

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	NVF1828338890
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BP America Production Co.	OGRID: 778
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179
Contact email: steven.moskal@bpx.com	Incident # (assigned by OCD) NVF1828338890
Contact mailing address: 380 Airport Road, Durango CO, 81303	

Location of Release Source

Latitude: 36.629012° Longitude: -108.175144°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gallegos Canyon Unit 175E	Site Type: Natural Gas Production Well Pad
Date Release Discovered: September 21, 2018	API#: 30-045-26211

Unit Letter	Section	Township	Range	County
M	25	T28N	R13W	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): <u>3 bbls</u>	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:


Failure of fiberglass flowline from the identified at the 90° fitting at 4' below the base of the production storage tank.

Incident ID	
District RP	
Facility ID	
Application ID	

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)?	

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: <u>Steve Moskal</u>	Title: <u>Environmental Coordinator</u>
Signature: 	Date: <u>October 2, 2018</u>
email: <u>steven.moskal@bpx.com</u>	Telephone: <u>(505) 330-9179</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	
District RP	
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?	<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 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.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"><input type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input type="checkbox"/> Field data<input type="checkbox"/> Data table of soil contaminant concentration data<input type="checkbox"/> Depth to water determination<input type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input type="checkbox"/> Boring or excavation logs<input type="checkbox"/> Photographs including date and GIS information<input type="checkbox"/> Topographic/Aerial maps<input type="checkbox"/> 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.

Incident ID	
District RP	
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: Steve Moskal Title: Environmental Coordinator

Signature:  Date: October 2, 2018

email: steven.moskal@bpx.com Telephone: (505) 330-9179

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
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: Steve Moskal Title: Environmental Coordinator

Signature: 

Date: October 2, 2018

email: steven.moskal@bpx.com

Telephone: (505) 330-9179

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: September 9, 2018

email: steven.moskal@bpx.com Telephone: (505) 330-9179

OCD Only

Received by: OCD Date: 9/11/19

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: 10/2/19

Printed Name: Cory Title: Environmental Specialist

BPX Energy
GCU 175E
(M) Sec 25 – T28N – R13W
San Juan County, New Mexico
API: 30-045-26211
NMOCD Incident #NVF1828338890

Summary Record of Impact Remediation

September 21, 2018 Soils impacted with hydrocarbons discovered adjacent to oil stock tank. Cause due to failure of fiberglass elbow, buried 4' below grade. Initial volume lost estimated at 3 barrels condensate.

Site Closure Standard Determined at 100 ppm TPH based on:

Depth to Groundwater > 100 feet
Distance to water well > 1,000'
Distance to dry wash < 300' based on site measurements

August 20, 2019 Begin site remediation via excavation at release point.

August 22, 2019 Complete excavation. Final base of excavation approximately 20' x 20' x 30' deep (from original well pad surface grade), with top perimeter of excavation approximately 120' x 90' with sloping to accommodate safe excavation practices.

August 23, 2019 Conduct witnessed sampling of remedial excavation for final closure. Summary laboratory data presented below: (See site figures and photographs for identification of sampling areas. All samples comprised of 5-point composites):

Sample ID	Sampling Depths	TPH Total (mg/Kg)	BTEX Total (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
Ramp	10'-15'	ND	ND	ND	33.8
Segment #1	3'-15'	ND	ND	ND	ND
Segment #2	3'-15'	ND	ND	ND	ND
Segment #3	3'-15'	ND	ND	ND	ND
Segment #4	3'-15'	ND	ND	ND	ND
Segment #5	3'-15'	ND	ND	ND	30.6
Segment #6	3'-15'	ND	ND	ND	ND
Base	30'	ND	ND	ND	59.7
NW Wall	15'-29'	ND	ND	ND	78.5
SE Wall	15'-29'	ND	ND	ND	72.2
SW Wall	15'-29'	ND	ND	ND	ND
NE Wall	15'-29'	ND	ND	ND	ND
NMOCD/BLM Closure Standard		100	50	10	600

August 28, 2019 Complete backfilling of excavation. Impacted soil volume of 760 CY transported to Envirotech Landfarm.

GCU 175E
(M) Sec 25 - T28N - R13W
API: 30-045-26211

GCU 175E



Excavation Outer Perimeter

Excavation Inner Perimeter
(23' x 23' x 30' Deep)
(August 23, 2019)

GCU 175E
Shallow Segment Sampling Areas
August 23, 2019



GCU 175E
Base @ 30'
August 23, 2019



GCU 175E
NW Wall (15'-29')
August 23, 2019



GCU 175E
SE Wall (15' - 29')
August 23, 2019



GCU 175E
SW Wall (15' - 29')
August 23, 2019



GCU 175E
NE Wall (15' - 29')
August 23, 2019



Analytical Report

Report Summary

Client: BP America Production Co.

Samples Received: 8/23/2019

Job Number: 03143-0424

Work Order: P908071

Project Name/Location: GCU 175E

Report Reviewed By:



Date: 8/27/19

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, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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

Project Name: GCU 175E
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
08/27/19 14:58

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Ramp @ 10'-15'	P908071-01A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #1 (3'-15')	P908071-02A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #2 (3'-15')	P908071-03A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #3 (3'-15')	P908071-04A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #4 (3'-15')	P908071-05A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #5 (3'-15')	P908071-06A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #6 (3'-15')	P908071-07A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Base @ 30'	P908071-08A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
NW Wall (15'-29')	P908071-09A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
SE Wall (15'-29')	P908071-10A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
SW Wall (15'-29')	P908071-11A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
NE Wall (15'-29')	P908071-12A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Ramp @ 10'-15'
P908071-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		97.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		98.4 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		104 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		97.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		98.4 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	33.8	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	------	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Segment #1 (3'-15')
P908071-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		98.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		105 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		98.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

**Segment #2 (3'-15')
 P908071-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		88.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		99.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		107 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		88.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		99.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	--------------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Segment #3 (3'-15')
P908071-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		90.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		102 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		90.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Segment #4 (3'-15')
P908071-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		88.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		98.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		104 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		88.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		98.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Segment #5 (3'-15')
P908071-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		88.0 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		96.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		104 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		88.0 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		96.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	30.6	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	------	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Segment #6 (3'-15')
P908071-07 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		98.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		96.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		103 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		98.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		96.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

Base @ 30'
P908071-08 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		98.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		96.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		103 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		98.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		96.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	59.7	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	------	------	-------	---	---------	----------	----------	-----------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

**NW Wall (15'-29')
 P908071-09 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		98.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		105 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		98.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	78.5	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	------	------	-------	---	---------	----------	----------	--------------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

**SE Wall (15'-29')
 P908071-10 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		95.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		108 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		95.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	72.2	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	------	------	-------	---	---------	----------	----------	--------------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

**SW Wall (15'-29')
 P908071-11 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Toluene-d8		98.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
Surrogate: Bromofluorobenzene		97.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Surrogate: n-Nonane		107 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: 1,2-Dichloroethane-d4		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Toluene-d8		98.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
Surrogate: Bromofluorobenzene		97.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	--------------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

**NE Wall (15'-29')
 P908071-12 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organic Compounds by 8260

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		107 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
----------	----	------	-------	---	---------	----------	----------	--------------------	--

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

BP America Production Co.	Project Name: GCU 175E	
PO Box 22024	Project Number: 03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	08/27/19 14:58

Volatile Organic Compounds by 8260 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1934059 - Purge and Trap EPA 5030A

Blank (1934059-BLK1)

Prepared: 08/23/19 1 Analyzed: 08/26/19 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: 1,2-Dichloroethane-d4	0.523		"	0.500		105	70-130			
Surrogate: Toluene-d8	0.446		"	0.500		89.1	70-130			
Surrogate: Bromofluorobenzene	0.486		"	0.500		97.2	70-130			

LCS (1934059-BS1)

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	2.79	0.0250	mg/kg	2.50		112	70-130			
Toluene	2.23	0.0250	"	2.50		89.2	70-130			
Ethylbenzene	2.28	0.0250	"	2.50		91.2	70-130			
p,m-Xylene	4.47	0.0500	"	5.00		89.5	70-130			
o-Xylene	2.19	0.0250	"	2.50		87.5	70-130			
Total Xylenes	6.66	0.0250	"	7.50		88.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.516		"	0.500		103	70-130			
Surrogate: Toluene-d8	0.455		"	0.500		90.9	70-130			
Surrogate: Bromofluorobenzene	0.484		"	0.500		96.8	70-130			

Matrix Spike (1934059-MS1)

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	2.78	0.0250	mg/kg	2.50	ND	111	48-131			
Toluene	2.22	0.0250	"	2.50	ND	88.8	48-130			
Ethylbenzene	2.30	0.0250	"	2.50	ND	91.9	45-135			
p,m-Xylene	4.55	0.0500	"	5.00	ND	90.9	43-135			
o-Xylene	2.22	0.0250	"	2.50	ND	88.8	43-135			
Total Xylenes	6.77	0.0250	"	7.50	ND	90.2	43-135			
Surrogate: 1,2-Dichloroethane-d4	0.513		"	0.500		103	70-130			
Surrogate: Toluene-d8	0.447		"	0.500		89.3	70-130			
Surrogate: Bromofluorobenzene	0.495		"	0.500		98.9	70-130			

Matrix Spike Dup (1934059-MSD1)

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	2.78	0.0250	mg/kg	2.50	ND	111	48-131	0.180	23	
Toluene	2.27	0.0250	"	2.50	ND	90.6	48-130	1.98	24	
Ethylbenzene	2.33	0.0250	"	2.50	ND	93.3	45-135	1.51	27	
p,m-Xylene	4.57	0.0500	"	5.00	ND	91.4	43-135	0.516	27	
o-Xylene	2.25	0.0250	"	2.50	ND	89.8	43-135	1.21	27	
Total Xylenes	6.82	0.0250	"	7.50	ND	90.9	43-135	0.744	27	
Surrogate: 1,2-Dichloroethane-d4	0.524		"	0.500		105	70-130			
Surrogate: Toluene-d8	0.455		"	0.500		90.9	70-130			
Surrogate: Bromofluorobenzene	0.492		"	0.500		98.3	70-130			

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

Project Name: GCU 175E
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
08/27/19 14:58

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1935001 - DRO Extraction EPA 3570

Blank (1935001-BLK1)

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	27.5		"	50.0		55.0	50-200			

LCS (1935001-BS1)

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	483	25.0	mg/kg	500		96.6	38-132			
Surrogate: n-Nonane	37.0		"	50.0		74.0	50-200			

Matrix Spike (1935001-MS1)

Source: P908071-01

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	519	25.0	mg/kg	500	ND	104	38-132			
Surrogate: n-Nonane	39.6		"	50.0		79.1	50-200			

Matrix Spike Dup (1935001-MSD1)

Source: P908071-01

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	532	25.0	mg/kg	500	ND	106	38-132	2.50	20	
Surrogate: n-Nonane	36.2		"	50.0		72.3	50-200			

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1934059 - Purge and Trap EPA 5030A
Blank (1934059-BLK1)

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	0.523		"	0.500		105	70-130			
Surrogate: Toluene-d8	0.446		"	0.500		89.1	70-130			
Surrogate: Bromofluorobenzene	0.486		"	0.500		97.2	70-130			

LCS (1934059-BS2)

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	47.9	20.0	mg/kg	50.0		95.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		"	0.500		99.6	70-130			
Surrogate: Toluene-d8	0.451		"	0.500		90.1	70-130			
Surrogate: Bromofluorobenzene	0.484		"	0.500		96.7	70-130			

Matrix Spike (1934059-MS2)

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	46.9	20.0	mg/kg	50.0	ND	93.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		"	0.500		101	70-130			
Surrogate: Toluene-d8	0.452		"	0.500		90.3	70-130			
Surrogate: Bromofluorobenzene	0.491		"	0.500		98.1	70-130			

Matrix Spike Dup (1934059-MSD2)

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	47.4	20.0	mg/kg	50.0	ND	94.8	70-130	1.04	20	
Surrogate: 1,2-Dichloroethane-d4	0.501		"	0.500		100	70-130			
Surrogate: Toluene-d8	0.461		"	0.500		92.2	70-130			
Surrogate: Bromofluorobenzene	0.490		"	0.500		98.0	70-130			

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

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

 Project Name: GCU 175E
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/27/19 14:58

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1934060 - Anion Extraction EPA 300.0/9056A
Blank (1934060-BLK1)

Prepared & Analyzed: 08/23/19 1

Chloride ND 20.0 mg/kg

LCS (1934060-BS1)

Prepared & Analyzed: 08/23/19 1

Chloride 257 20.0 mg/kg 250 103 90-110

Matrix Spike (1934060-MS1)
Source: P908071-01

Prepared & Analyzed: 08/23/19 1

Chloride 303 20.0 mg/kg 250 33.8 108 80-120

Matrix Spike Dup (1934060-MSD1)
Source: P908071-01

Prepared & Analyzed: 08/23/19 1

Chloride 300 20.0 mg/kg 250 33.8 107 80-120 0.869 20

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.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

BP America Production Co.	Project Name:	GCU 175E	Reported: 08/27/19 14:58
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

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

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Client: <u>BPX</u> Project: <u>GCU 175E</u> Project Manager: <u>STEVE MOSKAL</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____					Report Attention Report due by: <u>8/26/2019</u> Attention: <u>STEVE MOSKAL / JEFF BLAGG</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____					Lab Use Only Lab WO# <u>P 908071</u> Job Number <u>03143-0424</u> Analysis and Method: _____ DRO/DRO by 8015: _____ GRO/DRO by 8015: _____ BTEX by 8021: _____ VOC by 8260: _____ Metals 6010: _____ Chloride 300.0: _____					TAT 1D <input checked="" type="checkbox"/> 3D <input type="checkbox"/>		EPA Program RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/>			
												State NM <input checked="" type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/> TX <input type="checkbox"/> OK <input type="checkbox"/>								
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0									Remarks
0915	8/23/2019	SOIL	1	RAMP @ 10'-15'	1	X	X	X			X									
0918			1	SEGMENT #1 (3'-15')	2															
0922			1	SEGMENT #2 (3'-15')	3															
0926			1	SEGMENT #3 (3'-15')	4															
0929			1	SEGMENT #4 (3'-15')	5															
0932			1	SEGMENT #5 (3'-15')	6															
0935			1	SEGMENT #6 (3'-15')	7															
0944			1	BASE @ 30'	8															
0947			1	NW Wall (15'-29')	9															
0954			1	SE Wall (15'-29')	10															
Additional Instructions: <u>BILL BPX - P.O. ISSUED FOR THIS PROJECT.</u>																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Jeff Blagg</u>												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6°C on subsequent days.								
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only Received on ice: <u>Y / N</u> T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>								
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time										
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time										
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____								
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.																				

Page 21 of 21