

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BP America Production Co	OGRID: 778	Final
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179	
Contact email: steven.moskal@bpx.com	Incident # (assigned by OCD) NRM2006939989	
Contact mailing address: 1199 Main St., Suite 101, Durango CO, 81301		

Location of Release Source

Latitude: 36.727375° Longitude: -107.737032°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Elliott Gas Com B 001A	Site Type: Natural Gas Production Well Pad
Date Release Discovered: February 17, 2020	API#: 30-045-22339

Unit Letter	Section	Township	Range	County
E	13	T29N	R09W	San Juan

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): 3.8	Volume Recovered (bbls): <u>0 bbls</u>
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Release of condensate and produced water caused from a storage tank integrity failure.

BP discovered a leaking condensate tank on 2/17/2020. Leak was contained to berm, tank was emptied and shut in. At this time, the impacts appear to be confined to the tank footprint and will be further delineated via hollow stem auger during the week of 3/9/2020.

BP will proposed to install a soil vapor extraction system, however, due to the estimated size and extents discovered during soil borings, a dig and haul was selected as the remediation method.

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Steve Moskal to Cory Smith (cell phone – Voicemail) on October 14, 2019 at 2:00 PM	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: _____ Title: _____ Signature: _____ Date: _____ email: _____ Telephone: _____
<u>OCD Only</u> Received by: _____ Date: _____

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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?	<u>>100</u> (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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input 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.

State of New Mexico
Oil Conservation Division

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Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
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Remediation Plan

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

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

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

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

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Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Steve Moskal Title: Environmental Coordinator

Signature: 

Date: 5/28/2020

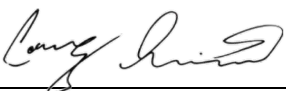
email: steven.moskal@bpx.com

Telephone: (505) 330-9179

OCD Only

Received by: OCD Date: 6/2/2020

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

Closure Approved by: 

Date: 9/28/2020

Printed Name: Cory

Title: Environmental Specialist

BP America
Elliott GC B 1A
(E) Sec 13 – T29N – R9W
San Juan County, New Mexico
API: 30-045-22339
NMOCD Incident: NCS1928833906

Summary Record of Impact Remediation

February 17, 2020 A release of approximately 3.8 barrels of condensate liquid was discovered at the 300 barrel stock tank. The leak was contained to the tank berm and did not travel off the wellpad. The tank was emptied and the well was shut-in.

The New Mexico Oil Conservation Division (NMOCD) site closure standard was determined at 1,000/2,500 ppm TPH and 20,000 ppm chlorides as documented within the approved C-141 submitted by BP on March 5, 2020.

March 13, 2020 Conduct boring investigation with track mounted drill rig to establish vertical and lateral extent of hydrocarbon impacts. Three borings were completed to depths between 25' – 30' below surface grade. Soil samples were collected for laboratory analysis of hydrocarbons and chlorides, with results as follows:

Boring Sampling Test Results
March 13, 2020

Boring ID	Sample Depth	Time	Field OVM (ppm)	BTEX (mg/Kg)	Benzene (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH (GRO +DRO) (mg/Kg)	TPH Total (mg/Kg)	Cl- (mg/Kg)
BH-1	5'	0918	4,788	4,570	28.7	34,700	2,180	ND	36,880	36,880	23.0
BH-1	25'	1002	721	1.53	ND	ND	ND	ND	ND	ND	ND
BH-1	30'	1016	6.7	ND	ND	ND	ND	ND	ND	ND	ND
BH-2	5'	1150	2,461	27.35	ND	326	975	ND	1,301	1,301	27.8
BH-2	25'	1306	82	0.185	ND	ND	ND	ND	ND	ND	ND
BH-3	5'	1413	3,669	221.21	1.21	1,840	2,170	219	4,010	4,229	ND
BH-3	25'	1454	24.3	ND	ND	ND	ND	ND	ND	ND	25.3
Standard:				50	10				1,000	2,500	20,000

Boring logs, laboratory analytical data reports and photographs are attached.

April 17, 2020 Conduct remediation using a backhoe to remove impacts. Excavate 12' x 10' x 10' deep. Soil type was a sandy silt. Conduct closure sampling on the sidewall and base, with results as follows:

Closure Sampling Test Results
April 17, 2020
Excavation Size: 12' x 10' x 10' Deep

Sample ID	Num. Comps	Time	Field OVM (ppm)	BTEX (mg/Kg)	Benzene (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH (GRO +DRO) (mg/Kg)	TPH Total (mg/Kg)	Cl- (mg/Kg)
Base @ 10'	5	1041	2,206	3.14	ND	50.3	83.0	ND	133.3	133.3	ND
N & E Sidewalls	8	1031	3,436	341.8	2.92	2,480	2,900	78.1	5,380	5,458	ND
S & W Sidewalls	8	1036	4,189	130.0	1.08	947	3,210	360	4,157	4,517	26.3
Standard:				50	10				1,000	2,500	20,000

Site figure, laboratory analytical data reports and photographs are attached.

April 21, 2020 Extend remedial excavation to 24' x 24' x 10' deep. Conduct closure sampling on the expanded excavation, with results as follows:

Closure Sampling Test Results
April 21, 2020
Excavation Size: 24' x 24' x 10' Deep

Sample ID	Num. Comps	Time	Field OVM (ppm)	BTEX mg/Kg	Benzene (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH (GRO +DRO) (mg/Kg)	TPH Total (mg/Kg)	Cl- (mg/Kg)
North Base @ 10'	7	1358	148	1.29	ND	ND	482	112	482	594	NA
South Base @ 10'	7	1340	86.4	ND	ND	ND	28.8	ND	28.8	28.8	NA
South Sidewall	5	1343	0.1	ND	ND	ND	ND	ND	ND	ND	NA
West Sidewall	5	1349	2.2	ND	ND	ND	46.8	ND	46.8	46.8	NA
North Sidewall	5	1401	12.8	ND	ND	ND	ND	ND	ND	ND	NA
East Sidewall	5	1404	3.4	ND	ND	ND	ND	ND	ND	ND	NA
Standard:				50	10				1,000	2,500	20,000

Site figure, laboratory analytical data reports and photographs are attached.

April 22, 2020 Receive rush analytical data reports. All sampling areas within site closure standard. Backfill excavation with clean imported soils. The footprint of the excavation is covered with replacement tank and will be reclaimed at a later date.

Boring Investigation

March 13, 2020



BLAGG ENGINEERING, INC.

Boring ID: BH-1 Page: 1 of 1

Field Boring Log

Project ID: ELLIOTT GC B 001AClient: SPXDrilling Contractor: HRLDrilling Equipment: CME-SS TRACEDate Start: 3/13/2020 Date Finish: 3/13/2020 Driller: KP Logged by: JCSTotal Depth: 30' Casing Type/Size: 2" PCL Slot Size: 0.010Comments: AT CENTER OF TANK FOOTPRINT

Depth (Feet)	Sample Time	Sample Type	Field OVM	Well Completion	SAMPLE DESCRIPTION
1	0912	START			Reddish TAN Fine Sand/silt, lite moisture, strong HC odor
2					
3					
4					
5					
6	0918	SS	4,789	Solid Rock	Recover 24" Reddish TAN Fine Sand + silt, lite moisture, strong HC odor, NO STAIN
7					TPH = 36,880 mg/Kg
8					BTEX = 4,570 mg/Kg
9					CL = 23.0 mg/Kg
10					
11	0926	SS	4,684		Recover 24", SAA
12					
13					
14					
15					
16	0933	SS	3,865		Recover 24", 15-16" SAA
17					16-18" Gray clays moist, Lite HC odor
18					
19					
20					
21	0948	SS	1,522	0.010 Screen	Recover 16", Greenish silt stone, Dense, Dry.
22					V. Lite HC odor
23					
24					
25					
26	1002	SS	721		Recover 17", SAA
27					TPH = ND
28					BTEX = 2.60
29					CL = ND
30					
	1016	SS	607		Recover 6", CRUSHED Tan Sandstone, V. V. moist HC odor
					TPH = ND
					BTEX = ND
					CL = ND

CL = ND

BLAGG ENGINEERING, INC.

Boring ID: BH-2Page: 1 of 1

Field Boring Log

Project ID: ELLIOTT GC B 001AClient: BPXDrilling Contractor: HRLDrilling Equipment: CME-SS TRACKDate Start: 3/13/2020 Date Finish: 3/13/2020 Driller: KP Logged by: JCBTotal Depth: 25 Casing Type/Size: 2" PVC Slot Size: 0.010

Comments:

LOCATED ~~9~~ SE OF BH-1

Depth (Feet)	Sample Time	Sample Type	Field OVM	Well Completion	SAMPLE DESCRIPTION
1	1140	START			Silty SAND, lite moisture, minor HC odor.
2					
3					
4					
5	1150				
6		SS	2,461		RECOVER 22", Fine SAND/SILT, Reddish Brown, lite moisture, strong HC odor
7					TPH (DRO+GRO) = 1,301 mg/Kg
8					BTEX = 27.35 mg/Kg
9					Benzene = ND
10	1155				CL = 27.8 mg/Kg
11		SS	7.7		RECOVER 24", SAA, Reduced ODOOR.
12					
13					
14					
15	1205				
16		SS	73.5		RECOVER 20", Gray silty clay, Lately Moist, V. MINOR HC ODOOR
17					
18					
19					
20	1249				
21		SS	177		RECOVER 16", Greenish silt stone, Dry, Dense V-Lite HC ODOOR.
22					
23					
24					
25	1306				
26		SS	82		RECOVER 12", SAA
27					TPH = ND
28					BTEX = 0.185 mg/Kg
29					CL = ND
30					

Boring ID: BH-3

Page: 1 of 1

Project ID: ELLIOTT GC B 001A

Client: BPR

Drilling Contractor: HRL

Drilling Equipment: CME-55 TRACK

Date Start: 3/13/2020 Date Finish: 5/13/2020 Driller: KP Logged by: JCB

Total Depth: 25' Casing Type/Size: 2" PVC Slot Size: .010

Comments:

LOCATED 9' NE OF BH-1

Depth (Feet)	Sample Time	Sample Type	Field OVM	Well Completion	SAMPLE DESCRIPTION
1	1406	SPALT			Silty SAND, tan, lite HC odor
2					
3					
4					
5					
6	1413				
6	1420	SS	3,669		Recover 20", Reddish tan Fine SAND TPH = 4,229 mg/Kg BTEX = 232 mg/Kg Benzene = 1.21 mg/Kg Cl- = ND Strong HC odor, No stain
7					
8					
9					
10					
11	1428				
11	1438	SS	2,998		Recover 22", SAA
12					
13					
14					
15					
16	1428				
16	1438	SS	2,284		Recover 24", GRAY silty clay, lite Moisture moderate HC ODOR, NO stain
17					
18					
19					
20					
21	1438				
21	1454	SS	584		Recover 15", Green silt/clay, Dry, Dense, MINOR HC ODOR
22					
23					
24					
25					
26	1454				
26	1454	SS	24.3		Recover 12", SAA, Lite HC ODOR TPH = ND BTEX = ND Cl- = 25.3 mg/Kg
27					
28					
29					
30					



Analytical Report

Report Summary

Client: BP America Production Co.

Samples Received: 3/13/2020

Job Number: 03143-0424

Work Order: P003081

Project Name/Location: Elliott GC B 001A

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light pink rectangular background.

Date: 3/19/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



BP America Production Co.
PO Box 22024
Tulsa OK, 74121-2024

Project Name: Elliott GC B 001A
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
03/19/20 12:13

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH-1 @ 5'	P003081-01A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.
BH-1 @ 25'	P003081-02A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.
BH-1 @ 30'	P003081-03A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.
BH-2 @ 5'	P003081-04A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.
BH-2 @ 25'	P003081-05A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.
BH-3 @ 5'	P003081-06A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.
BH-3 @ 25'	P003081-07A	Soil	03/13/20	03/13/20	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-1 @ 5'
P003081-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	28.7	2.50	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	791	2.50	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	320	2.50	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	2690	5.00	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	736	2.50	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	3430	2.50	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %		50-150	2012001	03/16/20	03/17/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	2180	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Surrogate: n-Nonane		1050 %		50-200	2012015	03/17/20	03/17/20	EPA 8015D	S5

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	34700	2000	mg/kg	100	2012001	03/16/20	03/17/20	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %		50-150	2012001	03/16/20	03/17/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	23.0	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-1 @ 25'
P003081-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	0.0697	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	0.102	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	1.07	0.0500	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	0.293	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	1.36	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>107 %</i>		<i>50-150</i>	<i>2012001</i>	<i>03/16/20</i>	<i>03/17/20</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>87.3 %</i>		<i>50-200</i>	<i>2012015</i>	<i>03/17/20</i>	<i>03/17/20</i>	<i>EPA 8015D</i>	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>88.2 %</i>		<i>50-150</i>	<i>2012001</i>	<i>03/16/20</i>	<i>03/17/20</i>	<i>EPA 8015D</i>	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-1 @ 30'
P003081-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	2012001	03/16/20	03/17/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		84.3 %		50-200	2012015	03/17/20	03/17/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.1 %		50-150	2012001	03/16/20	03/17/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-2 @ 5'
P003081-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	1.37	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	1.78	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	18.5	0.0500	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	5.65	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	24.2	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		131 %		50-150	2012001	03/16/20	03/17/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	975	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		193 %		50-200	2012015	03/17/20	03/17/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	326	20.0	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		102 %		50-150	2012001	03/16/20	03/17/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	27.8	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-2 @ 25'
P003081-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	0.0360	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	0.117	0.0500	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	0.0321	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	0.149	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>103 %</i>		<i>50-150</i>	<i>2012001</i>	<i>03/16/20</i>	<i>03/17/20</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>87.6 %</i>		<i>50-200</i>	<i>2012015</i>	<i>03/17/20</i>	<i>03/17/20</i>	<i>EPA 8015D</i>	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>85.6 %</i>		<i>50-150</i>	<i>2012001</i>	<i>03/16/20</i>	<i>03/17/20</i>	<i>EPA 8015D</i>	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-3 @ 5'
P003081-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	1.21	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	38.0	1.25	mg/kg	50	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	13.0	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	132	2.50	mg/kg	50	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	37.1	1.25	mg/kg	50	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	169	1.25	mg/kg	50	2012001	03/16/20	03/17/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %		50-150	2012001	03/16/20	03/17/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	2170	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	219	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		636 %		50-200	2012015	03/17/20	03/17/20	EPA 8015D	S5

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	1840	1000	mg/kg	50	2012001	03/16/20	03/17/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.6 %		50-150	2012001	03/16/20	03/17/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

BH-3 @ 25'
P003081-07 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	2012001	03/16/20	03/17/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2012015	03/17/20	03/17/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		80.2 %		50-200	2012015	03/17/20	03/17/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2012001	03/16/20	03/17/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.1 %		50-150	2012001	03/16/20	03/17/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	25.3	20.0	mg/kg	1	2012014	03/17/20	03/17/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Elliott GC B 001A	Reported: 03/19/20 12:13
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Volatile Organics by EPA 8021 - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2012001 - Purge and Trap EPA 5030A**Blank (2012001-BLK1)**

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	7.93		"	8.00		99.2	50-150			

LCS (2012001-BS1)

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Benzene	5.10	0.0250	mg/kg	5.00		102	70-130			
Toluene	5.23	0.0250	"	5.00		105	70-130			
Ethylbenzene	5.16	0.0250	"	5.00		103	70-130			
p,m-Xylene	10.3	0.0500	"	10.0		103	70-130			
o-Xylene	5.12	0.0250	"	5.00		102	70-130			
Total Xylenes	15.4	0.0250	"	15.0		103	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.02		"	8.00		100	50-150			

Matrix Spike (2012001-MS1)

Source: P003087-05

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Benzene	5.01	0.0250	mg/kg	5.00	ND	100	54.3-133			
Toluene	5.15	0.0250	"	5.00	ND	103	61.4-130			
Ethylbenzene	5.08	0.0250	"	5.00	ND	102	61.4-133			
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131			
o-Xylene	4.99	0.0250	"	5.00	ND	99.8	63.3-131			
Total Xylenes	15.1	0.0250	"	15.0	ND	100	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.09		"	8.00		101	50-150			

Matrix Spike Dup (2012001-MSD1)

Source: P003087-05

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Benzene	5.02	0.0250	mg/kg	5.00	ND	100	54.3-133	0.0678	20	
Toluene	5.14	0.0250	"	5.00	ND	103	61.4-130	0.229	20	
Ethylbenzene	5.07	0.0250	"	5.00	ND	101	61.4-133	0.0552	20	
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131	0.0650	20	
o-Xylene	5.02	0.0250	"	5.00	ND	100	63.3-131	0.535	20	
Total Xylenes	15.1	0.0250	"	15.0	ND	101	0-200	0.134	200	
Surrogate: 4-Bromochlorobenzene-PID	8.15		"	8.00		102	50-150			

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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2012015 - DRO Extraction EPA 3570

Blank (2012015-BLK1)

Prepared & Analyzed: 03/17/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	44.9		"	50.0		89.8	50-200			

LCS (2012015-BS1)

Prepared & Analyzed: 03/17/20 1

Diesel Range Organics (C10-C28)	418	25.0	mg/kg	500		83.5	38-132			
Surrogate: n-Nonane	43.7		"	50.0		87.4	50-200			

Matrix Spike (2012015-MS1)

Source: P003081-01

Prepared & Analyzed: 03/17/20 1

Diesel Range Organics (C10-C28)	2540	25.0	mg/kg	500	2180	73.1	38-132			
Surrogate: n-Nonane	610		"	50.0		NR	50-200			S5

Matrix Spike Dup (2012015-MSD1)

Source: P003081-01

Prepared & Analyzed: 03/17/20 1

Diesel Range Organics (C10-C28)	2680	25.0	mg/kg	500	2180	100	38-132	5.16	20	
Surrogate: n-Nonane	502		"	50.0		1000	50-200			S5

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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2012001 - Purge and Trap EPA 5030A

Blank (2012001-BLK1)

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.89		"	8.00		86.1	50-150			

LCS (2012001-BS2)

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Gasoline Range Organics (C6-C10)	49.2	20.0	mg/kg	50.0		98.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.88		"	8.00		86.0	50-150			

Matrix Spike (2012001-MS2)

Source: P003087-05

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Gasoline Range Organics (C6-C10)	50.2	20.0	mg/kg	50.0	ND	100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.11		"	8.00		88.9	50-150			

Matrix Spike Dup (2012001-MSD2)

Source: P003087-05

Prepared: 03/16/20 0 Analyzed: 03/16/20 1

Gasoline Range Organics (C6-C10)	49.6	20.0	mg/kg	50.0	ND	99.3	70-130	1.21	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.96		"	8.00		87.1	50-150			

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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2012014 - Anion Extraction EPA 300.0/9056A**Blank (2012014-BLK1)**

Prepared & Analyzed: 03/17/20 1

Chloride	ND	20.0	mg/kg
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LCS (2012014-BS1)

Prepared & Analyzed: 03/17/20 1

Chloride	249	20.0	mg/kg	250	99.7	90-110
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Matrix Spike (2012014-MS1)**Source: P003081-01**

Prepared & Analyzed: 03/17/20 1

Chloride	275	20.0	mg/kg	250	23.0	101	80-120
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Matrix Spike Dup (2012014-MSD1)**Source: P003081-01**

Prepared & Analyzed: 03/17/20 1

Chloride	273	20.0	mg/kg	250	23.0	100	80-120	0.552	20
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QC Summary Report**Comment:**

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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BP America Production Co.	Project Name:	Elliott GC B 001A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/19/20 12:13

Notes and Definitions

- S5 Surrogate spike recovery exceeded acceptance limits due to interfering target and/or non-target analytes.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- ** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Client: BPX ENERGY				Report Attention				Lab Use Only				EPA Program			
Project: ELIOTT GC B O O I A				Report due by: STANDARD				Lab WO# P003081				Job Number 03143-0424			
Project Manager: STEVE MUSKAL				Attention: STEVE MUSKAL / JEFF BLAKE				Analysis and Method				RCRA CWA SDWA			
Address:				Address:				Analysis and Method				State			
City, State, Zip				City, State, Zip				Analysis and Method				State			
Phone:				Phone:				Analysis and Method				State			
Email:				Email:				Analysis and Method				State			
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRD/ORD by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	6010 Total P	Remarks		
0910	3/13/2020	Soil	1	BH-1 @ 5'	1	X	X	X			X				
1002			1	BH-1 @ 25'	2										
1016			1	BH-1 @ 30'	3										
1150			1	BH-2 @ 5'	4										
1306			1	BH-2 @ 25'	5										
1413			1	BH-3 @ 5'	6										
1454			1	BH-3 @ 25'	7										
Additional Instructions: Bill BFX PROJECT P.O. to be created															
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Jeff Blake															
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only									
Jeff Blake	3/13/2020	1616	Rain Lopez	3/13/2020	1616	Received on ice: Y/N									
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3									
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C 4									
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other															
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.															

Remedial Excavation

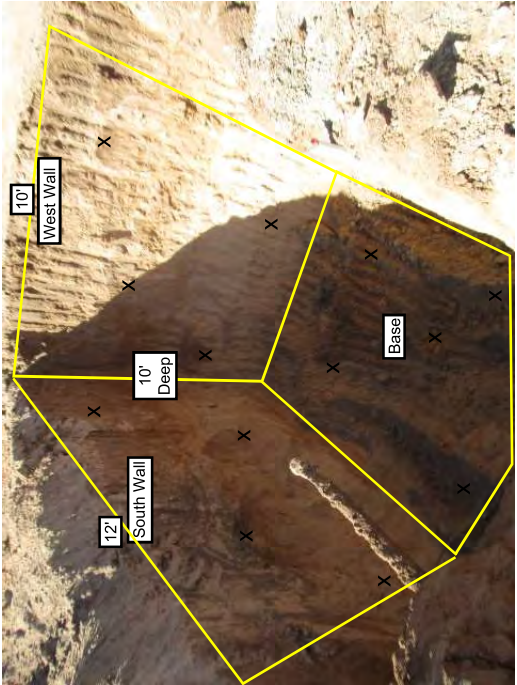
April 17, 2020



Elliott GC B 1A
(E) Sec 13 - T29N - R9W
API: 30-045-22339









Analytical Report

Report Summary

Client: BP America Production Co.

Samples Received: 4/17/2020

Job Number: 03143-0424

Work Order: P004107

Project Name/Location: ELLIOT GC B 1A

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light pink rectangular background.

Date: 4/21/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



BP America Production Co.
PO Box 22024
Tulsa OK, 74121-2024

Project Name: ELLIOT GC B 1A
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
04/21/20 12:34

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
N & E Sidewalls	P004107-01A	Soil	04/17/20	04/17/20	Glass Jar, 4 oz.
S & W Sidewalls	P004107-02A	Soil	04/17/20	04/17/20	Glass Jar, 4 oz.
Base @ 10'	P004107-03A	Soil	04/17/20	04/17/20	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

**N & E Sidewalls
P004107-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	2.92	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
Toluene	62.9	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
Ethylbenzene	22.6	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
p,m-Xylene	202	0.500	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
o-Xylene	51.4	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
Total Xylenes	254	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %		50-150	2017002	04/20/20	04/20/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	2900	25.0	mg/kg	1	2017003	04/20/20	04/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	78.1	50.0	mg/kg	1	2017003	04/20/20	04/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		979 %		50-200	2017003	04/20/20	04/20/20	EPA 8015D	S5

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	2480	200	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	2017002	04/20/20	04/20/20	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2017001	04/20/20	04/20/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

S & W Sidewalls**P004107-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	1.08	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
Toluene	21.7	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
Ethylbenzene	8.65	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
p,m-Xylene	78.5	0.500	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
o-Xylene	20.1	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
Total Xylenes	98.6	0.250	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>108 %</i>		<i>50-150</i>	<i>2017002</i>	<i>04/20/20</i>	<i>04/20/20</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	3210	25.0	mg/kg	1	2017003	04/20/20	04/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	360	50.0	mg/kg	1	2017003	04/20/20	04/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>362 %</i>		<i>50-200</i>	<i>2017003</i>	<i>04/20/20</i>	<i>04/20/20</i>	<i>EPA 8015D</i>	<i>S5</i>

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	947	200	mg/kg	10	2017002	04/20/20	04/20/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>96.1 %</i>		<i>50-150</i>	<i>2017002</i>	<i>04/20/20</i>	<i>04/20/20</i>	<i>EPA 8015D</i>	

Anions by 300.0/9056A

Chloride	26.3	20.0	mg/kg	1	2017001	04/20/20	04/20/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

Base @ 10'
P004107-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8021B	
Toluene	0.155	0.0250	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8021B	
Ethylbenzene	0.152	0.0250	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8021B	
p,m-Xylene	2.17	0.0500	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8021B	
o-Xylene	0.660	0.0250	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8021B	
Total Xylenes	2.83	0.0250	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>107 %</i>		<i>50-150</i>	<i>2017002</i>	<i>04/20/20</i>	<i>04/20/20</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	83.0	25.0	mg/kg	1	2017003	04/20/20	04/20/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2017003	04/20/20	04/20/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>97.0 %</i>		<i>50-200</i>	<i>2017003</i>	<i>04/20/20</i>	<i>04/20/20</i>	<i>EPA 8015D</i>	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	50.3	20.0	mg/kg	1	2017002	04/20/20	04/20/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>95.7 %</i>		<i>50-150</i>	<i>2017002</i>	<i>04/20/20</i>	<i>04/20/20</i>	<i>EPA 8015D</i>	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	2017001	04/20/20	04/20/20	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	ELLIOT GC B 1A	Reported: 04/21/20 12:34
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Volatile Organics by EPA 8021 - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017002 - Purge and Trap EPA 5030A**Blank (2017002-BLK1)**

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.34		"	8.00		104	50-150			

LCS (2017002-BS1)

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Benzene	4.97	0.0250	mg/kg	5.00		99.4	70-130			
Toluene	4.95	0.0250	"	5.00		99.0	70-130			
Ethylbenzene	4.93	0.0250	"	5.00		98.7	70-130			
p,m-Xylene	9.86	0.0500	"	10.0		98.6	70-130			
o-Xylene	4.95	0.0250	"	5.00		99.0	70-130			
Total Xylenes	14.8	0.0250	"	15.0		98.7	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.27		"	8.00		103	50-150			

Matrix Spike (2017002-MS1)

Source: P004108-01

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Benzene	5.05	0.0250	mg/kg	5.00	ND	101	54.3-133			
Toluene	5.02	0.0250	"	5.00	ND	100	61.4-130			
Ethylbenzene	4.99	0.0250	"	5.00	ND	99.8	61.4-133			
p,m-Xylene	9.97	0.0500	"	10.0	ND	99.7	63.3-131			
o-Xylene	5.02	0.0250	"	5.00	ND	100	63.3-131			
Total Xylenes	15.0	0.0250	"	15.0	ND	99.9	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.54		"	8.00		107	50-150			

Matrix Spike Dup (2017002-MSD1)

Source: P004108-01

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Benzene	5.00	0.0250	mg/kg	5.00	ND	99.9	54.3-133	1.09	20	
Toluene	4.97	0.0250	"	5.00	ND	99.4	61.4-130	1.09	20	
Ethylbenzene	4.96	0.0250	"	5.00	ND	99.1	61.4-133	0.709	20	
p,m-Xylene	9.90	0.0500	"	10.0	ND	99.0	63.3-131	0.686	20	
o-Xylene	4.98	0.0250	"	5.00	ND	99.5	63.3-131	0.899	20	
Total Xylenes	14.9	0.0250	"	15.0	ND	99.2	0-200	0.757	200	
Surrogate: 4-Bromochlorobenzene-PID	8.33		"	8.00		104	50-150			

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017003 - DRO Extraction EPA 3570

Blank (2017003-BLK1)

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	46.4		"	50.0		92.7	50-200			

LCS (2017003-BS1)

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Diesel Range Organics (C10-C28)	456	25.0	mg/kg	500		91.3	38-132			
Surrogate: n-Nonane	49.8		"	50.0		99.6	50-200			

Matrix Spike (2017003-MS1)

Source: P004104-01

Prepared: 04/20/20 0 Analyzed: 04/21/20 1

Diesel Range Organics (C10-C28)	438	25.0	mg/kg	500	ND	87.6	38-132			
Surrogate: n-Nonane	46.1		"	50.0		92.3	50-200			

Matrix Spike Dup (2017003-MSD1)

Source: P004104-01

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Diesel Range Organics (C10-C28)	444	25.0	mg/kg	500	ND	88.8	38-132	1.31	20	
Surrogate: n-Nonane	48.0		"	50.0		96.0	50-200			

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017002 - Purge and Trap EPA 5030A

Blank (2017002-BLK1)

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		"	8.00		94.8	50-150			

LCS (2017002-BS2)

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Gasoline Range Organics (C6-C10)	46.9	20.0	mg/kg	50.0		93.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.59		"	8.00		94.9	50-150			

Matrix Spike (2017002-MS2)

Source: P004108-01

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Gasoline Range Organics (C6-C10)	47.3	20.0	mg/kg	50.0	ND	94.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		"	8.00		94.5	50-150			

Matrix Spike Dup (2017002-MSD2)

Source: P004108-01

Prepared: 04/20/20 0 Analyzed: 04/20/20 2

Gasoline Range Organics (C6-C10)	47.2	20.0	mg/kg	50.0	ND	94.5	70-130	0.206	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.48		"	8.00		93.5	50-150			

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

Anions by 300.0/9056A - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017001 - Anion Extraction EPA 300.0/9056A**Blank (2017001-BLK1)**

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Chloride	ND	20.0	mg/kg							
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LCS (2017001-BS1)

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Chloride	254	20.0	mg/kg	250		101	90-110			
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Matrix Spike (2017001-MS1)**Source: P004108-01**

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Chloride	257	20.0	mg/kg	250	ND	103	80-120			
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Matrix Spike Dup (2017001-MSD1)**Source: P004108-01**

Prepared: 04/20/20 0 Analyzed: 04/20/20 1

Chloride	255	20.0	mg/kg	250	ND	102	80-120	1.02	20	
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QC Summary Report**Comment:**

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/21/20 12:34

Notes and Definitions

- S5 Surrogate spike recovery exceeded acceptance limits due to interfering target and/or non-target analytes.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- ** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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[illegible]

virotech
Analytical Laboratory

5795 US Highway 54, Farmington, NM 87401
24 Hour Emergency Response Phone (800) 3

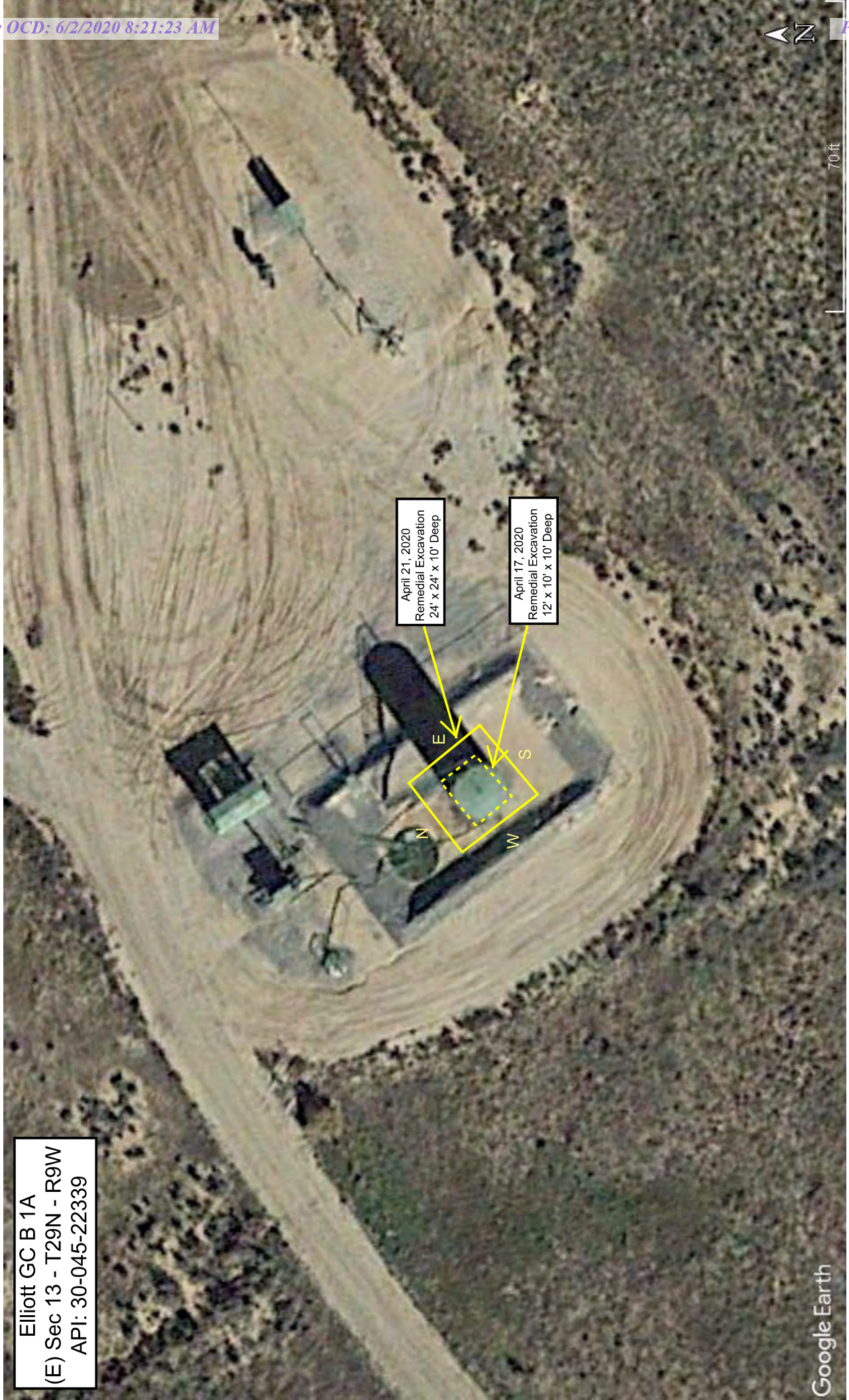
Ph (505) 632-1881 Fx (505) 632-1855

envirotech-inc.com
labadmin@envirotech-inc.com

Remedial Excavation

April 21, 2020

Elliott GC B 1A
(E) Sec 13 - T29N - R9W
API: 30-045-22339













Analytical Report

Report Summary

Client: BP America Production Co.

Samples Received: 4/21/2020

Job Number: 03143-0424

Work Order: P004117

Project Name/Location: ELLIOT GC B 1A

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a light pink rectangular background.

Date: 4/23/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNI certification T104704557-19-2 for the data reported.



BP America Production Co.
PO Box 22024
Tulsa OK, 74121-2024

Project Name: ELLIOT GC B 1A
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
04/23/20 13:37

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
South Base	P004117-01A	Soil	04/21/20	04/21/20	Glass Jar, 4 oz.
North Base	P004117-02A	Soil	04/21/20	04/21/20	Glass Jar, 4 oz.
North Sidewall	P004117-03A	Soil	04/21/20	04/21/20	Glass Jar, 4 oz.
South Sidewall	P004117-04A	Soil	04/21/20	04/21/20	Glass Jar, 4 oz.
East Sidewall	P004117-05A	Soil	04/21/20	04/21/20	Glass Jar, 4 oz.
West Sidewall	P004117-06A	Soil	04/21/20	04/21/20	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/23/20 13:37

**South Base
P004117-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	2017022	04/21/20	04/22/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	28.8	25.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		84.8 %		50-200	2017023	04/22/20	04/22/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.5 %		50-150	2017022	04/21/20	04/22/20	EPA 8015D	

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/23/20 13:37

**North Base
P004117-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Toluene	0.117	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Ethylbenzene	0.0838	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
p,m-Xylene	0.847	0.0500	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
o-Xylene	0.246	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Total Xylenes	1.09	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>109 %</i>		<i>50-150</i>	<i>2017022</i>	<i>04/21/20</i>	<i>04/22/20</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	482	25.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
Oil Range Organics (C28-C40)	112	50.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>91.8 %</i>		<i>50-200</i>	<i>2017023</i>	<i>04/22/20</i>	<i>04/22/20</i>	<i>EPA 8015D</i>	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>92.2 %</i>		<i>50-150</i>	<i>2017022</i>	<i>04/21/20</i>	<i>04/22/20</i>	<i>EPA 8015D</i>	

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
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**North Sidewall
P004117-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %		50-150	2017022	04/21/20	04/22/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		85.6 %		50-200	2017023	04/22/20	04/22/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.7 %		50-150	2017022	04/21/20	04/22/20	EPA 8015D	

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
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Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/23/20 13:37

**South Sidewall
P004117-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %		50-150	2017022	04/21/20	04/22/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		85.5 %		50-200	2017023	04/22/20	04/22/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.1 %		50-150	2017022	04/21/20	04/22/20	EPA 8015D	

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	04/23/20 13:37

**East Sidewall
P004117-05 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		95.7 %		50-150	2017022	04/21/20	04/22/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		77.7 %		50-200	2017023	04/22/20	04/22/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.5 %		50-150	2017022	04/21/20	04/22/20	EPA 8015D	

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
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**West Sidewall
P004117-06 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	2017022	04/21/20	04/22/20	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	46.8	25.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	2017023	04/22/20	04/22/20	EPA 8015D	
<i>Surrogate: n-Nonane</i>		87.9 %		50-200	2017023	04/22/20	04/22/20	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	2017022	04/21/20	04/22/20	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.5 %		50-150	2017022	04/21/20	04/22/20	EPA 8015D	

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	Reported: 04/23/20 13:37
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Volatile Organics by EPA 8021 - Quality Control**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017022 - Purge and Trap EPA 5030A**Blank (2017022-BLK1)**

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.26		"	8.00		103	50-150			

LCS (2017022-BS1)

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Benzene	5.04	0.0250	mg/kg	5.00		101	70-130			
Toluene	5.02	0.0250	"	5.00		100	70-130			
Ethylbenzene	4.99	0.0250	"	5.00		99.8	70-130			
p,m-Xylene	9.97	0.0500	"	10.0		99.7	70-130			
o-Xylene	5.02	0.0250	"	5.00		100	70-130			
Total Xylenes	15.0	0.0250	"	15.0		100	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.28		"	8.00		104	50-150			

Matrix Spike (2017022-MS1)

Source: P004117-01

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Benzene	4.97	0.0250	mg/kg	5.00	ND	99.4	54.3-133			
Toluene	4.94	0.0250	"	5.00	ND	98.9	61.4-130			
Ethylbenzene	4.92	0.0250	"	5.00	ND	98.4	61.4-133			
p,m-Xylene	9.82	0.0500	"	10.0	ND	98.2	63.3-131			
o-Xylene	4.96	0.0250	"	5.00	ND	99.1	63.3-131			
Total Xylenes	14.8	0.0250	"	15.0	ND	98.5	0-200			
Surrogate: 4-Bromochlorobenzene-PID	8.45		"	8.00		106	50-150			

Matrix Spike Dup (2017022-MSD1)

Source: P004117-01

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Benzene	5.15	0.0250	mg/kg	5.00	ND	103	54.3-133	3.63	20	
Toluene	5.12	0.0250	"	5.00	ND	102	61.4-130	3.42	20	
Ethylbenzene	5.10	0.0250	"	5.00	ND	102	61.4-133	3.46	20	
p,m-Xylene	10.2	0.0500	"	10.0	ND	102	63.3-131	3.57	20	
o-Xylene	5.13	0.0250	"	5.00	ND	103	63.3-131	3.39	20	
Total Xylenes	15.3	0.0250	"	15.0	ND	102	0-200	3.51	200	
Surrogate: 4-Bromochlorobenzene-PID	8.43		"	8.00		105	50-150			

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	Reported: 04/23/20 13:37
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017023 - DRO Extraction EPA 3570

Blank (2017023-BLK1)

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	49.9		"	50.0		99.8	50-200			

LCS (2017023-BS1)

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Diesel Range Organics (C10-C28)	430	25.0	mg/kg	500		86.0	38-132			
Surrogate: n-Nonane	47.3		"	50.0		94.5	50-200			

Matrix Spike (2017023-MS1)

Source: P004117-01

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Diesel Range Organics (C10-C28)	467	25.0	mg/kg	500	28.8	87.7	38-132			
Surrogate: n-Nonane	47.7		"	50.0		95.3	50-200			

Matrix Spike Dup (2017023-MSD1)

Source: P004117-01

Prepared: 04/22/20 0 Analyzed: 04/22/20 1

Diesel Range Organics (C10-C28)	484	25.0	mg/kg	500	28.8	90.9	38-132	3.39	20	
Surrogate: n-Nonane	48.0		"	50.0		96.1	50-200			

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	
PO Box 22024	Project Number:	03143-0424	Reported:
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Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2017022 - Purge and Trap EPA 5030A

Blank (2017022-BLK1)

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		"	8.00		92.2	50-150			

LCS (2017022-BS2)

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Gasoline Range Organics (C6-C10)	44.8	20.0	mg/kg	50.0		89.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.58		"	8.00		94.8	50-150			

Matrix Spike (2017022-MS2)

Source: P004117-01

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Gasoline Range Organics (C6-C10)	47.1	20.0	mg/kg	50.0	ND	94.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		"	8.00		93.9	50-150			

Matrix Spike Dup (2017022-MSD2)

Source: P004117-01

Prepared: 04/21/20 1 Analyzed: 04/22/20 0

Gasoline Range Organics (C6-C10)	40.4	20.0	mg/kg	50.0	ND	80.7	70-130	15.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.57		"	8.00		94.7	50-150			

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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BP America Production Co.	Project Name:	ELLIOT GC B 1A	Reported: 04/23/20 13:37
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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