

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 Report
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179	
Contact email: steven.moskal@bpx.com	Incident # (assigned by OCD)	
Contact mailing address: 1199 Main Street, Suite 101, Durango CO, 81301	 	

### Location of Release Source

Latitude: 36.795137 Longitude: -107.907089  
(NAD 83 in decimal degrees to 5 decimal places)

JAN 24 2019  
DISTRICT III

Site Name: Gage Com 001M	Site Type: Natural Gas Production Well Pad
Date Release Discovered: August 24, 2018	API#: 30-045-32075

Unit Letter	Section	Township	Range	County
J	20	30N	10W	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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls): <u>2.5 bbls</u>	Volume Recovered (bbls): <u>0 bbls</u>
	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>7.9 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:  
Corrosion of man-way flange on aboveground storage tank.

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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?	___79'___ (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 <b>not</b> 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><b>Characterization Report Checklist:</b> <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li><input type="checkbox"/> Field data</li> <li><input type="checkbox"/> Data table of soil contaminant concentration data</li> <li><input type="checkbox"/> Depth to water determination</li> <li><input type="checkbox"/> Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release</li> <li><input type="checkbox"/> Boring or excavation logs</li> <li><input type="checkbox"/> Photographs including date and GIS information</li> <li><input type="checkbox"/> Topographic/Aerial maps</li> <li><input type="checkbox"/> Laboratory data including chain of custody</li> </ul>
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If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
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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: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**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: September 7, 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: \_\_\_\_\_



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District RP	
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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

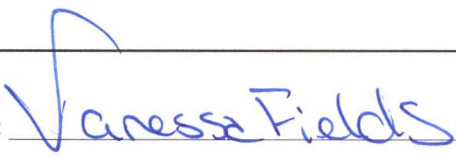
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public 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

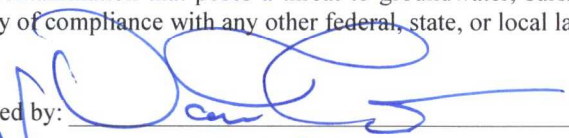
Signature:  Date: January 23, 2019

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

**OCD Only**

Received by:  Date: 1/24/2019

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: 1/24/2019  
Printed Name: Vanessa Fields Title: Environmental Specialist

**BPX Energy**  
**Gage Com 1M**  
**(J) Sec 20 – T30N – R10W**  
**San Juan County, New Mexico**  
**API: 30-045-32075**

Summary Record of Impact Remediation

August 24, 2018

1. A release of approximately 7.9 barrels condensate and 2.5 barrels produced water was discovered at the on-site above grade storage tank. The release source was corrosion of the man-way flange. The liquids penetrated the ground surface and no fluid recovery was possible. No additional fluids were placed into the tank pending tank repair and soil remediation.
2. The site closure standard pursuant to Release Rule 19.15.29 NMAC was established as follows:

Distance to Significant Water Course > 300 feet  
Distance to lakebed, sinkhole or playa lake > 200 feet  
Distance to Residence, School, etc: > 300 feet  
Distance to Nearest Water Well, Spring, etc: > 1,000 feet  
Not within a Municipal Boundary or Water Well Field  
Distance to Nearest Wetland > 300 feet  
Not over a Subsurface Mine, within an Unstable Area or 100-Year Floodplain  
Depth to Groundwater >50 feet

The site closure standard was therefore determined at:

2,500 mg/Kg TPH total (GRO+DRO+MRO)  
1,000 mg/Kg TPH (GRO+DRO)  
50 mg/Kg BTEX total  
10 mg/Kg Benzene  
10,000 mg/Kg Chlorides

September 7, 2018 BPX submits a remediation plan to both BLM and NMOCD, providing confirmation for each of the above listed set-backs. The site is on a Federal mineral lease, with remediation under the jurisdiction of BLM and NMOCD. Proposed remediation of soil impacts is via on-site soil shredding

September 10, 2018: BPX receives NMOCD approval on site closure standard and remediation plan.

September 24, 2018: BPX receives BLM approval on site closure standard and remediation plan.

November 13, 2018: BPX initiates remediation.

November 15, 2018: Sample event of remedial excavation and treated soil piles. Final excavation extended to a total depth of 16', with a base perimeter of 18' x 18' and a top perimeter of 30' x 30'. Pile sampling included 4 x 100 CY piles and 1 x 70 CY pile.

November 16, 2018: Receive rush laboratory analytical reports from sample event. All excavation samples tested within the site closure standard. Treated piles TSP-1 and TSP- 2 both fail. BPX elects to further treat both failing piles.

November 20, 2018: Re-sample treated piles TSP-1 and TSP-2

November 21, 2018: Receive rush laboratory analytical reports. Pile TSP-1 fails testing, pile TSP-2 passes.

November 26, 2018: Re-sample of treated pile TSP-1 after allowing complete residence time.

November 27, 2018: Receive rush laboratory analytical report. Pile TSP-1 passes testing.

November 28, 2018: Remediation contractor completes backfilling of excavation with treated soils.

January 9, 2019: Sample treatment surface vadose zone pursuant to the approved remediation plan.

January 14, 2019: Receive laboratory analytical reports from vadose zone sampling. All samples pass testing.

### Excavation Closure Sampling Test Results

November 15, 2018

(All 5-Point Composites)

(See Figure 1 map and photo's)

Sample ID	Field OVM (ppm)	TPH (GRO+DRO) mg/Kg	TPH Total (GRO+DRO+MRO) mg/Kg	BTEX (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
West Wall (6'-14')	1,148	34.3	34.3	0.567	ND	ND
South Wall (6'-14')	21.4	ND	ND	ND	ND	ND
North Wall (6'-14')	26.3	ND	ND	ND	ND	ND
East Wall (6'-14')	7.2	ND	ND	ND	ND	ND
Base @ 16'	19.0	ND	ND	ND	ND	ND
Closure Standard:		1,000	2,500	50	10	10,000



**Treated Pile Sampling Test Results**  
(All 5-Point Composites)

Sample ID	Volume (CY)	Sample Date	Field OVM (ppm)	TPH (GRO+DRO) mg/Kg	TPH Total (GRO+DRO+MRO) mg/Kg	BTEX (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
TSP-1	100	11/15/2018	2,115	1,908	1,973.1	49.8	ND	ND
TSP-2	100	11/15/2018	1,904	1,370	1,445.5	31.0	ND	ND
TSP-3	100	11/15/2018	1,428	483.4	483.4	6.03	ND	ND
TSP-4	100	11/15/2018	1,297	680	680	15.8	ND	ND
TSP-5	70	11/15/2018	1,274	844	844	30.8	ND	ND
TSP-1R	100	11/20/2018	822	1,059	1,059	11.6	ND	ND
TSP-2R	100	11/20/2018	628	783	783	7.42	ND	ND
TSP-1R	100	11/26/2018	602	523	523	NA	NA	NA
Closure Standard:				1,000	2,500	50	10	10,000

**Vadose Zone Closure Sampling Test Results**  
January 9, 2019  
(All 5-Point Composites)

Sample ID	Field OVM (ppm)	TPH (GRO+DRO) mg/Kg	TPH Total (GRO+DRO+MRO) mg/Kg	BTEX (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
East Vadose 5-point	8.7	ND	ND	ND	ND	ND
West Vadose 5-point	4.3	ND	ND	ND	ND	ND
Closure Standard:		1,000	2,500	50	10	10,000

Gage Com 1M

Figure 1 and Photographs



# Figure 1

## Gage Com 1M

(J)Sec 20-T30N-R10W  
API: 30-045-32075  
Inc: NVF1825340581

November 15, 2018  
Remedial Excavation  
Top Perimeter: 30'x30'  
Base Perimeter: 18'x18'  
Depth: 16'

Closure Sampling - Nov 15, 2018  
Base 5-pt @ 16': TPH = ND  
West wall 5-pt(6'-14'): TPH = 34.3 mg/Kg  
South wall 5-pt(6'-14'): TPH = ND  
North wall 5-pt(6'-14'): TPH = ND  
East wall 5-pt(6'-14'): TPH = ND

Treated Pile Sampling - Nov 15, 2018  
(All 5-pt Composites, Piles created on 11/14/2018)  
TSP-1: 100 CY - TPH = 1,973 mg/Kg  
TSP-2: 100 CY - TPH = 1,446 mg/Kg  
TSP-3: 100 CY - TPH = 483 mg/Kg  
TSP-4: 100 CY - TPH = 680 mg/Kg  
TSP-5: 70 CY - TPH = 844 mg/Kg

Treated Pile Sampling - Nov 20, 2018  
(After re-treatment of piles TSP-1 and TSP-2)  
TSP-1: 100 CY - TPH = 1,059 mg/Kg  
TSP-2: 100 CY - TPH = 783 mg/Kg

Treated Pile Sampling - Nov 26, 2018  
(After additional residence time on TSP-1)  
TSP-1: 100 CY - TPH = 523 mg/Kg





Gage Com 1M  
Sample Locations  
Nov 15, 2018

East Wall

South Wall

Base

x

x

x

x

x

x

x

x

x

x

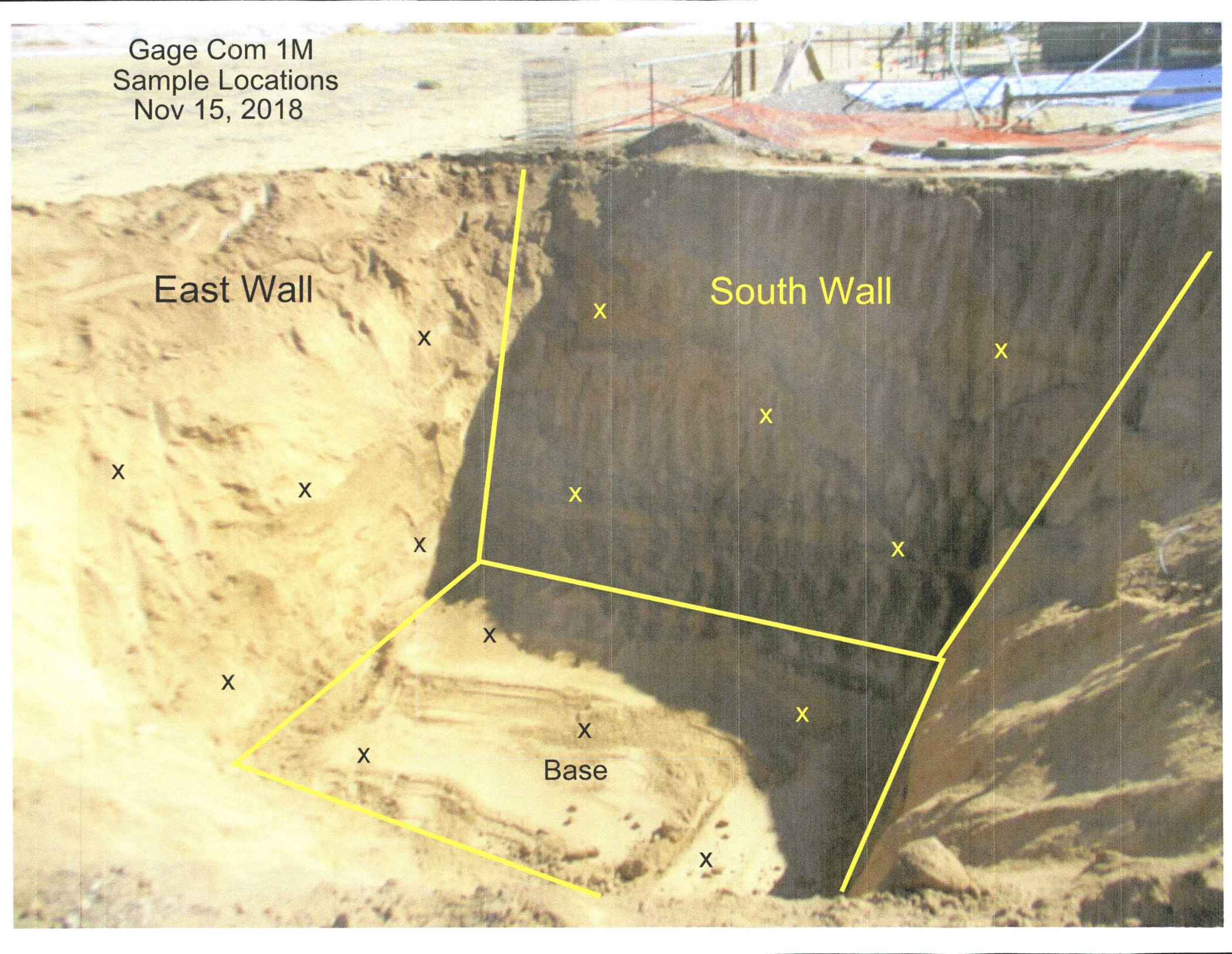
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Gage Com 1M  
Sample Locations  
Nov 15, 2018

West Wall

North Wall

Base

x

x

x

x

x

x

x

x

x

x

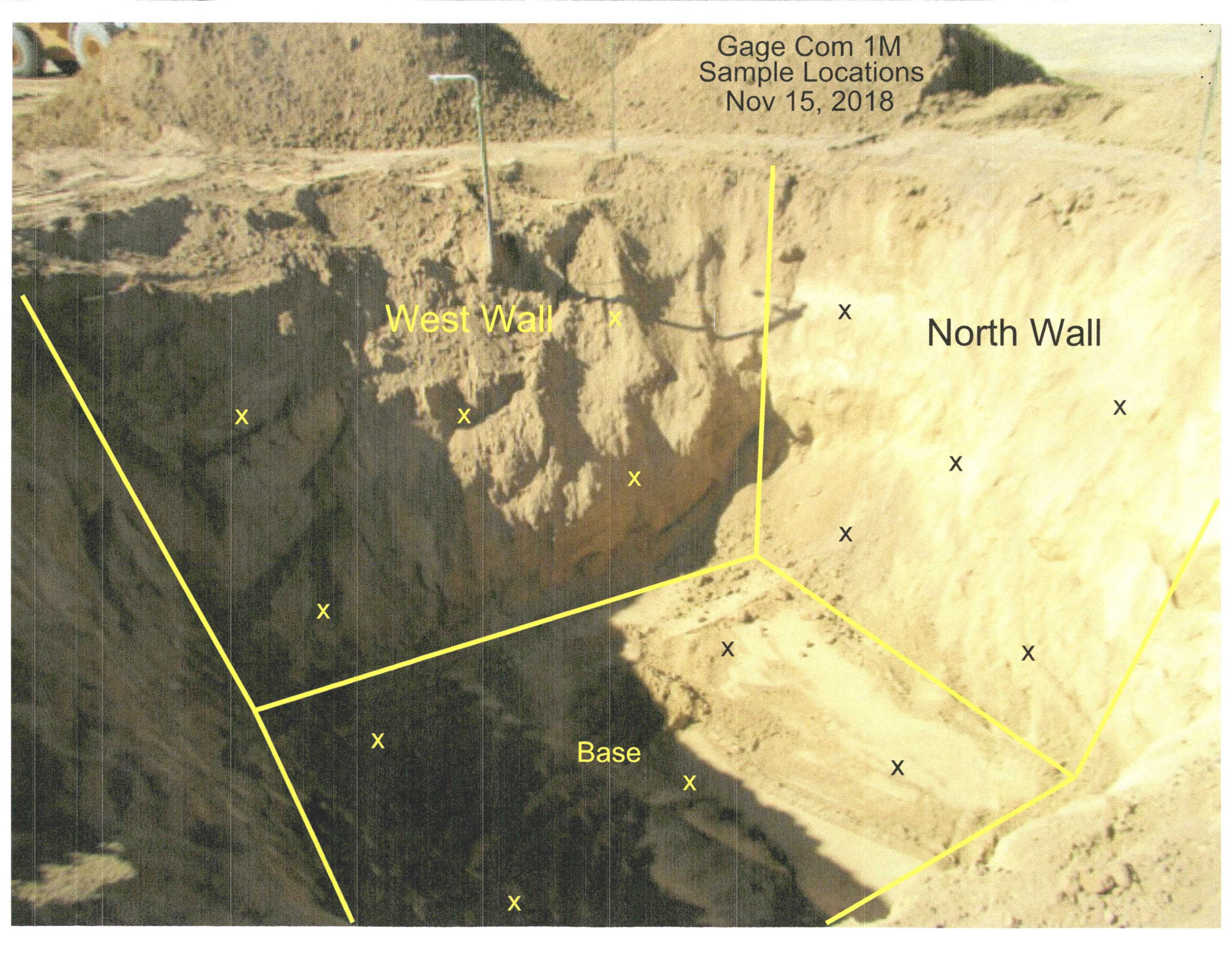
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Gage Com 1M

Laboratory Analytical Data Reports



## Analytical Report

### Report Summary

Client: BP America Production Co.  
Chain Of Custody Number:  
Samples Received: 11/15/2018 3:20:00PM  
Job Number: 03143-0424  
Work Order: P811049  
Project Name/Location: Gage Com 1M

Report Reviewed By:



Date: 11/19/18

Walter Hinchman, Laboratory Director



Date: 11/19/18

Tim Cain, Project Manager



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: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:18
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Wall (6'-14')	P811049-01A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
South Wall (6'-14')	P811049-02A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
North Wall (6'-14')	P811049-03A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
East Wall (6'-14')	P811049-04A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
Base @ 16'	P811049-05A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:18
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**West Wall (6'-14')  
P811049-01 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	<b>460</b>	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	<b>108</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	<b>567</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	<b>567</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.3 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	<b>34.3</b>	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		110 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		86.8 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:18
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**South Wall (6'-14')  
P811049-02 (Solid)**

Analyte	Reporting								
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.0 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		84.7 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:18
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**North Wall (6'-14')  
P811049-03 (Solid)**

Analyte	Reporting								
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.8 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		86.4 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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

 Project Name: Gage Com 1M  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 11/19/18 11:18

**East Wall (6'-14')**  
**P811049-04 (Solid)**

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.6 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		84.8 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:18
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**Base @ 16'**  
**P811049-05 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organics by EPA 8021**

Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B
Toluene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B
Ethylbenzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B
p,m-Xylene	ND	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B
o-Xylene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B
Total Xylenes	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B
Total BTEX	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B

Surrogate: 4-Bromochlorobenzene-PID      97.6 %      50-150      1846030      11/15/18      11/16/18      EPA 8021B

**Nonhalogenated Organics by 8015**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D

Surrogate: 1-Chloro-4-fluorobenzene-FID      105 %      50-150      1846030      11/15/18      11/16/18      EPA 8015D

Surrogate: n-Nonane      90.5 %      50-200      1846031      11/15/18      11/16/18      EPA 8015D

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:18
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**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 1846030 - Purge and Trap EPA 5030A**

<b>Blank (1846030-BLK1)</b>				Prepared: 11/14/18 1 Analyzed: 11/14/18 2						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7420		"	8000		92.7	50-150			

<b>LCS (1846030-BS1)</b>				Prepared: 11/14/18 1 Analyzed: 11/14/18 2						
Benzene	4930	100	ug/kg	5000	760	98.7	70-130			
Toluene	5030	100	"	5000	5710	101	70-130			
Ethylbenzene	5110	100	"	5000	2200	102	70-130			
p,m-Xylene	10500	200	"	10000	19500	105	70-130			
o-Xylene	5030	100	"	5000	3730	101	70-130			
Total Xylenes	15500	100	"	15000	23200	103	70-130			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7930		"	8000		99.2	50-150			

<b>Matrix Spike (1846030-MS1)</b>				Source: P811042-01		Prepared: 11/14/18 1 Analyzed: 11/14/18 2				
Benzene	5350	100	ug/kg	5000	760	91.9	54.3-133			
Toluene	10900	100	"	5000	5710	104	61.4-130			
Ethylbenzene	7100	100	"	5000	2200	98.1	61.4-133			
p,m-Xylene	29900	200	"	10000	19500	104	63.3-131			
o-Xylene	8640	100	"	5000	3730	98.2	63.3-131			
Total Xylenes	38500	100	"	15000	23200	102	63.3-131			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7320		"	8000		91.5	50-150			

<b>Matrix Spike Dup (1846030-MSD1)</b>				Source: P811042-01		Prepared: 11/14/18 1 Analyzed: 11/14/18 2				
Benzene	4990	100	ug/kg	5000	760	84.5	54.3-133	7.09	20	
Toluene	7900	100	"	5000	5710	43.9	61.4-130	31.8	20	D1, SPK1
Ethylbenzene	6280	100	"	5000	2200	81.8	61.4-133	12.2	20	
p,m-Xylene	23000	200	"	10000	19500	35.5	63.3-131	25.9	20	D1, SPK1
o-Xylene	7340	100	"	5000	3730	72.3	63.3-131	16.2	20	
Total Xylenes	30400	100	"	15000	23200	47.7	63.3-131	23.7	20	D1, SPK1
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	8000		"	8000		100	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:18
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**Nonhalogenated Organics by 8015 - 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 1846030 - Purge and Trap EPA 5030A**

<b>Blank (1846030-BLK1)</b>				Prepared: 11/14/18 1 Analyzed: 11/14/18 2						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.45		"	8.00		106	50-150			

<b>LCS (1846030-BS2)</b>				Prepared: 11/14/18 1 Analyzed: 11/14/18 2						
Gasoline Range Organics (C6-C10)	51.4	20.0	mg/kg	50.0		103	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		"	8.00		106	50-150			

<b>Matrix Spike (1846030-MS2)</b>				<b>Source: P811042-01</b>		Prepared: 11/14/18 1 Analyzed: 11/14/18 2				
Gasoline Range Organics (C6-C10)	427	20.0	mg/kg	50.0	344	166	70-130			SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	10.1		"	8.00		126	50-150			

<b>Matrix Spike Dup (1846030-MSD2)</b>				<b>Source: P811042-01</b>		Prepared: 11/14/18 1 Analyzed: 11/15/18 0				
Gasoline Range Organics (C6-C10)	287	20.0	mg/kg	50.0	344	NR	70-130	39.0	20	D1, SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	9.52		"	8.00		119	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:18
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**Nonhalogenated Organics by 8015 - 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 1846031 - DRO Extraction EPA 3570**

<b>Blank (1846031-BLK1)</b>		Prepared: 11/14/18 1 Analyzed: 11/14/18 2								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	42.4		"	50.0		84.7	50-200			
<b>LCS (1846031-BS1)</b>		Prepared: 11/14/18 1 Analyzed: 11/14/18 2								
Diesel Range Organics (C10-C28)	431	25.0	mg/kg	500		86.3	38-132			
Surrogate: n-Nonane	40.6		"	50.0		81.2	50-200			
<b>Matrix Spike (1846031-MS1)</b>		<b>Source: P811042-01</b>		Prepared: 11/14/18 1 Analyzed: 11/15/18 1						
Diesel Range Organics (C10-C28)	686	25.0	mg/kg	500	252	86.8	38-132			
Surrogate: n-Nonane	55.5		"	50.0		111	50-200			
<b>Matrix Spike Dup (1846031-MSD1)</b>		<b>Source: P811042-01</b>		Prepared: 11/14/18 1 Analyzed: 11/15/18 1						
Diesel Range Organics (C10-C28)	661	25.0	mg/kg	500	252	81.9	38-132	3.62	20	
Surrogate: n-Nonane	56.0		"	50.0		112	50-200			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:18
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**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 1846044 - Anion Extraction EPA 300.0/9056A**

<b>Blank (1846044-BLK1)</b>				Prepared: 11/16/18 0 Analyzed: 11/16/18 1						
Chloride	ND	20.0	mg/kg							
<b>LCS (1846044-BS1)</b>				Prepared: 11/16/18 0 Analyzed: 11/16/18 1						
Chloride	258	20.0	mg/kg	250		103	90-110			
<b>Matrix Spike (1846044-MS1)</b>				<b>Source: P811048-01</b>		Prepared: 11/16/18 0 Analyzed: 11/16/18 1				
Chloride	266	20.0	mg/kg	250	ND	106	80-120			
<b>Matrix Spike Dup (1846044-MSD1)</b>				<b>Source: P811048-01</b>		Prepared: 11/16/18 0 Analyzed: 11/16/18 1				
Chloride	265	20.0	mg/kg	250	ND	106	80-120	0.490	20	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:18
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**Notes and Definitions**

- SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
- SPK1 The spike recovery is outside of quality control limits.
- D1 Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
- 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.

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Client: <u>BPX ENERGY</u>		Report Attention		Lab Use Only			TAT		EPA Program		
Project: <u>GAGE COM 1M</u>		Report due by: <u>NOV. 16, 2018</u>		Lab WO# <u>P811480</u> Job Number <u>031143-0424</u>			1D	3D	RCRA	CWA	SDWA
Project Manager: <u>STEVE MOSKAL</u>		Attention: <u>STEVE MOSKAL + JEFF BLAGG</u>		<u>049</u>			Analysis and Method			State	
Address:		Address:								NM CO UT AZ	
City, State, Zip		City, State, Zip								X	
Phone: <u>(505) 330-9179</u>		Phone: <u>(505) 320-1183</u>									
Email: <u>STEVEN.MOSKAL@BPX.COM</u>		Email: <u>jeffcblagg@AOL.COM</u>									

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
1327	11/15/2018	SOIL	1	WEST Wall (6'-14')	1	X	X	X			X		
1330			1	SOUTH Wall (6'-14')	2								
1335			1	NORTH Wall (6'-14')	3								
1341			1	EAST Wall (6'-14')	4								
1342			1	BASE @ 16'	5								

Additional Instructions: Bill BP. PO: 4300994094 Vis ice in cooler

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: Jeff Blagg

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) <u>Jeff Blagg</u>	Date <u>11/15/2018</u>	Time <u>1520</u>	Received by: (Signature) <u>Steve Moskal</u>	Date <u>11/15/18</u>	Time <u>1520</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only		
Received on ice:	<u>Y</u> / N	
T1	T2	T3
AVG Temp °C <u>1.0</u>		

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Notes: 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.

## Analytical Report

### Report Summary

Client: BP America Production Co.  
Chain Of Custody Number:  
Samples Received: 11/15/2018 3:20:00PM  
Job Number: 03143-0424  
Work Order: P811048  
Project Name/Location: Gage Com 1M

Report Reviewed By:



Date: 11/19/18

Walter Hinchman, Laboratory Director



Date: 11/19/18

Tim Cain, Project Manager



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, 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: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:16
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP-1	P811048-01A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
TSP-2	P811048-02A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
TSP-3	P811048-03A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
TSP-4	P811048-04A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.
TSP-5	P811048-05A	Soil	11/15/18	11/15/18	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:16
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**TSP-1**  
**P811048-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	<b>4150</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	<b>3290</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	<b>32900</b>	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	<b>9460</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	<b>42300</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	<b>49800</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		115 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	<b>428</b>	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	<b>1480</b>	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	<b>65.1</b>	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		127 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		195 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:16
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**TSP-2**  
**P811048-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	2170	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	2000	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	21700	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	5150	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	26800	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	31000	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		110 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	300	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	1070	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	75.5	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		121 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		161 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:16
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**TSP-3**  
**P811048-03 (Solid)**

Analyte	Reporting								
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	203	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	366	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	4480	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	979	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	5460	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	6030	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.4 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	94.4	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	389	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		112 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		114 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:16
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**TSP-4**  
**P811048-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatiles Organics by EPA 8021**

Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	<b>642</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	<b>996</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	<b>11500</b>	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	<b>2670</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	<b>14200</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	<b>15800</b>	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	

*Surrogate: 4-Bromochlorobenzene-PID*      102 %      50-150      1846030      11/15/18      11/16/18      EPA 8021B

**Nonhalogenated Organics by 8015**

Gasoline Range Organics (C6-C10)	<b>194</b>	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	<b>486</b>	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	

*Surrogate: 1-Chloro-4-fluorobenzene-FID*      122 %      50-150      1846030      11/15/18      11/16/18      EPA 8015D

*Surrogate: n-Nonane*      120 %      50-200      1846031      11/15/18      11/16/18      EPA 8015D

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/19/18 11:16
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**TSP-5**  
**P811048-05 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Toluene	2120	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Ethylbenzene	1960	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
p,m-Xylene	20600	200	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
o-Xylene	6110	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total Xylenes	26800	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
Total BTEX	30800	100	ug/kg	1	1846030	11/15/18	11/16/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		109 %		50-150	1846030	11/15/18	11/16/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	264	20.0	mg/kg	1	1846030	11/15/18	11/16/18	EPA 8015D	
Diesel Range Organics (C10-C28)	580	25.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1846031	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		116 %		50-150	1846030	11/15/18	11/16/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		132 %		50-200	1846031	11/15/18	11/16/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1846044	11/16/18	11/16/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:16
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**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 1846030 - Purge and Trap EPA 5030A**

<b>Blank (1846030-BLK1)</b>			Prepared: 11/14/18 1 Analyzed: 11/14/18 2							
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	7420		"	8000		92.7	50-150			

<b>LCS (1846030-BS1)</b>			Prepared: 11/14/18 1 Analyzed: 11/14/18 2							
Benzene	4930	100	ug/kg	5000		98.7	70-130			
Toluene	5030	100	"	5000		101	70-130			
Ethylbenzene	5110	100	"	5000		102	70-130			
p,m-Xylene	10500	200	"	10000		105	70-130			
o-Xylene	5030	100	"	5000		101	70-130			
Total Xylenes	15500	100	"	15000		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7930		"	8000		99.2	50-150			

<b>Matrix Spike (1846030-MS1)</b>			Source: P811042-01		Prepared: 11/14/18 1 Analyzed: 11/14/18 2					
Benzene	5350	100	ug/kg	5000	760	91.9	54.3-133			
Toluene	10900	100	"	5000	5710	104	61.4-130			
Ethylbenzene	7100	100	"	5000	2200	98.1	61.4-133			
p,m-Xylene	29900	200	"	10000	19500	104	63.3-131			
o-Xylene	8640	100	"	5000	3730	98.2	63.3-131			
Total Xylenes	38500	100	"	15000	23200	102	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7320		"	8000		91.5	50-150			

<b>Matrix Spike Dup (1846030-MSD1)</b>			Source: P811042-01		Prepared: 11/14/18 1 Analyzed: 11/14/18 2					
Benzene	4990	100	ug/kg	5000	760	84.5	54.3-133	7.09	20	
Toluene	7900	100	"	5000	5710	43.9	61.4-130	31.8	20	D1, SPK1
Ethylbenzene	6280	100	"	5000	2200	81.8	61.4-133	12.2	20	
p,m-Xylene	23000	200	"	10000	19500	35.5	63.3-131	25.9	20	D1, SPK1
o-Xylene	7340	100	"	5000	3730	72.3	63.3-131	16.2	20	
Total Xylenes	30400	100	"	15000	23200	47.7	63.3-131	23.7	20	D1, SPK1
Surrogate: 4-Bromochlorobenzene-PID	8000		"	8000		100	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:16
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**Nonhalogenated Organics by 8015 - 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 1846030 - Purge and Trap EPA 5030A**

<b>Blank (1846030-BLK1)</b>		Prepared: 11/14/18 1 Analyzed: 11/14/18 2								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.45		"	8.00		106	50-150			
<b>LCS (1846030-BS2)</b>		Prepared: 11/14/18 1 Analyzed: 11/14/18 2								
Gasoline Range Organics (C6-C10)	51.4	20.0	mg/kg	50.0		103	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		"	8.00		106	50-150			
<b>Matrix Spike (1846030-MS2)</b>		<b>Source: P811042-01</b>		Prepared: 11/14/18 1 Analyzed: 11/14/18 2						
Gasoline Range Organics (C6-C10)	427	20.0	mg/kg	50.0	344	166	70-130			SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	10.1		"	8.00		126	50-150			
<b>Matrix Spike Dup (1846030-MSD2)</b>		<b>Source: P811042-01</b>		Prepared: 11/14/18 1 Analyzed: 11/15/18 0						
Gasoline Range Organics (C6-C10)	287	20.0	mg/kg	50.0	344	NR	70-130	39.0	20	D1, SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	9.52		"	8.00		119	50-150			

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

 Project Name: Gage Com 1M  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 11/19/18 11:16

**Nonhalogenated Organics by 8015 - 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 1846031 - DRO Extraction EPA 3570**
**Blank (1846031-BLK1)**

Prepared: 11/14/18 1 Analyzed: 11/14/18 2

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: <i>n</i> -Nonane	42.4		"	50.0		84.7	50-200			

**LCS (1846031-BS1)**

Prepared: 11/14/18 1 Analyzed: 11/14/18 2

Diesel Range Organics (C10-C28)	431	25.0	mg/kg	500		86.3	38-132			
Surrogate: <i>n</i> -Nonane	40.6		"	50.0		81.2	50-200			

**Matrix Spike (1846031-MS1)**

Source: P811042-01

Prepared: 11/14/18 1 Analyzed: 11/15/18 1

Diesel Range Organics (C10-C28)	686	25.0	mg/kg	500	252	86.8	38-132			
Surrogate: <i>n</i> -Nonane	55.5		"	50.0		111	50-200			

**Matrix Spike Dup (1846031-MSD1)**

Source: P811042-01

Prepared: 11/14/18 1 Analyzed: 11/15/18 1

Diesel Range Organics (C10-C28)	661	25.0	mg/kg	500	252	81.9	38-132	3.62	20	
Surrogate: <i>n</i> -Nonane	56.0		"	50.0		112	50-200			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:16
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**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 1846044 - Anion Extraction EPA 300.0/9056A**

<b>Blank (1846044-BLK1)</b>				Prepared: 11/16/18 0 Analyzed: 11/16/18 1						
Chloride	ND	20.0	mg/kg							
<b>LCS (1846044-BS1)</b>				Prepared: 11/16/18 0 Analyzed: 11/16/18 1						
Chloride	258	20.0	mg/kg	250		103	90-110			
<b>Matrix Spike (1846044-MS1)</b>				<b>Source: P811048-01</b>		Prepared: 11/16/18 0 Analyzed: 11/16/18 1				
Chloride	266	20.0	mg/kg	250	ND	106	80-120			
<b>Matrix Spike Dup (1846044-MSD1)</b>				<b>Source: P811048-01</b>		Prepared: 11/16/18 0 Analyzed: 11/16/18 1				
Chloride	265	20.0	mg/kg	250	ND	106	80-120	0.490	20	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/19/18 11:16
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**Notes and Definitions**

- SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
- SPK1 The spike recovery is outside of quality control limits.
- D1 Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
- 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.

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Client: <u>BPX ENERGY</u>		Report Attention		Lab Use Only			TAT		EPA Program												
Project: <u>GAGE COM 1M</u>		Report due by: <u>Nov 16, 2018</u>		Lab WO# <u>P941048</u>		Job Number <u>D31413-0424</u>		1D	3D	RCRA	CWA	SDWA									
Project Manager: <u>STEVE MOSKAL</u>		Attention: <u>steve Moskal + Jeff Blagg</u>		Analysis and Method									State								
Address:		Address:		DRO/DRO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0 TPH 418.1									NM	CO	UT	AZ					
City, State, Zip		City, State, Zip											X								
Phone: <u>(505) 330-9179</u>		Phone: <u>(505) 320-1183</u>																			
Email: <u>STEVEN.MOSKAL@BPX.COM</u>		Email: <u>jeffc.blagg@AOL.COM</u>																			

Page 13 of 13

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	TPH 418.1	Remarks
1400	11/15/2018	SOIL	1	TSP-1	1	X	X	X			X		
1404			1	TSP-2	2								
1408			1	TSP-3	3								
1411			1	TSP-4	4								
1414			1	TSP-5	5								

Additional Instructions: BILL BR PO: 4300994094 Vis ice in cooler

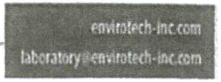
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Jeff Blagg

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) <u>Jeff Blagg</u>	Date <u>11/15/2018</u>	Time <u>1520</u>	Received by: (Signature)	Date	Time	Lab Use Only			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <u>Y</u> N	T1	T2	T3
						AVG Temp °C <u>20</u>			

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.



## Analytical Report

### Report Summary

Client: BP America Production Co.  
Chain Of Custody Number:  
Samples Received: 11/20/2018 8:58:00AM  
Job Number: 03143-0424  
Work Order: P811059  
Project Name/Location: Gage Com 1M

Report Reviewed By:



Date: 11/26/18

Walter Hinchman, Laboratory Director



Date: 11/26/18

Tim Cain, Project Manager



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, 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: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:44
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP- 1R	P811059-01A	Soil	11/20/18	11/20/18	Glass Jar, 4 oz.
TSP- 2R	P811059-02A	Soil	11/20/18	11/20/18	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:44
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**TSP- 1R**  
**P811059-01 (Solid)**

Analyte	Reporting							
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

**Volatile Organics by EPA 8021**

Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Toluene	219	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Ethylbenzene	364	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
p,m-Xylene	7890	200	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
o-Xylene	3140	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Total Xylenes	11000	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Total BTEX	11600	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %		50-150	1847017	11/20/18	11/20/18	EPA 8021B	

**Nonhalogenated Organics by 8015**

Gasoline Range Organics (C6-C10)	184	20.0	mg/kg	1	1847017	11/20/18	11/20/18	EPA 8015D	
Diesel Range Organics (C10-C28)	875	25.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		121 %		50-150	1847017	11/20/18	11/20/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		146 %		50-200	1847006	11/19/18	11/21/18	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1847012	11/20/18	11/20/18	EPA 300.0/9056A	
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:44
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**TSP- 2R**  
**P811059-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Toluene	124	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Ethylbenzene	367	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
p,m-Xylene	4960	200	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
o-Xylene	1970	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Total Xylenes	6930	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
Total BTEX	7420	100	ug/kg	1	1847017	11/20/18	11/20/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1847017	11/20/18	11/20/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	144	20.0	mg/kg	1	1847017	11/20/18	11/20/18	EPA 8015D	
Diesel Range Organics (C10-C28)	639	25.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		119 %		50-150	1847017	11/20/18	11/20/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		124 %		50-200	1847006	11/19/18	11/21/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1847012	11/20/18	11/20/18	EPA 300.0/9056A	

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

Project Name: Gage Com 1M  
Project Number: 03143-0424  
Project Manager: Steve Moskal

Reported:  
11/26/18 16:44

**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 1847017 - Purge and Trap EPA 5030A**

**Blank (1847017-BLK1)**

Prepared: 11/20/18 0 Analyzed: 11/20/18 1

Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	7900		"	8000		98.8	50-150			

**LCS (1847017-BS1)**

Prepared: 11/20/18 0 Analyzed: 11/20/18 1

Benzene	5070	100	ug/kg	5000		101	70-130			
Toluene	5180	100	"	5000		104	70-130			
Ethylbenzene	5260	100	"	5000		105	70-130			
p,m-Xylene	10800	200	"	10000		108	70-130			
o-Xylene	5230	100	"	5000		105	70-130			
Total Xylenes	16000	100	"	15000		107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7980		"	8000		99.8	50-150			

**Matrix Spike (1847017-MS1)**

Source: P811050-01

Prepared: 11/20/18 0 Analyzed: 11/21/18 0

Benzene	5370	100	ug/kg	5000	ND	107	54.3-133			
Toluene	5500	100	"	5000	ND	110	61.4-130			
Ethylbenzene	5600	100	"	5000	ND	112	61.4-133			
p,m-Xylene	11400	200	"	10000	ND	114	63.3-131			
o-Xylene	5520	100	"	5000	ND	110	63.3-131			
Total Xylenes	17000	100	"	15000	ND	113	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8000		"	8000		100	50-150			

**Matrix Spike Dup (1847017-MSD1)**

Source: P811050-01

Prepared: 11/20/18 0 Analyzed: 11/20/18 2

Benzene	5270	100	ug/kg	5000	ND	105	54.3-133	1.89	20	
Toluene	5410	100	"	5000	ND	108	61.4-130	1.76	20	
Ethylbenzene	5510	100	"	5000	ND	110	61.4-133	1.54	20	
p,m-Xylene	11300	200	"	10000	ND	113	63.3-131	1.43	20	
o-Xylene	5470	100	"	5000	ND	109	63.3-131	0.982	20	
Total Xylenes	16800	100	"	15000	ND	112	63.3-131	1.28	20	
Surrogate: 4-Bromochlorobenzene-PID	8130		"	8000		102	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 11/26/18 16:44
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**Nonhalogenated Organics by 8015 - 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 1847006 - DRO Extraction EPA 3570**

<b>Blank (1847006-BLK1)</b>		Prepared: 11/19/18 1 Analyzed: 11/19/18 2								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	44.4		"	50.0		88.8	50-200			
<b>LCS (1847006-BS1)</b>		Prepared: 11/19/18 1 Analyzed: 11/20/18 0								
Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500		95.8	38-132			
Surrogate: n-Nonane	43.6		"	50.0		87.2	50-200			
<b>Matrix Spike (1847006-MS1)</b>		<b>Source: P811041-01</b>		Prepared: 11/19/18 1 Analyzed: 11/20/18 0						
Diesel Range Organics (C10-C28)	474	25.0	mg/kg	500	ND	94.7	38-132			
Surrogate: n-Nonane	39.5		"	50.0		79.0	50-200			
<b>Matrix Spike Dup (1847006-MSD1)</b>		<b>Source: P811041-01</b>		Prepared: 11/19/18 1 Analyzed: 11/20/18 0						
Diesel Range Organics (C10-C28)	502	25.0	mg/kg	500	ND	100	38-132	5.92	20	
Surrogate: n-Nonane	40.5		"	50.0		80.9	50-200			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:44
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**Nonhalogenated Organics by 8015 - 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 1847017 - Purge and Trap EPA 5030A**

<b>Blank (1847017-BLK1)</b>				Prepared: 11/20/18 0 Analyzed: 11/20/18 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.45		"	8.00		106	50-150			

<b>LCS (1847017-BS2)</b>				Prepared: 11/20/18 0 Analyzed: 11/20/18 2						
Gasoline Range Organics (C6-C10)	53.2	20.0	mg/kg	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.46		"	8.00		106	50-150			

<b>Matrix Spike (1847017-MS2)</b>				<b>Source: P811050-01</b>		Prepared: 11/20/18 0 Analyzed: 11/20/18 2				
Gasoline Range Organics (C6-C10)	53.1	20.0	mg/kg	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.37		"	8.00		105	50-150			

<b>Matrix Spike Dup (1847017-MSD2)</b>				<b>Source: P811050-01</b>		Prepared: 11/20/18 0 Analyzed: 11/20/18 2				
Gasoline Range Organics (C6-C10)	45.0	20.0	mg/kg	50.0	ND	90.1	70-130	16.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.54		"	8.00		107	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:44
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**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 1847012 - Anion Extraction EPA 300.0/9056A**

<b>Blank (1847012-BLK1)</b>				Prepared & Analyzed: 11/19/18 1						
Chloride	ND	20.0	mg/kg							
<b>LCS (1847012-BS1)</b>				Prepared & Analyzed: 11/19/18 1						
Chloride	255	20.0	mg/kg	250		102	90-110			
<b>Matrix Spike (1847012-MS1)</b>				Source: P811050-01		Prepared & Analyzed: 11/19/18 1				
Chloride	333	20.0	mg/kg	250	73.8	104	80-120			
<b>Matrix Spike Dup (1847012-MSD1)</b>				Source: P811050-01		Prepared & Analyzed: 11/19/18 1				
Chloride	332	20.0	mg/kg	250	73.8	103	80-120	0.457	20	

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

Project Name: Gage Com 1M  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
11/26/18 16:44

### 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.

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Client: <u>BPX Energy</u>		Report Attention		Lab Use Only			TAT		EPA Program					
Project: <u>GAGE COM 1M</u>		Report due by: <u>11/21/2018</u>		Lab WO# <u>P811059</u>		Job Number <u>03143-0424</u>		1D	3D	RCRA	CWA	SDWA		
Project Manager: <u>Steve Maskal</u>		Attention: <u>Steve Maskal / Jeff Blagg</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>								
Address:		Address:		Analysis and Method								State		
City, State, Zip		City, State, Zip		DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	NM	CO	UT	AZ
Phone: <u>505-330-9179</u>		Phone: <u>505-320-1193</u>									<input checked="" type="checkbox"/>			
Email: <u>steve.maskal@BPX.com</u>		Email: <u>jeff.blagg@AOL.com</u>										Remarks		

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	TPH 418.1	Remarks
080Z	11/20/18	SOIL	1	TSP-1R	1	X	X	X			X		Glass Jar 4oz
0805	"	"	1	TSP-2R	2	X	X	X			X		Glass Jar 4oz

**Additional Instructions:** Bill BP PO: 4300994094 vis Ice in cooler

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: Jeff Blagg

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) <u>Jeff Blagg</u>	Date <u>11/20/18</u>	Time <u>0858</u>	Received by: (Signature) <u>Jessica A. ...</u>	Date <u>11/20/18</u>	Time <u>08:58</u>	Lab Use Only
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <input checked="" type="checkbox"/> Y / N
						T1 _____ T2 _____ T3 _____
						AVG Temp °C <u>9</u>

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.



## Analytical Report

### Report Summary

Client: BP America Production Co.

Chain Of Custody Number:

Samples Received: 11/26/2018 10:30:00AM

Job Number: 03143-0424

Work Order: P811069

Project Name/Location: Gage Com 1M

Report Reviewed By:



Date: 11/28/18

Walter Hinchman, Laboratory Director



Date: 11/28/18

Tim Cain, Project Manager



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

BP America Production Co.	Project Name:	Gage Com 1M	<b>Reported:</b> 11/28/18 16:52
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP-1R	P811069-01A	Soil	11/26/18	11/26/18	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/28/18 16:52
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**TSP-1R**  
**P811069-01 (Solid)**

Analyte	Reporting							
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

**Nonhalogenated Organics by 8015**

Gasoline Range Organics (C6-C10)	<b>89.0</b>	20.0	mg/kg	1	1848003	11/26/18	11/26/18	EPA 8015D	
Diesel Range Organics (C10-C28)	<b>434</b>	25.0	mg/kg	1	1848004	11/26/18	11/26/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1848004	11/26/18	11/26/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		114 %		50-150	1848003	11/26/18	11/26/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		117 %		50-200	1848004	11/26/18	11/26/18	EPA 8015D	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/28/18 16:52
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**Nonhalogenated Organics by 8015 - 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 1848003 - Purge and Trap EPA 5030A**

<b>Blank (1848003-BLK1)</b>										
										Prepared & Analyzed: 11/26/18 1
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.49		"	8.00		106	50-150			
<b>LCS (1848003-BS2)</b>										
										Prepared & Analyzed: 11/26/18 1
Gasoline Range Organics (C6-C10)	47.8	20.0	mg/kg	50.0		95.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.49		"	8.00		106	50-150			
<b>Matrix Spike (1848003-MS2)</b>										
										Source: P811052-01
										Prepared & Analyzed: 11/26/18 1
Gasoline Range Organics (C6-C10)	45.8	20.0	mg/kg	50.0	ND	91.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.55		"	8.00		107	50-150			
<b>Matrix Spike Dup (1848003-MSD2)</b>										
										Source: P811052-01
										Prepared & Analyzed: 11/26/18 1
Gasoline Range Organics (C6-C10)	45.7	20.0	mg/kg	50.0	ND	91.3	70-130	0.366	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		"	8.00		106	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/28/18 16:52
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**Nonhalogenated Organics by 8015 - 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 1848004 - DRO Extraction EPA 3570**

<b>Blank (1848004-BLK1)</b>		Prepared & Analyzed: 11/26/18 1								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: <i>n</i> -Nonane	44.8		"	50.0		89.6	50-200			
<b>LCS (1848004-BS1)</b>		Prepared & Analyzed: 11/26/18 1								
Diesel Range Organics (C10-C28)	480	25.0	mg/kg	500		96.0	38-132			
Surrogate: <i>n</i> -Nonane	45.8		"	50.0		91.5	50-200			
<b>Matrix Spike (1848004-MS1)</b>		Source: P811066-01		Prepared & Analyzed: 11/26/18 1						
Diesel Range Organics (C10-C28)	1720	25.0	mg/kg	500	1260	91.6	38-132			
Surrogate: <i>n</i> -Nonane	54.0		"	50.0		108	50-200			
<b>Matrix Spike Dup (1848004-MSD1)</b>		Source: P811066-01		Prepared: 11/26/18 1 Analyzed: 11/27/18 1						
Diesel Range Organics (C10-C28)	2940	25.0	mg/kg	500	1260	336	38-132	52.4	20	D1, SPK1
Surrogate: <i>n</i> -Nonane	56.9		"	50.0		114	50-200			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/28/18 16:52
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**Notes and Definitions**

- SPK1 The spike recovery is outside of quality control limits.
- D1 Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
- 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.

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## Analytical Report

### Report Summary

Client: BP America Production Co.  
Chain Of Custody Number:  
Samples Received: 1/9/2019 2:24:00PM  
Job Number: 03143-0424  
Work Order: P901014  
Project Name/Location: Gage Com 1M

Report Reviewed By:



Date: 1/14/19

Walter Hinchman, Laboratory Director



Date: 1/14/19

Tim Cain, Project Manager



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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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 01/14/19 17:25
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
East Vadose 5-pt	P901014-01A	Soil	01/09/19	01/09/19	Glass Jar, 4 oz.
West Vadose 5-pt	P901014-02A	Soil	01/09/19	01/09/19	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Gage Com 1M Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 01/14/19 17:25
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**East Vadose 5-pt  
P901014-01 (Solid)**

Analyte	Reporting								Notes
	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Toluene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	1902030	01/10/19	01/11/19	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1902030	01/10/19	01/11/19	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1902021	01/10/19	01/10/19	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1902021	01/10/19	01/10/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %		50-150	1902030	01/10/19	01/11/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		90.5 %		50-200	1902021	01/10/19	01/10/19	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	ND	20.0	mg/kg	1	1902025	01/10/19	01/10/19	EPA 300.0/9056A	

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**West Vadose 5-pt  
P901014-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatile Organics by EPA 8021**

Benzene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Toluene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1902030	01/10/19	01/11/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %		50-150	1902030	01/10/19	01/11/19	EPA 8021B	

**Nonhalogenated Organics by 8015**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1902030	01/10/19	01/11/19	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1902021	01/10/19	01/10/19	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1902021	01/10/19	01/10/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %		50-150	1902030	01/10/19	01/11/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		86.0 %		50-200	1902021	01/10/19	01/10/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1902025	01/10/19	01/10/19	EPA 300.0/9056A	
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**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 1902030 - Purge and Trap EPA 5030A**

<b>Blank (1902030-BLK1)</b>		Prepared: 01/10/19 1 Analyzed: 01/11/19 0								
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	8170		"	8000		102	50-150			

<b>LCS (1902030-BS1)</b>		Prepared: 01/10/19 1 Analyzed: 01/11/19 0								
Benzene	5060	100	ug/kg	5000		101	70-130			
Toluene	5090	100	"	5000		102	70-130			
Ethylbenzene	5160	100	"	5000		103	70-130			
p,m-Xylene	10500	200	"	10000		105	70-130			
o-Xylene	5120	100	"	5000		102	70-130			
Total Xylenes	15700	100	"	15000		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8260		"	8000		103	50-150			

<b>Matrix Spike (1902030-MS1)</b>		Source: P901014-01		Prepared: 01/10/19 1 Analyzed: 01/11/19 0						
Benzene	5130	100	ug/kg	5000	ND	103	54.3-133			
Toluene	5150	100	"	5000	ND	103	61.4-130			
Ethylbenzene	5210	100	"	5000	ND	104	61.4-133			
p,m-Xylene	10600	200	"	10000	ND	106	63.3-131			
o-Xylene	5170	100	"	5000	ND	103	63.3-131			
Total Xylenes	15800	100	"	15000	ND	105	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8270		"	8000		103	50-150			

<b>Matrix Spike Dup (1902030-MSD1)</b>		Source: P901014-01		Prepared: 01/10/19 1 Analyzed: 01/11/19 0						
Benzene	4120	100	ug/kg	5000	ND	82.5	54.3-133	21.8	20	D1
Toluene	4110	100	"	5000	ND	82.3	61.4-130	22.4	20	D1
Ethylbenzene	4140	100	"	5000	ND	82.8	61.4-133	22.8	20	D1
p,m-Xylene	8520	200	"	10000	ND	85.2	63.3-131	22.0	20	D1
o-Xylene	4230	100	"	5000	ND	84.6	63.3-131	20.0	20	
Total Xylenes	12800	100	"	15000	ND	85.0	63.3-131	21.3	20	D1
Surrogate: 4-Bromochlorobenzene-PID	8300		"	8000		104	50-150			

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**Nonhalogenated Organics by 8015 - 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 1902021 - DRO Extraction EPA 3570**

<b>Blank (1902021-BLK1)</b>		Prepared: 01/09/19 1 Analyzed: 01/09/19 2								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	47.0		"	50.0		94.0	50-200			
<b>LCS (1902021-BS1)</b>		Prepared: 01/09/19 1 Analyzed: 01/09/19 2								
Diesel Range Organics (C10-C28)	442	25.0	mg/kg	500		88.5	38-132			
Surrogate: n-Nonane	48.1		"	50.0		96.1	50-200			
<b>Matrix Spike (1902021-MS1)</b>		<b>Source: P901010-01</b>		Prepared: 01/09/19 1 Analyzed: 01/09/19 2						
Diesel Range Organics (C10-C28)	447	25.0	mg/kg	500	ND	89.4	38-132			
Surrogate: n-Nonane	48.7		"	50.0		97.3	50-200			
<b>Matrix Spike Dup (1902021-MSD1)</b>		<b>Source: P901010-01</b>		Prepared: 01/09/19 1 Analyzed: 01/10/19 0						
Diesel Range Organics (C10-C28)	449	25.0	mg/kg	500	ND	89.8	38-132	0.382	20	
Surrogate: n-Nonane	48.6		"	50.0		97.2	50-200			

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**Nonhalogenated Organics by 8015 - 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 1902030 - Purge and Trap EPA 5030A**

<b>Blank (1902030-BLK1)</b>		Prepared: 01/10/19 1 Analyzed: 01/11/19 0								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.42		"	8.00		105	50-150			
<b>LCS (1902030-BS2)</b>		Prepared: 01/10/19 1 Analyzed: 01/11/19 0								
Gasoline Range Organics (C6-C10)	40.2	20.0	mg/kg	50.0		80.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.52		"	8.00		106	50-150			
<b>Matrix Spike (1902030-MS2)</b>		<b>Source: P901014-01</b>		Prepared: 01/10/19 1 Analyzed: 01/11/19 0						
Gasoline Range Organics (C6-C10)	41.9	20.0	mg/kg	50.0	ND	83.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.44		"	8.00		105	50-150			
<b>Matrix Spike Dup (1902030-MSD2)</b>		<b>Source: P901014-01</b>		Prepared: 01/10/19 1 Analyzed: 01/11/19 0						
Gasoline Range Organics (C6-C10)	43.5	20.0	mg/kg	50.0	ND	87.0	70-130	3.65	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.60		"	8.00		107	50-150			

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**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 1902025 - Anion Extraction EPA 300.0/9056A**

<b>Blank (1902025-BLK1)</b>				Prepared: 01/10/19 0 Analyzed: 01/10/19 1						
Chloride	ND	20.0	mg/kg							
<b>LCS (1902025-BS1)</b>				Prepared: 01/10/19 0 Analyzed: 01/10/19 1						
Chloride	254	20.0	mg/kg	250		102	90-110			
<b>Matrix Spike (1902025-MS1)</b>				<b>Source: P901014-01</b>		Prepared: 01/10/19 0 Analyzed: 01/10/19 1				
Chloride	257	20.0	mg/kg	250	ND	103	80-120			
<b>Matrix Spike Dup (1902025-MSD1)</b>				<b>Source: P901014-01</b>		Prepared: 01/10/19 0 Analyzed: 01/10/19 1				
Chloride	258	20.0	mg/kg	250	ND	103	80-120	0.451	20	

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**Notes and Definitions**

- D1 Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
- 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.

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