

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

NCS 1831935656

### 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: 380 Airport Road, Durango CO, 81303		

### Location of Release Source

Latitude: 36.832213° Longitude: -107.563805°  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: NORTHEAST BLANCO UNIT #409A	Site Type: Natural Gas Production Well Pad
Date Release Discovered: October 16, 2018	API#: <u>30-039-29628</u>

Unit Letter	Section	Township	Range	County
D	10	T30N	R07W	San Juan

NMOCD

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

NOV 28 2018

### Nature and Volume of Release

DISTRICT III

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>7.5 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 type="checkbox"/> Condensate	Volume Released (bbls):	Volume Recovered (bbls):
<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 a 6" steel water transfer line in two locations, approximately 550' from one another. Suspect internal corrosion to be the cause. The line has since been removed from service.

Due to BP sampling the release area without required notification, the release was resampled under the supervision of the NMOCD on November 19th, 2018. Attached are the results and associated documentation.

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State of New Mexico  
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### 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:  The released water absorbed into the ground surface.	
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>November 27, 2018</u>
email: <u>steven.moskal@bpx.com</u>	Telephone: <u>(505) 330-9179</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

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## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>304</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 <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.

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

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

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



State of New Mexico  
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Printed Name: Steve Moskal Title: Environmental Coordinator

Signature:  Date: November 27, 2018

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

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_



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## Remediation Plan

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

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

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

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

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: \_\_\_\_\_

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

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

Incident ID	
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## 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: November 27, 2018

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

**\*\*Based on siting and lab results, no further action requested by BP.**

**The area of release was resampled and witnessed by the NMOCD on November 19th, 2018.**

**OCD Only**

Received by: Verossa Fields

Date: 11/28/2018

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: 11/8/2019

Printed Name: \_\_\_\_\_

Title: Environmental Specialist



# New Mexico Office of the State Engineer

## Wells with Well Log Information

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-Code	basin	County	Source	q	q	q	64	16	4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
<a href="#">SJ 03640</a>		SJ	RA	Shallow	1	1	3	15	30N	07W				271072	4077061*	2333	03/25/2006	04/12/2006	06/02/2005	433	241	HARGIS, WILLIAM CALVIN	1508
<a href="#">SJ 02366</a>		SJ	RA	Shallow	1	3	15	30N	07W					271062	4077047	2348	03/20/1992	06/03/1992	06/15/1992	345	225	RILEY, JAY	1223
<a href="#">SJ 02698</a>		SJ	RA	Shallow	1	3	15	30N	07W					271173	4076962*	2418	05/02/1996	05/18/1996	05/31/1996	402	255	GLOVER, PAUL A.	1374
<a href="#">SJ 03946 POD1</a>		SJ	RA	Shallow	4	2	4	15	30N	07W				270941	4076902	2512	03/30/2011	04/03/2011	04/06/2011	455	285	HOOD, TERRY (LD)	717
<a href="#">SJ 04189 POD1</a>		SJAR	SJ	Shallow	1	2	3	33	31N	07W				270010	4082017	3015	06/27/2017	07/03/2017	07/14/2017	460	380	BAILEY, MARK	1357

**Record Count: 5**

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 271444.33

**Northing (Y):** 4079364.87

**Radius:** 3200

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/30/18 9:28 AM



## Analytical Report

### Report Summary

Client: BP America Production Co.

Chain Of Custody Number:

Samples Received: 10/17/2018 11:20:00AM

Job Number: 03143-0424

Work Order: P810087

Project Name/Location: NEBU 409A

Report Reviewed By:



Date: 10/24/18

Walter Hinchman, Laboratory Director



Date: 10/24/18

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: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS-01E Source	P810087-01A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-02E Mid	P810087-02A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-03E End	P810087-03A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-01W Source	P810087-04A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-02W Mid	P810087-05A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-03W End	P810087-06A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**SS-01E Source**  
**P810087-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		98.3 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		135 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	879	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**SS-02E Mid**  
**P810087-02 (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	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	50-150		1842026	10/19/18	10/22/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.7 %	50-150		1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		132 %	50-200		1842028	10/19/18	10/19/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	625	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**SS-03E End**  
**P810087-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		99.1 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
Surrogate: n-Nonane		133 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	449	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**SS-01W Source**  
**P810087-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.1 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		136 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	760	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**SS-02W Mid**  
**P810087-05 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	50-150		1842026	10/19/18	10/22/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		99.6 %	50-150		1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		137 %	50-200		1842028	10/19/18	10/19/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	1190	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**SS-03W End**  
**P810087-06 (Solid)**

## Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	50-150		1842026	10/19/18	10/22/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.5 %	50-150		1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		130 %	50-200		1842028	10/19/18	10/19/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	415	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

Project Name: NEBU 409A  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
10/24/18 16:42

### 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 1842026 - Purge and Trap EPA 5030A

##### Blank (1842026-BLK1)

Prepared: 10/18/18 1 Analyzed: 10/19/18 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	7990		"	8000		99.9	50-150			

##### LCS (1842026-BS1)

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Benzene	5460	100	ug/kg	5000		109	70-130			
Toluene	5520	100	"	5000		110	70-130			
Ethylbenzene	5570	100	"	5000		111	70-130			
p,m-Xylene	11400	200	"	10000		114	70-130			
o-Xylene	5480	100	"	5000		110	70-130			
Total Xylenes	16900	100	"	15000		113	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7900		"	8000		98.8	50-150			

##### Matrix Spike (1842026-MS1)

Source: P810093-01

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Benzene	5870	100	ug/kg	5000	ND	117	54.3-133			
Toluene	5890	100	"	5000	ND	118	61.4-130			
Ethylbenzene	5960	100	"	5000	ND	119	61.4-133			
p,m-Xylene	12200	200	"	10000	ND	122	63.3-131			
o-Xylene	5850	100	"	5000	ND	117	63.3-131			
Total Xylenes	18000	100	"	15000	ND	120	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7830		"	8000		97.9	50-150			

##### Matrix Spike Dup (1842026-MSD1)

Source: P810093-01

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Benzene	5750	100	ug/kg	5000	ND	115	54.3-133	2.05	20	
Toluene	5780	100	"	5000	ND	116	61.4-130	1.88	20	
Ethylbenzene	5850	100	"	5000	ND	117	61.4-133	1.89	20	
p,m-Xylene	11900	200	"	10000	ND	119	63.3-131	1.82	20	
o-Xylene	5740	100	"	5000	ND	115	63.3-131	1.92	20	
Total Xylenes	17700	100	"	15000	ND	118	63.3-131	1.85	20	
Surrogate: 4-Bromochlorobenzene-PID	7840		"	8000		98.1	50-150			

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**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 1842026 - Purge and Trap EPA 5030A**
**Blank (1842026-BLK1)**

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.77		"	8.00		97.1	50-150			

**LCS (1842026-BS2)**

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Gasoline Range Organics (C6-C10)	42.5	20.0	mg/kg	50.0		85.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		"	8.00		100	50-150			

**Matrix Spike (1842026-MS2)**

Source: P810093-01

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Gasoline Range Organics (C6-C10)	50.9	20.0	mg/kg	50.0	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.80		"	8.00		97.5	50-150			

**Matrix Spike Dup (1842026-MSD2)**

Source: P810093-01

Prepared: 10/18/18 1 Analyzed: 10/19/18 1

Gasoline Range Organics (C6-C10)	50.3	20.0	mg/kg	50.0	ND	101	70-130	1.00	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.13		"	8.00		102	50-150			

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

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**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 1842028 - DRO Extraction EPA 3570**
**Blank (1842028-BLK1)**

Prepared: 10/19/18 0 Analyzed: 10/22/18 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: <i>n</i> -Nonane	60.4		"	50.0		121	50-200			

**LCS (1842028-BS1)**

Prepared: 10/19/18 0 Analyzed: 10/19/18 1

Diesel Range Organics (C10-C28)	476	25.0	mg/kg	500		95.2	38-132			
Surrogate: <i>n</i> -Nonane	60.5		"	50.0		121	50-200			

**Matrix Spike (1842028-MS1)**
**Source: P810094-01**

Prepared: 10/19/18 0 Analyzed: 10/19/18 1

Diesel Range Organics (C10-C28)	474	25.0	mg/kg	500	ND	94.8	38-132			
Surrogate: <i>n</i> -Nonane	62.5		"	50.0		125	50-200			

**Matrix Spike Dup (1842028-MSD1)**
**Source: P810094-01**

Prepared: 10/19/18 0 Analyzed: 10/19/18 1

Diesel Range Organics (C10-C28)	506	25.0	mg/kg	500	ND	101	38-132	6.41	20	
Surrogate: <i>n</i> -Nonane	62.9		"	50.0		126	50-200			

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BP America Production Co.  
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 Tulsa OK, 74121-2024

 Project Name: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 10/24/18 16:42

**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 1843008 - Anion Extraction EPA 300.0/9056A**
**Blank (1843008-BLK1)**

Prepared &amp; Analyzed: 10/23/18 1

Chloride ND 20.0 mg/kg

**LCS (1843008-BS1)**

Prepared &amp; Analyzed: 10/23/18 1

Chloride 256 20.0 mg/kg 250 102 90-110

**Matrix Spike (1843008-MS1)**
**Source: P810085-01**

Prepared &amp; Analyzed: 10/23/18 1

Chloride 775 20.0 mg/kg 250 530 97.9 80-120

**Matrix Spike Dup (1843008-MSD1)**
**Source: P810085-01**

Prepared &amp; Analyzed: 10/23/18 1

Chloride 751 20.0 mg/kg 250 530 88.5 80-120 3.08 20

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

Project Name: NEBU 409A  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
10/24/18 16:42

#### 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>DE</u>		Report Attention		Lab Use Only		TAT		EPA Program						
Project: <u>NEBU 409A</u>		Report due by: <u>Standard TAT</u>		Lab WO# <u>P810087</u>		Job Number <u>03143-0424</u>		1D	3D	RCRA	CWA	SDWA		
Project Manager: <u>Steve Maskal</u>		Attention: <u>Steve Maskal</u>		Analysis and Method								State		
Address: <u>380 N Airport Rd</u>		Address:										NM		
City, State, Zip: <u>Durango CO 81303</u>		City, State, Zip:		QRO/ORO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0 TPH 418.1								<input checked="" type="checkbox"/>		
Phone: <u>505-330-9179</u>		Phone:												
Email: <u>steve.maskal@epa.com</u>		Email:												

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	QRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1							Remarks
1330	10/16/18	Soil	1-4oz	SS-01E Source	1	X	X	X			X								
1335				SS-02E Mid	2	X	X	X			X								
1340				SS-03E End	3	X	X	X			X								
1400				SS-01W Source	4	X	X	X			X								
1405				SS-02W Mid	5	X	X	X			X								
1410				SS-03W End	6	X	X	X			X								

## Additional Instructions:

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: Steve Maskal

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</u> / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
<u>Steve Maskal</u>	10/17/18	11:20	<u>DEL</u>	10/17/18	11:20	
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.

## Analytical Report

### Report Summary

Client: BP America Production Co.

Chain Of Custody Number:

Samples Received: 11/19/2018 3:07:00PM

Job Number: 03143-0424

Work Order: P811058

Project Name/Location: NEBU 409A

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: NEBU 409A  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
11/26/18 16:35

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Release 10-pt Comp	P811058-01A	Soil	11/19/18	11/19/18	Glass Jar, 4 oz.
East Release 10-pt Comp	P811058-02A	Soil	11/19/18	11/19/18	Glass Jar, 4 oz.

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

Project Name: NEBU 409A  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
11/26/18 16:35

**West Release 10-pt Comp  
P811058-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.2 %		50-150	1847017	11/20/18	11/21/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1847017	11/20/18	11/21/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	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>		105 %		50-150	1847017	11/20/18	11/21/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		90.2 %		50-200	1847006	11/19/18	11/21/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	1600	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: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 11/26/18 16:35

**East Release 10-pt Comp  
 P811058-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organics by EPA 8021</b>									
Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.9 %		50-150	1847017	11/20/18	11/21/18	EPA 8021B	
<b>Nonhalogenated Organics by 8015</b>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1847017	11/20/18	11/21/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	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>		104 %		50-150	1847017	11/20/18	11/21/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		88.5 %		50-200	1847006	11/19/18	11/21/18	EPA 8015D	
<b>Anions by 300.0/9056A</b>									
Chloride	1580	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: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 11/26/18 16:35

**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: NEBU 409A  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
11/26/18 16:35

### 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

##### Blank (1847006-BLK1)

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: <i>n</i> -Nonane	44.4		"	50.0		88.8	50-200			

##### LCS (1847006-BS1)

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: <i>n</i> -Nonane	43.6		"	50.0		87.2	50-200			

##### Matrix Spike (1847006-MS1)

Source: P811041-01

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: <i>n</i> -Nonane	39.5		"	50.0		79.0	50-200			

##### Matrix Spike Dup (1847006-MSD1)

Source: P811041-01

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: <i>n</i> -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: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 11/26/18 16:35

**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**
**Blank (1847017-BLK1)**

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			

**LCS (1847017-BS2)**

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			

**Matrix Spike (1847017-MS2)**
**Source: P811050-01**

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			

**Matrix Spike Dup (1847017-MSD2)**
**Source: P811050-01**

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: NEBU 409A  
 Project Number: 03143-0424  
 Project Manager: Steve Moskal

**Reported:**  
 11/26/18 16:35

**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**
**Blank (1847012-BLK1)**

Prepared &amp; Analyzed: 11/19/18 1

Chloride ND 20.0 mg/kg

**LCS (1847012-BS1)**

Prepared &amp; Analyzed: 11/19/18 1

Chloride 255 20.0 mg/kg 250 102 90-110

**Matrix Spike (1847012-MS1)**
**Source: P811050-01**

Prepared &amp; Analyzed: 11/19/18 1

Chloride 333 20.0 mg/kg 250 73.8 104 80-120

**Matrix Spike Dup (1847012-MSD1)**
**Source: P811050-01**

Prepared &amp; 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: NEBU 409A  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
11/26/18 16:35

#### 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: BP AMERICA  
 Project: NEBU 409A  
 Project Manager: Steve Moskal  
 Address: \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone: (505) 330-9179  
 Email: STEVEN.MOSKAL@BPX.COM

## Report Attention

Report due by: STANDARD TAT  
 Attention: STEVEN MOSKAL / JEFF BLAGY  
 Address: \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone: (505) 320-1123  
 Email: jeffblagy@aol.com

## Lab Use Only

Lab WO# P811058  
 Job Number 03143-0424

## TAT

1D 3D

## EPA Program

RCRA CWA SDWA

## Analysis and Method

## State

NM CO UT AZ

X

## Remarks

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							
1058	11/19/2018	SOIL	1	WEST RELEASE 10-pt COMP	1	X	X	X			X								
1123	"	"	1	EAST RELEASE 10-pt COMP	2	X	X	X			X								

Additional Instructions: Bill PO. Issued by BP

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 Blagy

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 5 °C on subsequent days.

Relinquished by: (Signature) Jeff Blagy

Date

11/19/2018

Time

15:07

Received by: (Signature) Jessica G. [Signature]

Date

11/19/18

Time

15:07

Relinquished by: (Signature) \_\_\_\_\_

Date

Time

Received by: (Signature) \_\_\_\_\_

Date

Time

## Lab Use Only

Received on ice: Y / N

T1 \_\_\_\_\_ T2 \_\_\_\_\_ T3 \_\_\_\_\_

AVG Temp °C 4

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.



# Northeast Blanco Unit 409A

API# 30-045-29628

(D) S10, T30N, R07W

Eastern Release GPS:

36.832946°, -107.562141°

Western Release

36.832213°, -107.563805°

## Legend

- Release Point
- Release Extents
- Soil Sample Location



Google Earth

© 2018 Google

200 ft



# Northeast Blanco Unit 409A

AP# 30-045-29628

(D) S10, T30N, R07W

Eastern Release GPS:

36.832946°, -107.562141°

Western Release

36.832213°, -107.563805°

## Legend

- Release Point
- Release Extents
- Soil Sample Location

Western Release

SS-01W

SS-02W

SS-03W

Google Earth

© 2018 Google

100 ft





## Northeast Blanco Unit 409A

API# 30-045-29628

(D) S10, T30N, R07W




Eastern Release GPS:

36.832946°, -107.562141°

Western Release

36.832213°, -107.563805°

### Legend

-  Release Point
-  Release Extents
-  Soil Sample Location

SS-01E  
Eastern Release  
SS-02E  
SS-03E

Google Earth

© 2018 Google

100 ft





# Distance to Surface Water

350' Radius for each release

## Legend

- 350' Radius
- Feature 1
- Release Location

Western Release

Eastern Release

Google Earth

© 2018 Google

800 ft





# Northeast Blanco Unit 409A

API# 30-045-29628

(D) S10, T30N, R07W

Eastern Release GPS:

36.832946°, -107.562141°

Western Release

36.832213°, -107.563805°

## Legend

- Release Point
- Release Extents
- Soil Sample Location

Sampling - Nov 19, 2018  
x = 10-Point Composite  
Sampling Point

Western Release

SS-01W

SS-02W

SS-03W

Google Earth

© 2018 Google

100 ft





## Northeast Blanco Unit 409A

API# 30-045-29628

(D) S10, T30N, R07W




Eastern Release GPS:

36.832946°, -107.562141°

Western Release

36.832213°, -107.563805°

### Legend

-  Release Point
-  Release Extents
-  Soil Sample Location

Sampling - Nov 19, 2018  
x = 10-Point Composite  
Sampling Point

SS-01E x x x x  
Eastern Release  
SS-02E x x x x  
SS-03E

Google Earth

© 2018 Google

100 ft





# Distance to Water Well or Spring

1,000' Radius for each release

## Legend

- 1,000' Radius
- Release Location

Western Release

Eastern Release

527

Google Earth

© 2013 Google

1000 ft









## Water Well Info

SJ 03640 Distance of ~7,280 from release extents.  
SJ 03640 DTW - 241'  
SJ 03640 Surface Elevation - 6,266'  
NEBU 409A Surface Elevation - 6,329'  
Est. Depth to Water - 304'

## Legend

-  Distance of 7,281'
-  Release Location
-  SJ 03640
-  Soil Sample Location

