

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

**Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application**

Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: **BPX ENERGY INC. (formerly BP America Production Co.)** OGRID #: **778**
Address: **1199 Main Ave., Suite 101, Durango, CO 81301**
Facility or well name: **GALLEGOS CANYON UNIT 157**
API Number: **3004507067** OCD Permit Number: _____
U/L or Qtr/Qtr **B** Section **35.0** Township **28.0N** Range **13W** County: **San Juan County**
Center of Proposed Design: Latitude **36.62352** Longitude **-108.18774** NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC **Tank ID:** **B**
Volume: **95.0** bbl Type of fluid: **Produced Water**
Tank Construction material: **Steel**
☒ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other **DOUBLE WALLED DOUBLE BOTTOMED SIDEWALLS NOT VISIBLE**
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify _____

7.

Netting: Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other _____
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

- ☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

11.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

Proposed Closure: 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal

☐ Waste Removal (Closed-loop systems only)

☐ On-site Closure Method (Only for temporary pits and closed-loop systems)

☐ In-place Burial ☐ On-site Trench Burial

☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.


Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

20.

OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature:  Approval Date: 9/24/19

Title: Environmental Specialist OCD Permit Number: _____

21.

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ Closure Completion Date: 07/10/2019

22.

Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☒ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☒ Disposal Facility Name and Permit Number
☒ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.62352 Longitude -108.18774 NAD: ☐ 1927 ☒ 1983

25.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Erin Dunman Title: Field Environmental Coordinator

Signature:  Date: September 10, 2019

e-mail address: Erin.Dunman@bpx.com Telephone: 832-609-7048

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

BPX ENERGY
(formerly BP America Production Company)
SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

Gallegos Canyon Unit # 157 – Tank ID: B

API #: 3004507067

Unit Letter B, Section 35, T28N, R13W

This plan will address the standard protocols and procedures for closure of below-grade tanks (BGTs) on BPX Energy (BPX) well sites. As stipulated in Paragraph A of 19.15.17.13 NMAC, BPX shall close a BGT within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the New Mexico Oil Conservation Division (NMOCD) requires because of imminent danger to fresh water, public health, safety or the environment. If deviations from this plan are necessary, any specific changes will be included on form C-144 and approved by the NMOCD. BPX shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years after June 16, 2008, if not retrofit with a BGT that complies with the BPX's NMOCD approved BGT design attached to the BPX Design and Construction Plan. BPX shall close an existing BGT that does not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, if not previously retrofitted to comply with the BPX's NMOCD approved BGT Design attached to the BPX Design and Construction Plan, prior to any sale or change in operator pursuant to 19.15.9.9 NMAC. BPX shall close the permitted BGT within 60 days of cessation of the BGTs operation or as required by the transitional provisions of Subsection B, D, or E of 19.15.17.17 NMAC.

General Closure Plan

1. BPX shall notify the surface owner by certified mail that it plans to close a BGT. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records demonstrates compliance with this requirement.

Notice is attached.

2. BPX shall notify the division District III office verbally or by other means at least 72 hours, but not more than one (1) week, prior to any closure operation. The notice shall include the operator's name, and the location to be closed by unit letter, section, township and range. If the BGT closure is associated with a particular well, then the notice shall also include the well's name, number and API number.

Notice was provided and documented in the attached email.

3. BPX shall remove liquids and sludge from the BGT prior to implementing a closure method and dispose of the liquids and sludge in a NMOCD's division-approved facility. The facilities to be used are:

- a. BPX Crouch Mesa Landfarm, Permit NM-02-003 (Solids)
- b. JFJ Landfarm, Permit NM-01-010(B) (Solids and Sludge)
- c. Basin Disposal, Permit NM-01-0005 (Liquids)
- d. Envirotech Inc Soil Remediation Facility, Permit NM-01-0011 (Solids and Sludge)
- e. BPX Operated E.E. Elliott SWD #1, API 30-045-27799 (Liquids)
- f. BPX Operated 13 GCU SWD #1, API 30-045-28601 (Liquids)
- g. BPX Operated GCU 259 SWD, API 30-045-20006 (Liquids)
- h. BPX Operated GCU 306 SWD, API 30-045-24286 (Liquids)
- i. BPX Operated GCU 307 SWD, API 30-045-24248 (Liquids)
- j. BPX Operated GCU 328 SWD, API 30-045-24735 (Liquids)
- k. BPX Operated Pritchard SWD #1, API 30-045-28351 (Liquids)

All liquids and/or sludge within the BGT were removed and sent to one of the above NMOCD approved facilities for disposal.

4. BPX shall remove the BGT and dispose of it in a NMOCD approved facility or recycle, reuse, or reclaim it in a manner that the NMOCD approves. If a liner is present and must be disposed of it will be cleaned by scraping any soils or other attached materials on the liner to a de minimus amount and disposed at a permitted solid waste facility, pursuant to Subparagraph (m) of Paragraph (1) of Subsection C of 19.15.35.8 NMAC. Documentation as to the final disposition of the removed BGT will be provided in the final closure report.

The BGT was transported for recycling.

5. BPX shall remove any on-site equipment associated with a BGT unless the equipment is required for well production.

All equipment associated with the BGT has been removed.

6. BPX shall test the soils beneath the BGT to determine whether a release has occurred. BPX shall collect at a minimum: a five (5) point composite sample and individual grab samples from any area that is wet, discolored or showing other evidence of a release and analyze for BTEX, TPH and chlorides. The testing methods for those constituents are as follows;

Constituents	Testing Method	Release Verification (mg/Kg)	Sample Results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	<0.0250
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	<0.0250
TPH	US EPA Method SW-846 418.1	100	<50
Chlorides	US EPA Method 300.0 or 4500B	250 or background	94.6

Notes: mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons. Other EPA methods that the division approves may be applied to all constituents listed. Chloride closure standards will be determined by which ever concentration level is greatest.

Soil beneath the BGT was sampled for TPH, BTEX, and chloride. All test parameters were below the stated limits. A field and laboratory reports are attached.

7. BPX shall notify the division District III office of its results on form C-141.

C-141 is attached.

8. If it is determined that a release has occurred, then BPX will comply with 19.15.30 NMAC and 19.15.29 NMAC, as appropriate.

Sampling results reveal no evidence of a release has occurred.

9. If the sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BPX shall backfill the excavation, with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover, re-contour and re-vegetate the location. The location will be reclaimed if it is not within the active process area.

Sampling results reveal no evidence of a release has occurred. Area was backfilled with clean, earthen material and is within the active well pad.

10. BPX shall reclaim the BGT location and all areas associated with the BGT including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. BPX shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, re-contour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

The BGT area has been backfilled with clean, earthen material and is within the active well pad. Reclamation will be completed within the allowable timeframe and will meet the specified requirements of 19.15.17.13 NMAC.

11. The soil cover for closures where the BGT has been removed or remediated to the NMOCD's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. The soil cover will be constructed to the site's existing grade and all practicable efforts will be made to prevent ponding of water and erosion of the cover material.
The BGT area has been backfilled with clean, earthen material and is within the active well pad. Reclamation will be completed within the allowable timeframe and will meet the specified requirements of 19.15.17.13 NMAC.
12. BPX shall seed the disturbed area the first growing season after closure of the BGT. Seeding will be accomplished by drilling on the contour whenever practical or by other division-approved methods. Vegetative cover will be, at a minimum, 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation), consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.
The BGT area has been backfilled with clean, earthen material and is within the active well pad. Reclamation will be completed within the allowable timeframe and will meet the specified requirements of 19.15.17.13 NMAC.
13. BPX shall seed, plant and re-seed pursuant to Paragraph (3) of Subsection I of 19.15.17.13 NMAC, until the location successfully achieves the required vegetative cover.
The BGT area has been backfilled with clean, earthen material and is within the active well pad. Reclamation will be completed within the allowable timeframe and will meet the specified requirements of 19.15.17.13 NMAC.
14. Pursuant to Paragraph (5) of Subsection I of 19.15.17.13 NMAC, BPX shall notify the NMOCD when it has seeded or planted and when it successfully achieves re-vegetation.
BPX will notify NMOCD when re-vegetation is successfully completed.
15. Within 60 days of closure completion, BPX shall submit a closure report on NMOCD's form C-144, and will include the following;
- proof of closure notification (surface owner and NMOCD)
 - sampling analytical reports; information required by 19.15.17 NMAC;
 - disposal facility name and permit number
 - details on back-filling, capping, covering, and where applicable re-vegetation application rates and seeding techniques and
 - site reclamation, photo documentation.
- Closure report on C-144 form is included & contains a photo of the current reclamation requirements completed.**
16. BPX shall certify that all information in the report and attachments is accurate, truthful, and compliant with all applicable closure requirements and conditions specified in the approved closure plan.
Certification section of C-144 has been completed.

BP Pit Closure Notification – Gallegos Canyon Unit 157

From: Patti Campbell (Patti.Campbell@bpx.com)
To: [Smith, Cory, EMNRD](#)
Cc: [Sabre Beebe \(BPX\)](#), [Erin Dunman](#), [Steve Moskal](#), [Adeloye Abiodun](#), l1thomas@blm.gov, [Nelson Velez](#), [Jeffery Blagg](#)
Date: Tuesday, July 2, 2019 04:48 PM MDT

SENT VIA E-MAIL TO: CORY.SMITH@STATE.NM.US

July 2, 2019

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Notice of Proposed Below-Grade Tank (BGT) Closure

Gallegos Canyon Unit 157
API 30-045-07067
(B) Section 35 – T28N – R13W
San Juan County, New Mexico

Dear Mr. Cory Smith,

In regards to the captioned subject and requirements of the NMOCD pit rule, this letter is notification that BP is planning to close a 95bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around July 9, 2019.

Should you have any questions, please feel free to contact BP.

Sincerely,

Patti Campbell
Regulatory Analyst
BP America Production Company
BPX Energy Inc.
(970) 712-5997
patti.campbell@bpx.com



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 BPX Energy (formerly BP America Production Co.)	OGRID 778
Contact Name Erin Dunman	Contact Telephone (832) 609-7048
Contact email Erin.Dunman@bpx.com	Incident # (assigned by OCD)
Contact mailing address 1199 Main Ave., Suite 101, Durango, CO 81301	

Location of Release Source

Latitude **36.62352** Longitude **-108.18774**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name GALLEGOS CANYON UNIT 157	Site Type Natural Gas Well
Date Release Discovered	API# (if applicable) 30-045-07067

Unit Letter	Section	Township	Range	County
B	35	28N	13W	San Juan

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input 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)

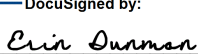
Cause of Release **TPH, BTEX, & chloride all below below-grade tank (BGT) permit closure standards.**

Incident ID	
District RP	
Facility ID	
Application ID	

<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p> <p>Not required.</p>	

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Erin Dunman</u>	Title: <u>Field Environmental Coordinator</u>
Signature: 	Date: <u>September 10, 2019</u>
email: <u>Erin.Dunman@bpx.com</u>	Telephone: <u>(832) 609-7048</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

CLIENT:

BPX

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

API #: 3004507067
TANK ID (if applicable): B

FIELD REPORT:

(circle one):

BGT CONFIRMATION

 / RELEASE INVESTIGATION / OTHER:

PAGE #: 1 of 1

SITE INFORMATION:

SITE NAME: GCU # 157

QUAD/UNIT: B SEC: 35 TWP: 28N RNG: 13W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 975'N / 2,510'E NW/NE LEASE TYPE:

FEDERAL

 / STATE / FEE / INDIAN

LEASE #: SF077967 PROD. FORMATION: DK CONTRACTOR: KELLEY O.F.S. BPX - S. BEEBE

DATE STARTED: 07/09/19

DATE FINISHED:

ENVIRONMENTAL SPECIALIST(S): NJV

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.62337 X 108.18813 GL ELEV.: 6,067'

1) 95 BGT (DW/DB) GPS COORD.: 36.62352 X 108.18774 DISTANCE/BEARING FROM W.H.: 136.5', N51.5E

2) GPS COORD.: DISTANCE/BEARING FROM W.H.:

3) GPS COORD.: DISTANCE/BEARING FROM W.H.:

4) GPS COORD.: DISTANCE/BEARING FROM W.H.:

SAMPLING DATA:

CHAIN OF CUSTODY RECORD(S) # OR LAB USED: HALL

1) SAMPLE ID: 5PC - TB @ 5' (95) SAMPLE DATE: 07/09/19 SAMPLE TIME: 0820 LAB ANALYSIS: 8015B/8021B/300.0 (CI) OVM READING (ppm): NA

2) SAMPLE ID: SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:

3) SAMPLE ID: SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:

4) SAMPLE ID: SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:

5) SAMPLE ID: SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:

SOIL DESCRIPTION:

SOIL TYPE:

SAND

 SILTY SAND SILT / SILTY CLAY / CLAY / GRAVEL / OTHER

SOIL COLOR: DARK YELLOWISH ORANGE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

COHESION (ALL OTHERS):

NON COHESIVE

 SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE

DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

CONSISTENCY (NON COHESIVE SOILS): LOOSE

FIRM

 DENSE / VERY DENSE

HC ODOR DETECTED: YES

NO

 EXPLANATION -

MOISTURE: DRY

SLIGHTLY MOIST

 MOIST / WET / SATURATED / SUPER SATURATED

SAMPLE TYPE: GRAB

COMPOSITE

 # OF PTS. 5

ANY AREAS DISPLAYING WETNESS: YES

NO

 EXPLANATION -

DISCOLORATION/STAINING OBSERVED: YES

NO

 EXPLANATION -

SITE OBSERVATIONS:

LOST INTEGRITY OF EQUIPMENT: YES

NO

 EXPLANATION -

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES

NO

 EXPLANATION:

EQUIPMENT SET OVER RECLAIMED AREA: YES

NO

 EXPLANATION -

OTHER: NMOCD OR BLM REPS. NOT PRESENT TO WITNESS CONFIRMATION SAMPLING. GAS WELL IS PLUGGED & ABANDONED (P&A).

EXCAVATION DIMENSION ESTIMATION: NA ft. X NA ft. X NA ft. EXCAVATION ESTIMATION (Cubic Yards): NA

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: 300' < x <1,000' NMOCD TPH CLOSURE STD: 2,500 ppm

SITE SKETCH

BGT Located : off

on

 site

PLOT PLAN circle: attached

OVM CALIB. READ. = NA ppm RF=1.00

OVM CALIB. GAS = NA ppm

TIME: NA am/pm DATE: NA

MISCELL. NOTES

PO #: 4301073563

AFE #: X7-0076F-E:REST

SIO #: 190040007672

GL #: 745277

Permit date(s): 06/09/10

OCD Appr. date(s): 03/07/17

Tank ID B OVM = Organic Vapor Meter ppm = parts per million

BGT Sidewalls Visible: Y /

N

BGT Sidewalls Visible: Y / N

BGT Sidewalls Visible: Y / N

Magnetic declination: 10° E

TO FORMER PROD. TANK LOCATION

TO P&A MARKER

BERM

PBGTL T.B. ~ 5' B.G.

FENCE

DOWN SLOPE DIRECTION

X - S.P.D.

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.

NOTES: GOOGLE EARTH IMAGERY DATE: 4/6/2019.

ONSITE: 07/09/19

revised: 11/26/13

BEI1005E-6.SKF

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

 Project Name: Gallegos Canyon Unit 157
 Project Number: 03143-0424
 Project Manager: Erin Dunman

Reported:
 07/10/19 14:28

5PC-TB @ 5' (95)
P907019-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.7 %		50-150	1928011	07/09/19	07/09/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1928016	07/09/19	07/09/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1928016	07/09/19	07/09/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		103 %		50-200	1928016	07/09/19	07/09/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1928011	07/09/19	07/09/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		101 %		50-150	1928011	07/09/19	07/09/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	96.4	20.0	mg/kg	1	1928013	07/09/19	07/09/19	EPA 300.0/9056A	
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Project Information

Client: BPX Energy Inc.

Project: Gallegos Canyon Unit 157

Project Manager: Erin Dunman - BPX Engery Inc.

Address: 1199 Main Ave., Suite 101

City, State, Zip Durango, CO 81301

Phone: N. Velez (505) 320-3489; E. Dunman (832) 609-7048

Email: See "additional instructions" below

Chain of Custody

Report Attention

Report due by: 7/10/2019

Attention: ERIN DUNMAN / NELSON VELEZ

Address:

City, State, Zip

Phone: 832.609.7048 / 505.320.3489

Email: SEE "ADDITIONAL INSTRUCTIONS"

Lab Use Only

Lab WO#

P 967019

Job Number

03143-0424

TAT

1D

3D

X

Page 1 of 1

EPA Program

RCRA

CWA

SDWA

Analysis and Method

State

NM CO UT AZ

X

Remarks

5 POINT
COMPOSITE

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							
0820	7/9/19	Soil	1 - 4oz.	5PC-TB @ 5' (95)	1	✓	✓	✓			✓								

Additional Instructions: Send emails to: jeffcblagg@aol.com, blagg_njv@yahoo.com, Erin.Dunman@bpx.com, Sabre.Beebe@bpx.com, & Steven.Moskal@bpx.com. Use PO 4301073564.

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: Nelson Velez

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:
<i>[Signature]</i>	7/9/19	0942	<i>Raul Lopez</i>	7/9/19	9:42	Received on ice: Y / N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1
						T2
						T3
						AVG Temp °C

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.

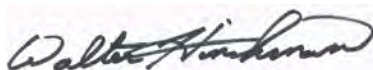
Samples Received: 7/9/2019

Job Number: 03143-0424

Work Order: P907019

Project Name/Location: Gallegos Canyon Unit 157

Report Reviewed By:



Date: 7/10/19

Walter Hinchman, Laboratory Director



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

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

Project Name: Gallegos Canyon Unit 157
Project Number: 03143-0424
Project Manager: Erin Dunman

Reported:
07/10/19 14:28

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
5PC-TB @ 5' (95)	P907019-01A	Soil	07/09/19	07/09/19	Glass Jar, 4 oz.

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

 Project Name: Gallegos Canyon Unit 157
 Project Number: 03143-0424
 Project Manager: Erin Dunman

Reported:
 07/10/19 14:28

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

Batch 1928011 - Purge and Trap EPA 5030A
Blank (1928011-BLK1)

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 7.71 " 8.00 96.3 50-150

LCS (1928011-BS1)

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Benzene	4.30	0.0250	mg/kg	5.00		86.0	70-130			
Toluene	4.66	0.0250	"	5.00		93.2	70-130			
Ethylbenzene	4.63	0.0250	"	5.00		92.7	70-130			
p,m-Xylene	9.53	0.0500	"	10.0		95.3	70-130			
o-Xylene	4.61	0.0250	"	5.00		92.2	70-130			
Total Xylenes	14.1	0.0250	"	15.0		94.3	70-130			

Surrogate: 4-Bromochlorobenzene-PID 7.72 " 8.00 96.5 50-150

Matrix Spike (1928011-MS1)

Source: P907017-01

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Benzene	4.29	0.0250	mg/kg	5.00	ND	85.8	54.3-133			
Toluene	4.66	0.0250	"	5.00	ND	93.2	61.4-130			
Ethylbenzene	4.63	0.0250	"	5.00	ND	92.6	61.4-133			
p,m-Xylene	9.54	0.0500	"	10.0	ND	95.4	63.3-131			
o-Xylene	4.61	0.0250	"	5.00	ND	92.3	63.3-131			
Total Xylenes	14.1	0.0250	"	15.0	ND	94.3	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 7.72 " 8.00 96.5 50-150

Matrix Spike Dup (1928011-MSD1)

Source: P907017-01

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Benzene	4.42	0.0250	mg/kg	5.00	ND	88.4	54.3-133	2.99	20	
Toluene	4.80	0.0250	"	5.00	ND	96.0	61.4-130	2.91	20	
Ethylbenzene	4.77	0.0250	"	5.00	ND	95.4	61.4-133	3.00	20	
p,m-Xylene	9.82	0.0500	"	10.0	ND	98.2	63.3-131	2.99	20	
o-Xylene	4.76	0.0250	"	5.00	ND	95.2	63.3-131	3.09	20	
Total Xylenes	14.6	0.0250	"	15.0	ND	97.2	63.3-131	3.02	20	

Surrogate: 4-Bromochlorobenzene-PID 7.77 " 8.00 97.1 50-150

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

 Project Name: Gallegos Canyon Unit 157
 Project Number: 03143-0424
 Project Manager: Erin Dunman

Reported:
 07/10/19 14:28

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control
Envirotech Analytical Laboratory

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

Batch 1928016 - DRO Extraction EPA 3570
Blank (1928016-BLK1)

Prepared & Analyzed: 07/09/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	48.9		"	50.0		97.8	50-200			

LCS (1928016-BS1)

Prepared & Analyzed: 07/09/19 1

Diesel Range Organics (C10-C28)	482	25.0	mg/kg	500		96.4	38-132			
Surrogate: n-Nonane	52.1		"	50.0		104	50-200			

Matrix Spike (1928016-MS1)

Source: P907006-01

Prepared & Analyzed: 07/09/19 1

Diesel Range Organics (C10-C28)	562	25.0	mg/kg	500	74.4	97.6	38-132			
Surrogate: n-Nonane	53.3		"	50.0		107	50-200			

Matrix Spike Dup (1928016-MSD1)

Source: P907006-01

Prepared & Analyzed: 07/09/19 1

Diesel Range Organics (C10-C28)	591	25.0	mg/kg	500	74.4	103	38-132	4.94	20	
Surrogate: n-Nonane	53.1		"	50.0		106	50-200			

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

 Project Name: Gallegos Canyon Unit 157
 Project Number: 03143-0424
 Project Manager: Erin Dunman

Reported:
 07/10/19 14:28

Nonhalogenated Organics by 8015 - GRO - Quality Control
Envirotech Analytical Laboratory

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

Batch 1928011 - Purge and Trap EPA 5030A
Blank (1928011-BLK1)

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.08		"	8.00		101	50-150			

LCS (1928011-BS2)

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Gasoline Range Organics (C6-C10)	49.8	20.0	mg/kg	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.28		"	8.00		104	50-150			

Matrix Spike (1928011-MS2)

Source: P907017-01

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Gasoline Range Organics (C6-C10)	52.7	20.0	mg/kg	50.0	ND	105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.20		"	8.00		102	50-150			

Matrix Spike Dup (1928011-MSD2)

Source: P907017-01

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Gasoline Range Organics (C6-C10)	54.9	20.0	mg/kg	50.0	ND	110	70-130	4.08	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.16		"	8.00		102	50-150			

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

 Project Name: Gallegos Canyon Unit 157
 Project Number: 03143-0424
 Project Manager: Erin Dunman

Reported:
 07/10/19 14:28

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 1928013 - Anion Extraction EPA 300.0/9056A
Blank (1928013-BLK1)

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Chloride ND 20.0 mg/kg

LCS (1928013-BS1)

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Chloride 254 20.0 mg/kg 250 102 90-110

Matrix Spike (1928013-MS1)
Source: P907017-01

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Chloride 268 20.0 mg/kg 250 ND 107 80-120

Matrix Spike Dup (1928013-MSD1)
Source: P907017-01

Prepared: 07/09/19 0 Analyzed: 07/09/19 1

Chloride 267 20.0 mg/kg 250 ND 107 80-120 0.250 20

QC Summary Report
Comment:

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

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Reported:
07/10/19 14:28

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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GALLEGOS CANYON UNIT 157

