	TIRLED A. T. C.		
,5	SP1 @ SURFACE		10-16-19			
9	SP1 @ 1'		10-16-19			
	SP1 @ 2'		100 AND	SERVICE AT		
8	SP1 @ 3'		10-16-19			
4	SP2 @ SURFACE		10-16-19			
PLEASE NOTE: Liability as	SP2 @ 1' nd Damages. Cardinal's liability and client's exclusive remedy for	any claim arising whether based in contract	ct or tort, shall be limited to the amount paid	by the client for the		
analyses, All claims includi	ing those for negligence and any other cause whatsoever shall be	deemed waived unless made in writing ar a without limitation, business interruptions	nd received by Cardinal within 30 days afte is loss of use, or loss of profits incurred by o	completion of the applicable lient, its subsidiaries,		
affiliates or successors arisi	ing out of or related to the performance of services hereunder by t	Cardinal, regardless of whether such claim	is based upon any of the above stated rea	sons or otherwise.	Add'l Phone #:	
Relinquished B	Date: 1021-1	Received By:	1990	Phone Result: ☐ Yes ☐ No Fax Result: ☐ Yes ☐ No		
HER	Time: 8:00 tu	Sun 1		REMARKS:		
Relinquished B	y: 11 Date; 21 -1	Received By:	00/11			
Juan	If sua Time: 4:301	nucero	Eldakak			
Delivered By	: (Circle One) _ 3.48	#97 Sample Condi				
Sampler - UPS	- Bus - Other: Costanted	Cool Intact				
	I BIIII AU D AU	TI NA I N	10			

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

2 of 6

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240

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

Company Name:	BBC International, Inc.	BILL TO											A	NAL	YSI	S RE	QUE	ST								
Project Manager	: Cliff Brunson	P.0	O. #:																							
Address: P.O.							Co	mpa	ny:		1170, 170, 170															
city: Hobbs	State: NM	Zip	: 8	824	1		At	tn:																		
Phone #: 575-3	397-6388 Fax #: 575	-397	7-03	397			Ad	Idres	ss:				1											-		
Project #:	Project Owne	Cit	ty:																							
Project Name: V	VHOMPING WILLOW CC 15-16	Sta	ate:			Zip:																				
Project Location	i:	Ph	one	#:					2																	
Sampler Name:		Fa	x #:					١,	9			×				1										
FOR LAB USE ONLY					MAT	RIX		PRE	SEF	₹V.	SAMPLI	NG	-	10	×	1	7)					1				
Lab I.D. H903594	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	SOIL	OIL	SLUDGE OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	-	C h 10 r	BTE	0	@ / /								læ.	
11	SP2 @ 2'	Ğ	ı	Ĭ.	V				/		10-16-19	2:30	7	~	~	-										
17	SP2 @ 3'	Ti	T		1				1		10-16-19	2:50		1	1	1										
13	SP3 @ SURFACE										10-16-19					Ш										
	SP3 @ 1'										10-17-19				-											
15	SP3 @ 2'	Ш									10-17-19	CONTRACTOR OF THE PERSON OF TH	_		\perp											
16	SP4 @ SURFACE										10-17-19		_		_					-	-					-
17	SP4 @ 1'	\coprod	\coprod		-		_	-			10-17-19		\perp		+	\mathbb{H}	_				-	-	-	-		-
18	SP4 @ 2'	H	H		4	-		-			10-17-19	1000	\perp	H	-	+	-		-	-	+	-			1	-
19	SP4 @ 3'	H	11		\perp		_	1			10-17-19	12:55	+	1,		1	,				1	-		-		
DI EASE NOTE: Liability a	SP4 @ 4' nd Damages. Cardinal's liability and client's exclusive remedy for	any da	im aris	ing whet	her base	d in cont	ract or t	ort, sha	Il be lin	mited	to the amount pai	d by the client	for the	U	A.	B										
newtones All claims includ	nd Damages. Cardinals liability and clients exclusive remedy looking those for negligence and any other cause whatsoever shall be Cardinal be liable for incidental or consequental damages, includi	e deeme	d waiv	ed unles	s made i	n writing	and rec	ceived b	y Card	inal v	vithin 30 days afte	r completion o	it the ap	ppiicab	le											
affiliates or successors aris	ing out of or related to the performance of services hereunder by	Cardina	il, rega	rdless of	whether	such cla	ing is ba	sed up	оп апу	of the	e above stated re	Phone R	wise.		□ Y	00		lo.	Δdd'l	Phon	o #·					-
Relinguished B	Time: 800 AM	7	J.	ved E	el	#	en	4	-			Fax Res REMARI	ult:		□ Y					Fax #						
Delivered By: (Circle One) Date: 0-21-19 Received By: Time: 4-30 Pm Sample Condition Cool Intact											C															
Delivered By Sampler - UPS	Cond Intac s 🔲	t	V		(Init	(ED BY: tials)																				
	- Bus - Other: Corrected	- 3	DIC	C	∐ N		No	1	_	-																

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 58 of 61

ARDINAL LABORATORIES

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

Company Name:	BBC International, Inc.		BILL TO	ANALYSIS	REQUEST
Project Manager:	: Cliff Brunson		P.O. #:		
Address: P.O.	Box 805		Company:		
City: Hobbs	State: NN	VI Zip: 88241	Attn:	_	
Phone #: 575-3	97-6388 Fax #: 5	575-397-0397	Address:	_	
Project #:	Project Ow	_{vner:} Oxy	City:		
Project Name: V	VHOMPING WILLOW CC 15-1	16 44H - 4-2-19	State: Zip:		
Project Location			Phone #:		
Sampler Name:			Fax #:	- 2 × 3	
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING		
		(C)OMP. ERS ATER FER		10 H	
		(C) VATE	\ \(\cdot \)	2 2 2	
Lab I.D.	Sample I.D.	B OF TAIN NDV EVVA	34SI	7 7 2	
		(G)RAB OR (C)ON # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	OTHER: ACID/BASE: ICE / COOL. OTHER:	ME 0 8 F	
H903596	SP5 @ SURFACE	(G)RAB OR # CONTAIN GROUNDW WASTEWAT SOIL OIL SI UDGE	10-17-19 1:20	VIE V	
			1 10-17-19 1:36		
CL	SP5 @ 2'		10-17-19 1:40		
211	SP5 @ 1' SP5 @ 2' SP5 @ 3'		10-17-19 1:50		
25	SP5 @ 4'		10-17-19 2:01		
25 26	SP6 @ SURFACE		10-17-19 2:11		
77	SP6 @ 1'		10-17-19 2:20		
28	SP6 @ 2'		10-17-19 2:32		
	SP6 @ 3'		10-17-19 2:45		
30	SP7 @ SURFACE	11111	10-17-19 2:50		
analysis All claims includi	nd Damages. Cardinal's liability and client's exclusive reme ng those for negligence and any other cause whatsoever s	shall be deemed waived unless made in writing a	and received by Cardinal within 30 days after comp	ation of the applicable	
consider. In no quant chall C	ardinal be liable for incidental or consequental damages, in ing out of or related to the performance of services hereund	ncluding without limitation, business interruption	s, loss of use, or loss of profits incurred by client, it profits based upon any of the above stated reasons of	otherwise.	
Relinquished B		y-19 Received By:	Pho	ne Result: ☐ Yes ☐ No Add'l Phone Result: ☐ Yes ☐ No Add'l Fax #:	
YAA	Time: Q:0	more Stacker	REI	IARKS:	
Relinquished B	V: A Date:	Received By:			
mae	Hella Time;	2-24	111/1/11		
7.1200	7.7	Sample Cond	lition CHECKED BY:		e e
	: (Circle One) _3. 4c	Cool Intact	(Initials)		
Sampler - UPS	- Bus - Other: Corrected	7-3.0 -3.0 No 1	ves No		

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Fage 59 of 61

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4 0 6

4	RDINAL LAB	ORAT	OR.	IES
	101 East Marland	, Hobbs,	NM	88240

	(505) 393-2326 FAX (505) 39	3-2476						-													_				
Company Name	BBC International, Inc.		1.	B		LTO			_	_			ANA	LY:	SIS	RE	QUE	ST		 					
Project Manager	: Cliff Brunson						P	O. #.												ı					1 1
Address: P.O.	Box 805						С	omp	any:																1
city: Hobbs		NM Zip	: 8	824	1		А	ttn:																	
Phone #: 575-3		575-39	_	397			Α	ddre	ss:					l											
Project #:		Owner: O					С	ity:																	
Project Name: \	VHOMPING WILLOW CC 1	5-16 44	- 4	-2-1	9		s	tate:		Zi	ip:					040									
Project Location	n:						Р	hone	#:					1		1	÷								
Sampler Name:							F	ax #:] _9			, ,								P	1 1
FOR LAB USE ONLY		(C)OMP.	ERS	MTER		ATRIX			ESER'	V.	SAMPLI	NG	Phonid	2 1	ア后と	J H									
Lab I.D.	Sample I.D.	(G)RAB OR	₽	GROUNDWATER	WASTEWATER	OIL	SLUDGE	ACID/BASE	ICE / COOL	OTHER:	DATE	TIME	70	;	2	77					*				
31	SP7 @ 1'	G	I			_			-	1	0-17-19	3:01	-		-		+								
31 3z	SP7 @ 2'	1	Ti			1			1	1	0-17-19	3:22			1	-1									
33 34 35	SP7 @ 3'									1	0-17-19	3:33													
34	SP8 @ SURFACE									1	0-18-19	9:19													
35	SP8 @ 1'									1	0-18-19	9:30													1
36	SP8 @ 2'		Ш					\perp		1	0-18-19	9:45	Ш		\perp										
37	SP8 @ 3'									1	10-18-19	9:59													
.38	SP9 @ SURFACE									1	10-18-19	10:02		\perp	\perp								1	_	
34 37 38 39	SP9 @ 1'		П					Ļ		_	10-18-19			_	\perp	_	,								
40	SP9 @ 2'	۵	1		q	/_			1		10-18-19	12000000000000	4	1	Ψ_	_	1								
analyses. All claims includi service. In no event shall C	nd Damages. Cardinal's liability and client's exclusive r ng those for negligence and any other cause whatsoew ardinal be liable for incidental or consequental damage ing out of or related to the performance of services here	ver shall be deem es, including with	ed wai out limi	ved unle tation, b	ss made Isiness	in writi interrup	ng and retions	ceived l s of use	oy Cardin or loss of	nal with of profi	nin 30 days afte its incurred by	er completion of client, its subsid	the appli iaries, rise.												
Relinquished B	Affiliates of Successors arising out of or retained to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated received By: Date: 0-21 Received By: Time: 8:30 MM Mall MM MM MM MM MM MM														Yes		□ No		i'i Ph	one ; x #:	#:				
Relinquished B	da	k	les contractions	2																					
	Delivered By: (Circle One) - 3, 4																								

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Page 60 of 61

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

SIS REQUEST 5 of 6

ARDINAL LABORATORIES

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

Company Name	pany Name: BBC International, Inc.											P.O. #: ANALYSIS REQUEST																
Project Manage	ject Manager: Cliff Brunson																											
Address: P.O.	Box 805							C	omp	any	/ :																	
city: Hobbs	State: NM	Zip): {	382	41			Α	ttn:																			
Phone #: 575-3	Phone #: 575-397-6388 Fax #: 575-397-0397 A																		ľ									
Project #: Project Owner: Oxy Ci																												
Project Name: \	WHOMPING WILLOW CC 15-16	44F	- 4	-2-	19			S	tate:			Zip:									1							
Project Location	n:							Р	hone	e #:								١,	+									
Sampler Name:																9			4									
FOR LAB USE ONLY		١.		_	P	VIATE	XIX		PR	ESE	ERV	s.	AMPLII	NG	_ ι	8		1	Ui									
#CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE											OTHER:	D	ATE	TIME		Chlori	RTEX	. 1	TPH									
41	SP9 @ 3'	G				-				Á			18-19	10:30					1									
47	SP10 @ SURFACE	1	L							1		10-	18-19	10:40										N.				
43	SP10 @ 1'		П									10-	18-19	10:50														
	SP10 @ 2'		П							П		-	18-19	LES GROWING	_													
	SP10 @ 3'	11	\Box			\perp				1			18-19		1	Ш												_
	SP11 @ SURFACE	11	П			Ш			┸	Ц		_	18-19		_		1											
	SP11 @ 1'		П							1			18-19	Mark Carrell	_	\perp	\perp											
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49	SP11 @3'	Ш				\perp			\perp	1		10.000	18-19		\perp		\perp	-	1		_			_		1		
50	SP12 @ SURFACE and Damages, Cardinal's liability and client's exclusive remedy for	2011 0	1	Tion W	hothor	₩ hasad i	n cont	ract or	tort sh	100	limitor		18-19		t for th	<u>V</u>	4	1	w_									
analyses. All claims includ	ing those for negligence and any other cause whatsoever shall be Cardinal be liable for incidental or consequental damages, includi	deem	ed wai	ved un	less m	ade in v	vriting	and re	ceived	by Ca	ardinal	within 30	0 days afte	r completion	of the	applicat	ole											
affiliates or successors aris	ing out of or related to the performance of services hereunder by	Cardin	al reg	ardless	s of whe	ether si								sons or othe	rwise.					No	Λ.	ו ויום	hon	- #·				
Relinquished B	Time: 3:00 A	9 1	ece	ye o	W.	l		10	W	1	/			Phone F Fax Res REMAR	sult:					No			ax #					
Relinquished By: Date 10-21-19 Received By: Timez (* 300 Munara)											6	R																
	Delivered By: (Circle One) -3.4 #97 Sample Condition Cool Intact Sampler - UPS - Bus - Other: Other: -3.0 No No											KED E																
	(Writell C.	0	-	-		No		NO	1 1		>.																	

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Page 75 of 75

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 61 of 61

ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

	BBC International		T		B	3/L	L TO						ANAL	YSIS	RE	QUES	ST.							
	: Cliff Brunson							P.	0. #:	_														
Address: P.O.								C	ompa	any:													-	
city: Hobbs		State: NM	Zip:	8	8241	i		A	tn:															
Phone #: 575-3	397-6388	Fax #: 575-						A	ddre	ss:														
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Project Name: \	S	tate:			Zip:																			
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Sampler Name:	F	ax #:					9		+															
FOR LAB USE ONLY			PR	ESEF	₹V.	SAMPLI	NG	. 2	×	17														
Lab I.D.	Sample I.	D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	SOIL	OIL	SLUDGE OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chlor	BTE	TPH								
H903594	SP12 @ 1'		2	#	0 5	> 0		3) (٩		7	10-18-19	1017/00/2015	~	-	-								
57	SP12 @ 2'		1	ī		1				1		10-18-19		T		1								
51 52 53	SP12 @ 3'		1	V		1	1			1		10-18-19	1:15	1	V	4								
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analyses. All claims includ service. In no event shall of affiliates or successors aris	and Damages. Cardinal's liability and cli- ling those for negligence and any other Cardinal be liable for incidental or conses sing out of or related to the performance	cause whatsoever shall be equental damages, including of services hereunder by	deeme g witho Cardina	d waiv ut limit II, rega	ed unles ation, bu rdless of	s made i siness ir whether	in writing	and re	s of use	or los	s of p	offits incurred by	client, its subsid	liaries, vise.	ble	es [No	Add'l	Phone	:#:				
Relinquished By: Date: 21-10 Received By: Time 2: 00 AM Relinquished By: Date: 10-21-10 Received By:											2	2	Fax Resu REMARK	ult:	□ Y		No		Fax #:					
July Long Times to 3000 Jamora										Makak														
	Delivered By: (Circle One) -3.42 #97 Sample Conc.										ECK (Init	(ED BY: tials)												
Sampler - UPS	ampler - UPS - Bus - Other: Corrected - 3.0€ □ No □ No																							

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476