



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

DELINEATION/REMEDATION WORKPLAN

OXY – CE LAMUNYON 1 CTB (Leak Date: 10/17/18)

1RP-5263

This delineation workplan and remediation proposal addresses the releases associated with 1RP-5263.

The following information includes:

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

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

OXY will excavate the spill area as depicted on the following site diagram. The leak area near SP1 and SP8 – SP10 (PURPLE shade on diagram) will be excavated to a depth of 1 foot. The leak area near SP2 – SP5 (YELLOW shade on diagram) will be excavated to a depth of 2 feet. The leak area near SP6 and SP7 (BLUE shade on diagram) will be excavated to a depth of 5 feet.

Bottom and sidewall confirmation samples will be collected every 75 feet. The estimated amount of soil to be excavated is 506 cubic yards. The remediation will be completed within 90 days of approval.

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.

Form C-141

Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5263
Facility ID	
Application ID	

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

What is the shallowest depth to groundwater beneath the area affected by the release?	116 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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


Form C-141

Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nOY1831238090
District RP	1RP-5263
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Wade Dittrich Title: Environmental Coordinator
Signature:  Date: 2-10-2020
email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: Cristina Eads Date: 03/20/2020

Form C-141

Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nOY1831238090
District RP	1RP-5263
Facility ID	
Application ID	

Remediation Plan


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

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

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Wade Dittrich Title: Environmental Coordinator
Signature:  Date: 2-16-2020
email: wade_dittrich@oxy.com Telephone: (575) 390-2828

OCD Only

Received by: Cristina Eads Date: 03/20/2020

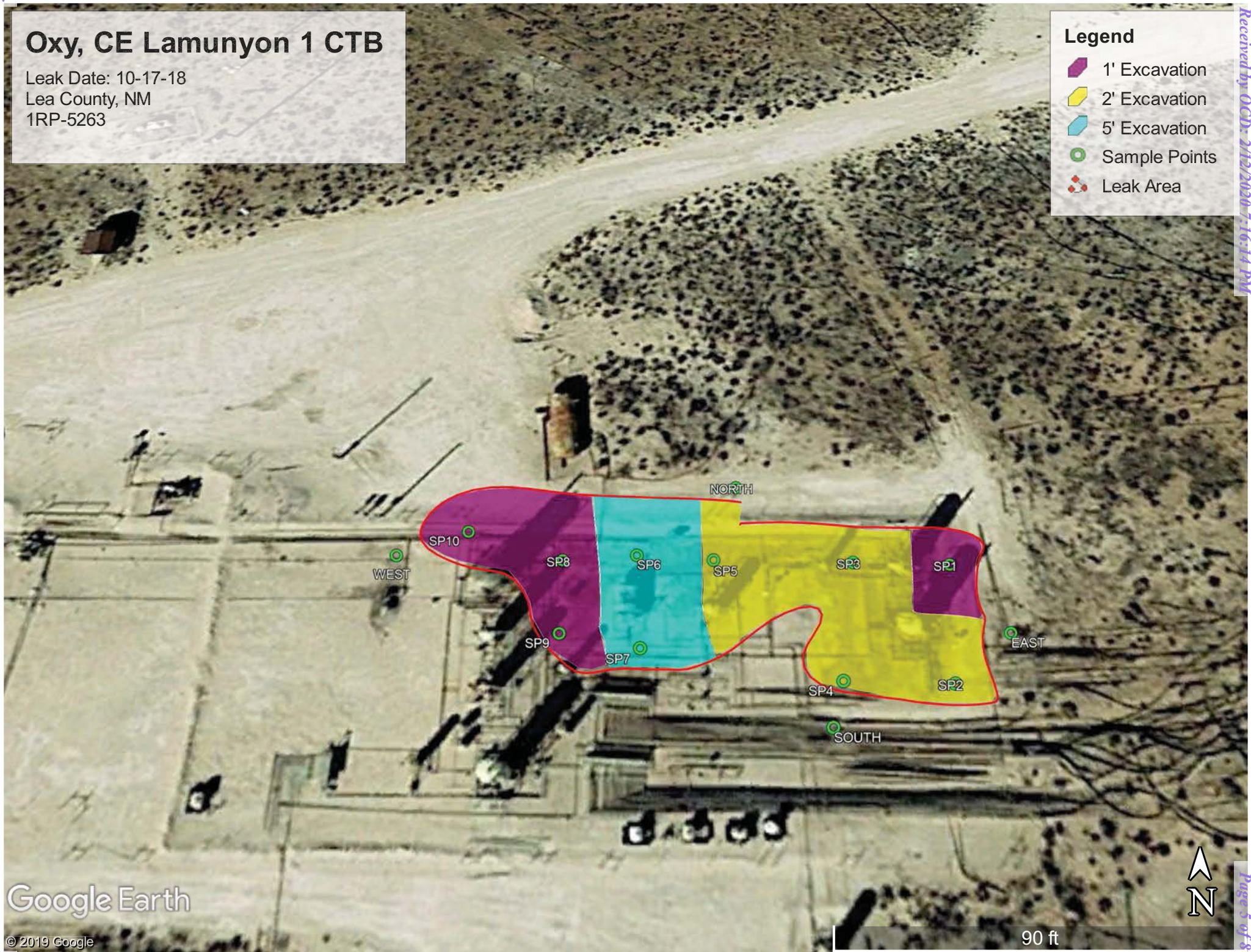
☐ Approved ☐ Approved with Attached Conditions of Approval ☒ Denied ☐ Deferral Approved

Signature:  Date: 03/20/2020

Oxy, CE Lamunyon 1 CTB

Leak Date: 10-17-18
Lea County, NM
1RP-5263

- Legend**
- 1' Excavation
 - 2' Excavation
 - 5' Excavation
 - Sample Points
 - Leak Area



Google Earth

Oxy, CE Lamunyon 1 CTB

Sample points

SP1, N 32.27987 W-103.16292

SP2, N 32.27977 W-103.16293

SP3, N 32.27987 W-103.16300

SP4, N 32.27977 W-103.16302

SP5, N 32.27987 W-103.16312

SP6, N 32.27987 W-103.16318

SP7, N 32.27980 W-103.16318

SP8, N 32.27987 W-103.16325

SP9, N 32.27981 W-103.16325

SP10, N 32.27989 W-103.16333

NORTH, N 32.27993 W-103.16310

SOUTH, N 32.27974 W-103.16303

EAST, N 32.27981 W-103.16288

WEST, N 32.27987 W-103.16339

The map is a topographic representation of a residential area. It features a grid of streets, with several streets labeled in all caps: DAVIS BTRY, HARRISON BTRY, and various other streets. Contour lines are drawn at 100-foot intervals, with labels such as 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 350, 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430, 435, 440, 445, 450, 455, 460, 465, 470, 475, 480, 485, 490, 495, 500, 505, 510, 515, 520, 525, 530, 535, 540, 545, 550, 555, 560, 565, 570, 575, 580, 585, 590, 595, 600, 605, 610, 615, 620, 625, 630, 635, 640, 645, 650, 655, 660, 665, 670, 675, 680, 685, 690, 695, 700, 705, 710, 715, 720, 725, 730, 735, 740, 745, 750, 755, 760, 765, 770, 775, 780, 785, 790, 795, 800, 805, 810, 815, 820, 825, 830, 835, 840, 845, 850, 855, 860, 865, 870, 875, 880, 885, 890, 895, 900, 905, 910, 915, 920, 925, 930, 935, 940, 945, 950, 955, 960, 965, 970, 975, 980, 985, 990, 995, 1000, 1005, 1010, 1015, 1020, 1025, 1030, 1035, 1040, 1045, 1050, 1055, 1060, 1065, 1070, 1075, 1080, 1085, 1090, 1095, 1100, 1105, 1110, 1115, 1120, 1125, 1130, 1135, 1140, 1145, 1150, 1155, 1160, 1165, 1170, 1175, 1180, 1185, 1190, 1195, 1200, 1205, 1210, 1215, 1220, 1225, 1230, 1235, 1240, 1245, 1250, 1255, 1260, 1265, 1270, 1275, 1280, 1285, 1290, 1295, 1300, 1305, 1310, 1315, 1320, 1325, 1330, 1335, 1340, 1345, 1350, 1355, 1360, 1365, 1370, 1375, 1380, 1385, 1390, 1395, 1400, 1405, 1410, 1415, 1420, 1425, 1430, 1435, 1440, 1445, 1450, 1455, 1460, 1465, 1470, 1475, 1480, 1485, 1490, 1495, 1500, 1505, 1510, 1515, 1520, 1525, 1530, 1535, 1540, 1545, 1550, 1555, 1560, 1565, 1570, 1575, 1580, 1585, 1590, 1595, 1600, 1605, 1610, 1615, 1620, 1625, 1630, 1635, 1640, 1645, 1650, 1655, 1660, 1665, 1670, 1675, 1680, 1685, 1690, 1695, 1700, 1705, 1710, 1715, 1720, 1725, 1730, 1735, 1740, 1745, 1750, 1755, 1760, 1765, 1770, 1775, 1780, 1785, 1790, 1795, 1800, 1805, 1810, 1815, 1820, 1825, 1830, 1835, 1840, 1845, 1850, 1855, 1860, 1865, 1870, 1875, 1880, 1885, 1890, 1895, 1900, 1905, 1910, 1915, 1920, 1925, 1930, 1935, 1940, 1945, 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060, 2065, 2070, 2075, 2080, 2085, 2090, 2095, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2175, 2180, 2185, 2190, 2195, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2240, 2245, 2250, 2255, 2260, 2265, 2270, 2275, 2280, 2285, 2290, 2295, 2300, 2305, 2310, 2315, 2320, 2325, 2330, 2335, 2340, 2345, 2350, 2355, 2360, 2365, 2370, 2375, 2380, 2385, 2390, 2395, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2475, 2480, 2485, 2490, 2495, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2550, 2555, 2560, 2565, 2570, 2575, 2580, 2585, 2590, 2595, 2600, 2605, 2610, 2615, 2620, 2625, 2630, 2635, 2640, 2645, 2650, 2655, 2660, 2665, 2670, 2675, 2680, 2685, 2690, 2695, 2700, 2705, 2710, 2715, 2720, 2725, 2730, 2735, 2740, 2745, 2750, 2755, 2760, 2765, 2770, 2775, 2780, 2785, 2790, 2795, 2800, 2805, 2810, 2815, 2820, 2825, 2830, 2835, 2840, 2845, 2850, 2855, 2860, 2865, 2870, 2875, 2880, 2885, 2890, 2895, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2940, 2945, 2950, 2955, 2960, 2965, 2970, 2975, 2980, 2985, 2990, 2995, 3000, 3005, 3010, 3015, 3020, 3025, 3030, 3035, 3040, 3045, 3050, 3055, 3060, 3065, 3070, 3075, 3080, 3085, 3090, 3095, 3100, 3105, 3110, 3115, 3120, 3125, 3130, 3135, 3140, 3145, 3150, 3155, 3160, 3165, 3170, 3175, 3180, 3185, 3190, 3195, 3200, 3205, 3210, 3215, 3220, 3225, 3230, 3235, 3240, 3245, 3250, 3255, 3260, 3265, 3270, 3275, 3280, 3285, 3290, 3295, 3300, 3305, 3310, 3315, 3320, 3325, 3330, 3335, 3340, 3345, 3350, 3355, 3360, 3365, 3370, 3375, 3380, 3385, 3390, 3395, 3400, 3405, 3410, 3415, 3420, 3425, 3430, 3435, 3440, 3445, 3450, 3455, 3460, 3465, 3470, 3475, 3480, 3485, 3490, 3495, 3500, 3505, 3510, 3515, 3520, 3525, 3530, 3535



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National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater

Geographic Area:

New Mexico

GO

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- [Please see news on new formats](#)
- UPDATE, 11/2: The USGS continues to make progress on restoring all of its gages. As of 3 p.m. Friday, November 2, less than 3 percent of USGS streamgages are still not transmitting due to an issue with the telemetry system that records and transmits streamgage data. The USGS will continue to work through the weekend to bring the streamgages back online. Read [more](#)**
- [Full News](#) 

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 321617103102901

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 321617103102901 23S.37E.28.133424

Lea County, New Mexico
Latitude 32°16'33", Longitude 103°10'28" NAD27
Land-surface elevation 3,315.40 feet above NGVD29
The depth of the well is 150 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1968-03-01		D	118.36				2		U	
1970-12-16		D	118.14				2		U	
1976-01-14		D	117.91				2		U	
1981-03-25		D	117.52				2		U	
1986-03-20		D	117.20				2		U	
1991-05-16		D	117.05				2		U	
1996-02-22		D	116.85				2		S	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level

Section	Code	Description
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for New Mexico: Water Levels

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

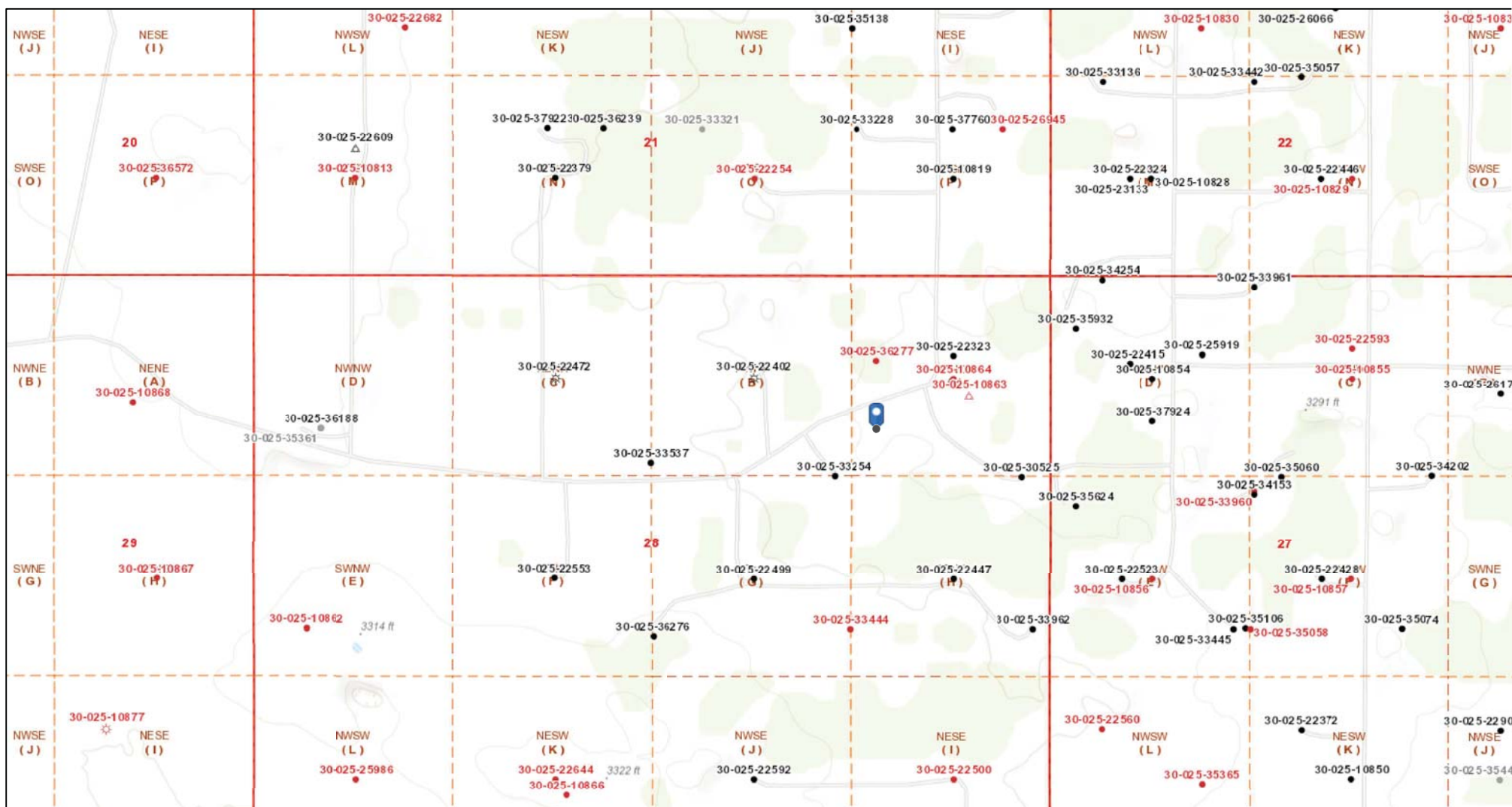


Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2018-11-05 17:40:24 EST

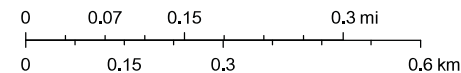
0.53 0.47 nadww01

Oxy, CE Lamunyon 1 CTB, 3,000ft to h2o



2/10/2020 11:34:42 AM


























1:9,028



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI,

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>; New Mexico Oil Conservation Division



Wells - Large Scale									
	CO2, Temporarily Abandoned		Injection, Active		Oil, Cancelled		Salt Water Injection, New		
	Gas, Active		Injection, Cancelled		Oil, New		Salt Water Injection, Plugged		
	Miscellaneous		Injection, New		Oil, Plugged		Salt Water Injection, Temporarily Abandoned		
	CO2, Active		Injection, Plugged		Oil, Temporarily Abandoned		Water, Active		
	CO2, Cancelled		Injection, Temporarily Abandoned		Salt Water Injection, Active		Water, Cancelled		
	CO2, New		Oil, Active		Salt Water Injection, Cancelled		Water, New		
	CO2, Plugged								

Oxy, CE Lamunyon 1 CTB

Leak Date: 10-17-18
Lea County, NM
1RP-5263

BLM CAVE KARST MAP

Legend

-  Leak Area
-  Low Potential



National Flood Hazard Layer FIRMette



32°17'2.78"N



Legend

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

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



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **11/5/2018 at 5:48:23 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

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

0 250 500 1,000 1,500 2,000 Feet 1:6,000

32°16'32.36"N

103°9'28.43"W

Laboratory Analytical Results Summary
CE Lamunyon 1 CTB (10/17/18)

		Sample ID	SP1 @ SURFACE	SP1 @ 1'	SP1 @ 2'	SP1 @ 3'	SP1 @ 4'	SP1 @ 5'
Analyte	Method	Date	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<1.00	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		1.62	0.084	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		8.27	0.302	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		19	0.811	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		28.8	1.2	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		<16.0	32	16	32	32	32
GRO	TPH 8015M		1290	17.1	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		13100	109	27.5	21.7	<10.0	<10.0
EXT DRO	TPH 8015M		1740	45.1	<10.0	<10.0	<10.0	<10.0

		Sample ID	SP2 @ SURFACE	SP2 @ 1'	SP2 @ 2'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'	SP2 @ 6'	SP2 @ 7'	SP2 @ 8'
Analyte	Method	Date	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	1/6/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.200	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		3.09	0.817	<0.050	0.107	0.152	0.427	0.233	0.092	<0.050
Ethylbenzene	BTEX 8021B		12	2.29	0.186	0.256	0.267	1	0.427	0.261	<0.050
Total Xylenes	BTEX 8021B		32.4	6.79	0.725	0.855	0.75	3.03	1.37	0.851	<0.150
Total BTEX	BTEX 8021B		47.5	9.9	0.911	1.22	1.17	4.46	2.03	1.2	<0.300
Chloride	SM4500Cl-B		32	1640	4080	3160	11500	10000	12300	3280	16.0
GRO	TPH 8015M		1160	237	17.6	14.7	10.3	38.8	14	16.3	<10.0
DRO	TPH 8015M		12300	2350	189	83.9	104	379	152	81.9	10.1
EXT DRO	TPH 8015M		1760	520	13	<10.0	10.5	64.2	19	<10.0	<10.0

		Sample ID	SP3 @ SURFACE	SP3 @ 1'	SP3 @ 2'	SP3 @ 3'	SP3 @ 4'
Analyte	Method	Date	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		8.89	0.394	0.269	<0.050	0.155
Ethylbenzene	BTEX 8021B		18.6	0.808	0.487	<0.050	0.292
Total Xylenes	BTEX 8021B		53.6	2.46	1.43	<0.150	1.02
Total BTEX	BTEX 8021B		81	3.67	2.18	<0.300	1.47
Chloride	SM4500Cl-B		128	112	32	32	48
GRO	TPH 8015M		2090	56.9	16.3	<10.0	17.5
DRO	TPH 8015M		17500	1070	512	12.9	575
EXT DRO	TPH 8015M		2620	453	255	<10.0	210

		Sample ID	SP4 @ SURFACE	SP4 @ 1'	SP4 @ 2'	SP4 @ 3'	SP4 @ 4'
Analyte	Method	Date	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<1.00	<0.500	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		14.8	9.54	<0.050	0.078	<0.050
Ethylbenzene	BTEX 8021B		24.4	26.5	0.089	0.388	<0.050
Total Xylenes	BTEX 8021B		67.9	78.6	0.318	1.53	<0.150
Total BTEX	BTEX 8021B		107	115	0.407	2	<0.300
Chloride	SM4500Cl-B		160	48	32	16	64
GRO	TPH 8015M		2560	2660	<10.0	21.7	<10.0
DRO	TPH 8015M		23300	14200	77.9	162	23.4
EXT DRO	TPH 8015M		3290	2110	<10.0	11.8	<10.0

Laboratory Analytical Results Summary
CE Lamunyon 1 CTB (10/17/18)

		Sample ID	SP5 @ SURFACE	SP5 @ 1'	SP5 @ 2'	SP5 @ 3'	SP5 @ 4'	SP5 @ 5'
Analyte	Method	Date	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/2/18
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		5.66	1.38	<0.050	0.101	0.415	0.318
Ethylbenzene	BTEX 8021B		12.7	8.39	1.06	0.938	0.969	0.861
Total Xylenes	BTEX 8021B		37.6	20.5	1.79	2.34	2.95	2.52
Total BTEX	BTEX 8021B		56	30.2	2.85	3.38	4.33	3.7
Chloride	SM4500Cl-B		16	64	80	80	48	96
GRO	TPH 8015M		1090	385	30.9	56.3	38.5	29.8
DRO	TPH 8015M		11500	1980	465	367	287	211
EXT DRO	TPH 8015M		1610	326	196	65.2	65.8	38

		Sample ID	SP6 @ SURFACE	SP6 @ 1'	SP6 @ 2'	SP6 @ 3'	SP6 @ 4'	SP6 @ 5'	SP6 @ 6'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18	11/2/18	1/6/20	1/6/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.500	<0.050	<0.500	0.532	<0.500	<0.050	<0.050
Toluene	BTEX 8021B		5.74	0.237	5.12	6.89	13.1	<0.050	<0.050
Ethylbenzene	BTEX 8021B		15	0.474	15.5	19.7	22.8	<0.050	<0.050
Total Xylenes	BTEX 8021B		44.7	1.58	39.4	47.3	49.5	<0.150	<0.150
Total BTEX	BTEX 8021B		65.5	2.29	60.1	74.4	85.4	<0.300	<0.300
Chloride	SM4500Cl-B		32	32	32	32	48	16.0	16.0
GRO	TPH 8015M		1550	17.3	979	1480	778	<10.0	<10.0
DRO	TPH 8015M		11800	143	5960	7440	2450	200	<10.0
EXT DRO	TPH 8015M		1550	90.6	924	1170	438	29.8	<10.0

		Sample ID	SP7 @ SURFACE	SP7 @ 1'	SP7 @ 2'	SP7 @ 3'	SP7 @ 4'	SP7 @ 5'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18	11/2/18	1/6/20
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.200	<0.050
Toluene	BTEX 8021B		0.255	0.26	0.095	0.181	6.27	<0.050
Ethylbenzene	BTEX 8021B		0.494	0.521	0.099	0.25	14.6	<0.050
Total Xylenes	BTEX 8021B		1.49	1.59	0.266	0.585	32.4	<0.150
Total BTEX	BTEX 8021B		2.24	2.37	0.46	1.02	53.2	<0.300
Chloride	SM4500Cl-B		16	48	<16.0	32	32	<16.0
GRO	TPH 8015M		11.9	15.5	<10.0	30	662	<10.0
DRO	TPH 8015M		714	145	1980	2800	2640	48.5
EXT DRO	TPH 8015M		190	67.6	899	734	361	<10.1

		Sample ID	SP8 @ SURFACE	SP8 @ 1'	SP8 @ 2'	SP8 @ 3'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.4	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		0.489	0.081	<0.050	<0.050
Total Xylenes	BTEX 8021B		1.33	0.291	<0.150	<0.150
Total BTEX	BTEX 8021B		2.22	0.372	<0.300	<0.300
Chloride	SM4500Cl-B		48	<16.0	64	<16.0
GRO	TPH 8015M		19.7	<10.0	<10.0	<10.0
DRO	TPH 8015M		4890	52.8	<10.0	<10.0
EXT DRO	TPH 8015M		898	12	<10.0	<10.0

Laboratory Analytical Results Summary
CE Lamunyon 1 CTB (10/17/18)

		Sample ID	SP9 @ SURFACE	SP9 @ 1'	SP9 @ 2'	SP9 @ 3'	SP9 @ 4'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18	11/2/18
			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		0.121	0.226	0.156	0.113	0.138
Ethylbenzene	BTEX 8021B		0.286	0.288	0.235	0.127	0.218
Total Xylenes	BTEX 8021B		0.924	0.783	0.622	0.351	0.565
Total BTEX	BTEX 8021B		1.33	1.3	1.01	0.591	0.921
Chloride	SM4500Cl-B		32	32	32	48	32
GRO	TPH 8015M		13.4	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		2550	251	290	207	137
EXT DRO	TPH 8015M		519	149	140	77.7	51.4

		Sample ID	SP10 @ SURFACE	SP10 @ 1'	SP10 @ 2'
Analyte	Method	Date	11/2/18	11/2/18	11/2/18
			mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.075	0.125	<0.050
Ethylbenzene	BTEX 8021B		0.179	0.239	<0.050
Total Xylenes	BTEX 8021B		0.504	0.723	<0.150
Total BTEX	BTEX 8021B		0.759	1.09	<0.300
Chloride	SM4500Cl-B		<16.0	32	32
GRO	TPH 8015M		11.1	14.9	<10.0
DRO	TPH 8015M		158	52	<10.0
EXT DRO	TPH 8015M		92	29.1	<10.0

		Sample ID	NORTH @ SURFACE	EAST @ SURFACE	WEST @ SURFACE	SOUTH @ SURFACE
Analyte	Method	Date	11/2/18	11/2/18	11/2/18	11/2/18
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		32	48	32	48
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0

Laboratory Analytical Results Summary
Oxy, CE Lamunyon 10-17-18

		Sample ID	SP2 @ 8'	SP6 @ 5'	SP6 @ 6'	SP7 @ 5'
Analyte	Method	Date	1/6/20	1/6/20	1/6/20	1/6/20
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		16.0	16.0	16.0	<16.0
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		10.1	200	<10.0	48.5
EXT DRO	TPH 8015M		<10.0	29.8	<10.0	<10.1



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November 14, 2018

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: CE LAMUNYON 1 CTB

Enclosed are the results of analyses for samples received by the laboratory on 11/07/18 15:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	11/07/2018	Sampling Date:	11/01/2018
Reported:	11/14/2018	Sampling Type:	Soil
Project Name:	CE LAMUNYON 1 CTB	Sampling Condition:	Cool & Intact
Project Number:	(10/17/18)	Sample Received By:	Tamara Oldaker
Project Location:	OXY - LEA CO NM		

Sample ID: SP 1 @ SURFACE (H803218-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	1.62	1.00	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	8.27	1.00	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	19.0	3.00	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTX	28.8	6.00	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/09/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	1290	50.0	11/09/2018	ND	179	89.4	200	1.94		
DRO >C10-C28*	13100	50.0	11/09/2018	ND	206	103	200	0.103		
EXT DRO >C28-C36	1740	50.0	11/09/2018	ND						

Surrogate: 1-Chlorooctane 181 % 41-142

Surrogate: 1-Chlorooctadecane 386 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 1' (H803218-02)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	0.084	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	0.302	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	0.811	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	1.20	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 69.8-142

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	11/09/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	17.1	10.0	11/10/2018	ND	179	89.4	200	1.94	
DRO >C10-C28*	109	10.0	11/10/2018	ND	206	103	200	0.103	
EXT DRO >C28-C36	45.1	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 2' (H803218-03)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	<0.050	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	<0.050	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	<0.150	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTX	<0.300	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/09/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/09/2018	ND	179	89.4	200	1.94	
DRO >C10-C28*	27.5	10.0	11/09/2018	ND	206	103	200	0.103	
EXT DRO >C28-C36	<10.0	10.0	11/09/2018	ND					

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 90.9 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 3' (H803218-04)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180		
Toluene*	<0.050	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33		
Ethylbenzene*	<0.050	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34		
Total Xylenes*	<0.150	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30		
Total BTX	<0.300	0.300	11/09/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/09/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/09/2018	ND	179	89.4	200	1.94	
DRO >C10-C28*	21.7	10.0	11/09/2018	ND	206	103	200	0.103	
EXT DRO >C28-C36	<10.0	10.0	11/09/2018	ND					

Surrogate: 1-Chlorooctane 77.5 % 41-142

Surrogate: 1-Chlorooctadecane 79.9 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 4' (H803218-05)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	<0.050	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	<0.050	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	<0.150	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	<0.300	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 69.8-142

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	11/09/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/09/2018	ND	179	89.4	200	1.94	
DRO >C10-C28*	<10.0	10.0	11/09/2018	ND	206	103	200	0.103	
EXT DRO >C28-C36	<10.0	10.0	11/09/2018	ND					

Surrogate: 1-Chlorooctane 81.9 % 41-142

Surrogate: 1-Chlorooctadecane 83.3 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 5' (H803218-06)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	<0.050	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	<0.050	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	<0.150	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEx	<0.300	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/09/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/13/2018	ND	179	89.4	200	1.94	
DRO >C10-C28*	<10.0	10.0	11/13/2018	ND	206	103	200	0.103	
EXT DRO >C28-C36	<10.0	10.0	11/13/2018	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ SURFACE (H803218-07)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.200	0.200	11/09/2018	ND	2.02	101	2.00	0.180		
Toluene*	3.09	0.200	11/09/2018	ND	1.90	94.8	2.00	2.33		
Ethylbenzene*	12.0	0.200	11/09/2018	ND	1.83	91.5	2.00	2.34		
Total Xylenes*	32.4	0.600	11/09/2018	ND	5.77	96.2	6.00	2.30		
Total BTX	47.5	1.20	11/09/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 69.8-142

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	11/09/2018	ND	432	108	400	3.77		

TPH 8015M	mg/kg	Analyzed By: MS						S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1160	50.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	12300	50.0	11/10/2018	ND	214	107	200	3.40	QM-07
EXT DRO >C28-C36	1760	50.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 170 % 41-142

Surrogate: 1-Chlorooctadecane 388 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 1' (H803218-08)

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	0.817	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	2.29	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	6.79	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	9.90	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1640	16.0	11/09/2018	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	237	50.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	2350	50.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	520	50.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 153 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 2' (H803218-09)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	<0.050	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	0.186	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	0.725	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTX	0.911	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	11/09/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	17.6	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	189	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	13.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 92.4 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 3' (H803218-10)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	0.107	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	0.256	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	0.855	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	1.22	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3160	16.0	11/09/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	14.7	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	83.9	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 91.4 % 41-142

Surrogate: 1-Chlorooctadecane 95.7 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 4' (H803218-11)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	0.152	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	0.267	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	0.750	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	1.17	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.3 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	11500	16.0	11/09/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	10.3	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	104	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	10.5	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 90.2 % 37.6-147

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Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 5' (H803218-12)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180		
Toluene*	0.427	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33		
Ethylbenzene*	1.00	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34		
Total Xylenes*	3.03	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30		
Total BTX	4.46	0.300	11/09/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	11/09/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	38.8	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	379	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	64.2	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 94.7 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 6' (H803218-13)

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	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	0.233	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	0.427	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	1.37	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	2.03	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12300	16.0	11/10/2018	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	14.0	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	152	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	19.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 7' (H803218-14)

BTEx 8021B		mg/kg	Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180		
Toluene*	0.092	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33		
Ethylbenzene*	0.261	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34		
Total Xylenes*	0.851	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30		
Total BTEX	1.20	0.300	11/09/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3280	16.0	11/10/2018	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	16.3	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	81.9	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 94.4 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ SURFACE (H803218-15)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	8.89	0.500	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	18.6	0.500	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	53.6	1.50	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTEX	81.0	3.00	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	11/10/2018	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

Surrogate: 1-Chlorooctane 217 % 41-142

Surrogate: 1-Chlorooctadecane 504 % 37.6-147

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Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 1' (H803218-16)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2018	ND	2.02	101	2.00	0.180	
Toluene*	0.394	0.050	11/09/2018	ND	1.90	94.8	2.00	2.33	
Ethylbenzene*	0.808	0.050	11/09/2018	ND	1.83	91.5	2.00	2.34	
Total Xylenes*	2.46	0.150	11/09/2018	ND	5.77	96.2	6.00	2.30	
Total BTX	3.67	0.300	11/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	56.9	50.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	1070	50.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	453	50.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 133 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 2' (H803218-17)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/11/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.269	0.050	11/11/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.487	0.050	11/11/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	1.43	0.150	11/11/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	2.18	0.300	11/11/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	16.3	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	512	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	255	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 119 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 3' (H803218-18)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26		
Toluene*	<0.050	0.050	11/10/2018	ND	2.06	103	2.00	2.25		
Ethylbenzene*	<0.050	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13		
Total Xylenes*	<0.150	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21		
Total BTX	<0.300	0.300	11/10/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.1 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	12.9	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 89.5 % 41-142

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147

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Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 4' (H803218-19)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.155	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.292	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	1.02	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	1.47	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.6 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/10/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	17.5	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	575	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	210	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 85.5 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ SURFACE (H803218-20)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	14.8	1.00	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	24.4	1.00	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	67.9	3.00	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	107	6.00	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	11/10/2018	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-06					

Surrogate: 1-Chlorooctane 146 % 41-142

Surrogate: 1-Chlorooctadecane 644 % 37.6-147

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Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 1' (H803218-21)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/11/2018	ND	2.04	102	2.00	1.26	
Toluene*	9.54	0.500	11/11/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	26.5	0.500	11/11/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	78.6	1.50	11/11/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	115	3.00	11/11/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/10/2018	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2660	100	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	14200	100	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	2110	100	11/10/2018	ND					

Surrogate: 1-Chlorooctane 149 % 41-142

Surrogate: 1-Chlorooctadecane 393 % 37.6-147

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 2' (H803218-22)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/11/2018	ND	2.04	102	2.00	1.26	
Toluene*	<0.050	0.050	11/11/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.089	0.050	11/11/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	0.318	0.150	11/11/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	0.407	0.300	11/11/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	77.9	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 3' (H803218-23)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/11/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.078	0.050	11/11/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.388	0.050	11/11/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	1.53	0.150	11/11/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	2.00	0.300	11/11/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	21.7	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	162	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	11.8	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 91.7 % 41-142

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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 4' (H803218-24)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	<0.050	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	<0.050	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	<0.150	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	<0.300	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	23.4	10.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 86.2 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ SURFACE (H803218-25)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	5.66	0.500	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	12.7	0.500	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	37.6	1.50	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	56.0	3.00	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/10/2018	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-06					

Surrogate: 1-Chlorooctane		152 %	41-142							
Surrogate: 1-Chlorooctadecane		378 %	37.6-147							

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 1' (H803218-26)

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	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	1.38	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	8.39	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	20.5	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	30.2	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	11/10/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	385	50.0	11/10/2018	ND	192	95.8	200	4.38	
DRO >C10-C28*	1980	50.0	11/10/2018	ND	214	107	200	3.40	
EXT DRO >C28-C36	326	50.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 133 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 2' (H803218-27)

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	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	<0.050	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	1.06	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	1.79	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	2.85	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/10/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	30.9	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	465	10.0	11/10/2018	ND	206	103	200	2.22	QR-03
EXT DRO >C28-C36	196	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 95.3 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 3' (H803218-28)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.101	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.938	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	2.34	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	3.38	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/10/2018	ND	400	100	400	3.92		

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	56.3	50.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	367	50.0	11/10/2018	ND	205	103	200	0.219	QR-03
EXT DRO >C28-C36	65.2	50.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 88.2 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/01/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 4' (H803218-29)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.415	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.969	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	2.95	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	4.33	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	38.5	10.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	287	10.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	65.8	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 90.5 % 41-142

Surrogate: 1-Chlorooctadecane 95.0 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 5' (H803218-30)

BTX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.318	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.861	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	2.52	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTX	3.70	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	11/10/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	29.8	10.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	211	10.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	38.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 88.8 % 41-142

Surrogate: 1-Chlorooctadecane 89.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ SURFACE (H803218-31)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/11/2018	ND	2.04	102	2.00	1.26	
Toluene*	5.74	0.500	11/11/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	15.0	0.500	11/11/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	44.7	1.50	11/11/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	65.5	3.00	11/11/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

Surrogate: 1-Chlorooctane		180 %	41-142							
Surrogate: 1-Chlorooctadecane		362 %	37.6-147							

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 1' (H803218-32)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.237	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.474	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	1.58	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	2.29	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	17.3	10.0	11/11/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	143	10.0	11/11/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	90.6	10.0	11/11/2018	ND					

Surrogate: 1-Chlorooctane 86.2 % 41-142

Surrogate: 1-Chlorooctadecane 97.0 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 2' (H803218-33)

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/11/2018	ND	2.04	102	2.00	1.26	
Toluene*	5.12	0.500	11/11/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	15.5	0.500	11/11/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	39.4	1.50	11/11/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	60.1	3.00	11/11/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92	

TPH 8015M	mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	979	100	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	5960	100	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	924	100	11/10/2018	ND					

Surrogate: 1-Chlorooctane 149 % 41-142

Surrogate: 1-Chlorooctadecane 247 % 37.6-147

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 3' (H803218-34)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.532	0.500	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	6.89	0.500	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	19.7	0.500	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	47.3	1.50	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	74.4	3.00	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.8-142

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	11/10/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1480	100	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	7440	100	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	1170	100	11/10/2018	ND					

Surrogate: 1-Chlorooctane 175 % 41-142

Surrogate: 1-Chlorooctadecane 282 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 4' (H803218-35)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	13.1	0.500	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	22.8	0.500	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	49.5	1.50	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	85.4	3.00	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/10/2018	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-04					

Surrogate: 1-Chlorooctane		125 %	41-142							
Surrogate: 1-Chlorooctadecane		159 %	37.6-147							

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Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ SURFACE (H803218-36)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/10/2018	ND	2.04	102	2.00	1.26	
Toluene*	0.255	0.050	11/10/2018	ND	2.06	103	2.00	2.25	
Ethylbenzene*	0.494	0.050	11/10/2018	ND	1.87	93.6	2.00	1.13	
Total Xylenes*	1.49	0.150	11/10/2018	ND	5.93	98.8	6.00	1.21	
Total BTEX	2.24	0.300	11/10/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	11.9	10.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	714	10.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	190	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 83.7 % 41-142

Surrogate: 1-Chlorooctadecane 118 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 1' (H803218-37)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.260	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.521	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	1.59	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEx	2.37	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	15.5	10.0	11/11/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	145	10.0	11/11/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	67.6	10.0	11/11/2018	ND					

Surrogate: 1-Chlorooctane 86.8 % 41-142

Surrogate: 1-Chlorooctadecane 97.1 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 2' (H803218-38)

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	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.095	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.099	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.266	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEX	0.460	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/11/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	1980	10.0	11/11/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	899	10.0	11/11/2018	ND					

Surrogate: 1-Chlorooctane 87.6 % 41-142

Surrogate: 1-Chlorooctadecane 177 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 3' (H803218-39)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.181	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.250	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.585	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	1.02	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-04					

Surrogate: 1-Chlorooctane 97.3 % 41-142

Surrogate: 1-Chlorooctadecane 169 % 37.6-147

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Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 4' (H803218-40)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	6.27	0.200	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	14.6	0.200	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	32.4	0.600	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	53.2	1.20	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 131 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-06					

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	662	50.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	2640	50.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	361	50.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 164 % 37.6-147

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ SURFACE (H803218-41)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.400	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.489	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	1.33	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEx	2.22	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92	

TPH 8015M	mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	19.7	10.0	11/12/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	4890	10.0	11/12/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	898	10.0	11/12/2018	ND					

Surrogate: 1-Chlorooctane 87.7 % 41-142

Surrogate: 1-Chlorooctadecane 245 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 1' (H803218-42)

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	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.081	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.291	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEx	0.372	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	52.8	10.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	12.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 84.2 % 41-142

Surrogate: 1-Chlorooctadecane 89.9 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 2' (H803218-43)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	<0.300	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.4 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 3' (H803218-44)

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	11/12/2018	ND	1.95	97.5	2.00	0.433		
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42		
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601		
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21		
Total BTEx	<0.300	0.300	11/12/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 92.1 % 41-142

Surrogate: 1-Chlorooctadecane 95.7 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ SURFACE (H803218-45)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.121	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.286	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.924	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	1.33	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	3.92	
TPH 8015M	mg/kg		Analyzed By: MS						S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	13.4	10.0	11/12/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	2550	10.0	11/12/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	519	10.0	11/12/2018	ND					

Surrogate: 1-Chlorooctane 80.0 % 41-142

Surrogate: 1-Chlorooctadecane 170 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ 1' (H803218-46)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.226	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.288	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.783	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	1.30	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/12/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	251	10.0	11/12/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	149	10.0	11/12/2018	ND					

Surrogate: 1-Chlorooctane 81.9 % 41-142

Surrogate: 1-Chlorooctadecane 97.1 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ 2' (H803218-47)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.156	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.235	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.622	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEX	1.01	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/12/2018	ND	187	93.5	200	1.54	
DRO >C10-C28*	290	10.0	11/12/2018	ND	205	103	200	0.219	
EXT DRO >C28-C36	140	10.0	11/12/2018	ND					

Surrogate: 1-Chlorooctane 83.9 % 41-142

Surrogate: 1-Chlorooctadecane 98.3 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ 3' (H803218-48)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.113	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.127	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.351	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	0.591	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	207	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	77.7	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 95.1 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ 4' (H803218-49)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.138	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.218	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.565	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEX	0.921	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	137	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	51.4	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 93.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 10 @ SURFACE (H803218-50)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.075	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.179	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.504	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	0.759	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	11.1	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	158	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	92.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 94.9 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 10 @ 1' (H803218-51)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	0.125	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	0.239	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	0.723	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	1.09	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	14.9	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	52.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	29.1	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 105 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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Analytical Results For:

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

Received: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 10 @ 2' (H803218-52)

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	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTEX	<0.300	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 93.5 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: NORTH @ SURFACE (H803218-53)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433		
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42		
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601		
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21		
Total BTX	<0.300	0.300	11/12/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.8-142

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 95.3 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST @ SURFACE (H803218-54)

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	11/12/2018	ND	1.95	97.5	2.00	0.433		
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42		
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601		
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21		
Total BTEx	<0.300	0.300	11/12/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 98.7 % 41-142

Surrogate: 1-Chlorooctadecane 92.5 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST @ SURFACE (H803218-55)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433	
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42	
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601	
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21	
Total BTX	<0.300	0.300	11/12/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.8-142

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	11/12/2018	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 97.1 % 41-142

Surrogate: 1-Chlorooctadecane 97.5 % 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: 11/07/2018
 Reported: 11/14/2018
 Project Name: CE LAMUNYON 1 CTB
 Project Number: (10/17/18)
 Project Location: OXY - LEA CO NM

Sampling Date: 11/02/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SOUTH @ SURFACE (H803218-56)

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/12/2018	ND	1.95	97.5	2.00	0.433		
Toluene*	<0.050	0.050	11/12/2018	ND	1.90	95.1	2.00	1.42		
Ethylbenzene*	<0.050	0.050	11/12/2018	ND	1.84	91.8	2.00	0.601		
Total Xylenes*	<0.150	0.150	11/12/2018	ND	5.90	98.4	6.00	1.21		
Total BTEx	<0.300	0.300	11/12/2018	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.8-142

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/12/2018	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/10/2018	ND	194	96.9	200	1.01	
DRO >C10-C28*	<10.0	10.0	11/10/2018	ND	206	103	200	2.22	
EXT DRO >C28-C36	<10.0	10.0	11/10/2018	ND					

Surrogate: 1-Chlorooctane 97.7 % 41-142

Surrogate: 1-Chlorooctadecane 94.5 % 37.6-147

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1086

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3086

Company Name: BBC International, Inc.				BILL TO												ANALYSIS REQUEST															
Project Manager: Cliff Brunson				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CI</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH+EXT</div> </div>																							
Address: P.O. Box 805				Company: <i>Oxy</i>																											
City: Hobbs State: NM Zip: 88241				Attn: <i>Stitch</i>																											
Phone #: 575-397-6388 Fax #: 575-397-0397				Address:																											
Project #: Project Owner: Oxy				City:																											
Project Name: CE Lamunyon 1 CTB (10/17/18)				State: Zip:																											
Project Location: Lea County, NM				Phone #:																											
Sampler Name: Jeff Ornelas				Fax #:																											
FOR LAB USE ONLY				MATRIX				PRESERV.				SAMPLING																			
Lab I.D.	Sample I.D.	(GRAB OR COMPO.) # CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME																		
<i>H803218</i>																															
<i>21</i>	SP4 @ 1'	<i>6</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			11/1/18	1:55 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>22</i>	SP4 @ 2'											11/1/18	2:15 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>23</i>	SP4 @ 3'											11/1/18	2:25 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>24</i>	SP4 @ 4'											11/1/18	2:45 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>25</i>	SP5 @ SURFACE											11/1/18	2:55 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>26</i>	SP5 @ 1'											11/1/18	3:08 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>27</i>	SP5 @ 2'											11/1/18	3:15 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>28</i>	SP5 @ 3'											11/1/18	3:29 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>29</i>	SP5 @ 4'											11/1/18	3:33 PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
<i>30</i>	SP5 @ 5'											11/2/18	9:01 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															

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Relinquished By: <i>Jeff Ornelas</i>	Date: <i>11/2/18</i>	Received By: <i>Kim B...</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <i>5:30pm</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Kim B...</i>	Date: <i>11-2-18</i>	Received By: <i>Lamara...</i>	REMARKS:	
	Time: <i>15:40</i>			
Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)		
Sampler - UPS - Bus - Other: <i>-2.50 #97</i>	Cool <input type="checkbox"/> Intact <input type="checkbox"/>			
	Yes <input type="checkbox"/> No <input type="checkbox"/>			

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



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4046

Company Name: BBC International, Inc.				BILL TO				ANALYSIS REQUEST																													
Project Manager: Cliff Brunson				P.O. #: Oxy																																	
Address: P.O. Box 805				Company: D. H. H. H.																																	
City: Hobbs		State: NM		Zip: 88241		Attn:																															
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:		City:																															
Project #:		Project Owner: Oxy		State:		Zip:																															
Project Name: CE Lamunyon 1 CTB (10/17/18)				Phone #:																																	
Project Location: Lea County, NM				Fax #:																																	
Sampler Name: Jeff Ornelas																																					
FOR LAB USE ONLY																																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING																									
				GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME													
H803218				G		1																11/2/18		9:11 AM		BTEX											
31		SP6 @ SURFACE																				11/2/18		9:15 AM		CI											
32		SP6 @ 1'																				11/2/18		9:30 AM		TPH A/T											
33		SP6 @ 2'																				11/2/18		9:42 AM													
34		SP6 @ 3'																				11/2/18		9:52 AM													
35		SP6 @ 4'																				11/2/18		10:15 AM													
36		SP7 @ SURFACE																				11/2/18		10:22 AM													
37		SP7 @ 1'																				11/2/18		10:30 AM													
38		SP7 @ 2'																				11/2/18		10:41 AM													
39		SP7 @ 3'																				11/2/18		10:58 AM													
40		SP7 @ 4'																				11/2/18		10:58 AM													

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Relinquished By: Jeff Ornelas		Date: 11/2/18		Received By: [Signature]		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By: [Signature]		Date: 11/2/18		Received By: [Signature]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Delivered By: (Circle One)		Time: 5:30 PM		Time: 15:40		REMARKS:			
Sampler - UPS - Bus - Other: - 2.9 c #87		Sample Condition		CHECKED BY: (Initials)					
		Cool Intact							
		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No					

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

5084

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Relinquished By: <i>[Signature]</i>	Date: 11-2-18 Time: 5:30pm	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>[Signature]</i>	Date: 11-7-18 Time: 15:40	Received By: <i>[Signature]</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: (Initials) TO.	REMARKS:	

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**CARDINAL LABORATORIES**

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

6086

Company Name: BBC International, Inc.				BILL TO				ANALYSIS REQUEST											
Project Manager: Cliff Brunson				P.O. #:															
Address: P.O. Box 805				Company: <i>Oxy</i>															
City: Hobbs		State: NM Zip: 88241		Attn: <i>Anna</i>															
Phone #: 575-397-6388		Fax #: 575-397-0397		Address:															
Project #:		Project Owner: Oxy		City:															
Project Name: CE Lamunyon 1 CTB (10/17/18)				State: Zip:															
Project Location: Lea County, NM				Phone #:															
Sampler Name: Jeff Ornelas				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME					
<i>H803218</i>																			
<i>51</i>	SP10 @ 1'												11/2/18	1:55 PM	✓	✓			
<i>52</i>	SP10 @ 2'												11/2/18	2:15 PM	✓	✓			
<i>53</i>	NORTH @ SURFACE												11/2/18	2:20 PM	✓	✓			
<i>54</i>	EAST @ SURFACE												11/2/18	2:25 PM	✓	✓			
<i>55</i>	WEST @ SURFACE												11/2/18	2:30 PM	✓	✓			
<i>56</i>	SOUTH @ SURFACE												11/2/18	2:40 PM	✓	✓			
<i>FAO 11/5/18</i>																			

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Relinquished By: <i>Jeff Ornelas</i>	Date: <i>11/2/18</i>	Received By: <i>Anna</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <i>5:30p</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>Anna</i>	Date: <i>11-7-18</i>	Received By: <i>Anna</i>	REMARKS:	
	Time: <i>15:40</i>			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool Intact	(Initials)		
<i>-2.9c #97</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>TO.</i>		

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

January 15, 2020

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: LAMUNYON #1 CTB

Enclosed are the results of analyses for samples received by the laboratory on 01/09/20 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 01/09/2020
 Reported: 01/15/2020
 Project Name: LAMUNYON #1 CTB
 Project Number: (10-17-18)
 Project Location: OXY - EDDY CO NM

Sampling Date: 01/06/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 8' (H000076-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2020	ND	1.99	99.5	2.00	0.488	
Toluene*	<0.050	0.050	01/13/2020	ND	1.95	97.7	2.00	0.624	
Ethylbenzene*	<0.050	0.050	01/13/2020	ND	1.97	98.5	2.00	0.873	
Total Xylenes*	<0.150	0.150	01/13/2020	ND	5.75	95.8	6.00	0.803	
Total BTX	<0.300	0.300	01/13/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	01/10/2020	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	10.1	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane 93.2 % 41-142

Surrogate: 1-Chlorooctadecane 93.3 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 01/09/2020
 Reported: 01/15/2020
 Project Name: LAMUNYON #1 CTB
 Project Number: (10-17-18)
 Project Location: OXY - EDDY CO NM

Sampling Date: 01/06/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 5' (H000076-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2020	ND	1.99	99.5	2.00	0.488	
Toluene*	<0.050	0.050	01/13/2020	ND	1.95	97.7	2.00	0.624	
Ethylbenzene*	<0.050	0.050	01/13/2020	ND	1.97	98.5	2.00	0.873	
Total Xylenes*	<0.150	0.150	01/13/2020	ND	5.75	95.8	6.00	0.803	
Total BTX	<0.300	0.300	01/13/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/10/2020	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	200	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	29.8	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 94.5 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 01/09/2020
 Reported: 01/15/2020
 Project Name: LAMUNYON #1 CTB
 Project Number: (10-17-18)
 Project Location: OXY - EDDY CO NM

Sampling Date: 01/06/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 6' (H000076-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2020	ND	1.99	99.5	2.00	0.488	
Toluene*	<0.050	0.050	01/13/2020	ND	1.95	97.7	2.00	0.624	
Ethylbenzene*	<0.050	0.050	01/13/2020	ND	1.97	98.5	2.00	0.873	
Total Xylenes*	<0.150	0.150	01/13/2020	ND	5.75	95.8	6.00	0.803	
Total BTX	<0.300	0.300	01/13/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/10/2020	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					

Surrogate: 1-Chlorooctane 93.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 01/09/2020
 Reported: 01/15/2020
 Project Name: LAMUNYON #1 CTB
 Project Number: (10-17-18)
 Project Location: OXY - EDDY CO NM

Sampling Date: 01/06/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 5' (H000076-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/13/2020	ND	1.99	99.5	2.00	0.488	
Toluene*	<0.050	0.050	01/13/2020	ND	1.95	97.7	2.00	0.624	
Ethylbenzene*	<0.050	0.050	01/13/2020	ND	1.97	98.5	2.00	0.873	
Total Xylenes*	<0.150	0.150	01/13/2020	ND	5.75	95.8	6.00	0.803	
Total BTX	<0.300	0.300	01/13/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/10/2020	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/13/2020	ND	185	92.5	200	9.10	
DRO >C10-C28*	48.5	10.0	01/13/2020	ND	189	94.7	200	11.6	
EXT DRO >C28-C36	<10.0	10.0	01/13/2020	ND					

Surrogate: 1-Chlorooctane 87.8 % 41-142

Surrogate: 1-Chlorooctadecane 94.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



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