

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: BP AMERICA PRODUCTION COMPANY OGRID #: 778
Address: 200 Energy Court, Farmington, NM 87401
Facility or well name: FIELDS A 007A
API Number: 3004522464 OCD Permit Number: _____
U/L or Qtr/Qtr E Section 34.0 Township 32.0N Range 11W County: San Juan County
Center of Proposed Design: Latitude 36.944458 Longitude -107.982153 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 _____

RCVD MAR 12 '14
OIL CONS. DIV.
DIST. 3

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: A
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 SINGLE WALLED DOUBLE BOTTOMED SIDE WALLS 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.	<p>Fencing: Subsection D of 19.15.17.11 NMAC (<i>Applies to permanent pits, temporary pits, and below-grade tanks</i>)</p> <p><input type="checkbox"/> Chain link, six feet in height, two strands of barbed wire at top (<i>Required if located within 1000 feet of a permanent residence, school, hospital, institution or church</i>)</p> <p><input type="checkbox"/> Four foot height, four strands of barbed wire evenly spaced between one and four feet</p> <p><input checked="" type="checkbox"/> Alternate. Please specify <u>4' Hogwire with single barbed wire</u></p>																																								
7.	<p>Netting: Subsection E of 19.15.17.11 NMAC (<i>Applies to permanent pits and permanent open top tanks</i>)</p> <p><input type="checkbox"/> Screen <input type="checkbox"/> Netting <input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Monthly inspections (If netting or screening is not physically feasible)</p>																																								
8.	<p>Signs: Subsection C of 19.15.17.11 NMAC</p> <p><input type="checkbox"/> 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers</p> <p><input checked="" type="checkbox"/> Signed in compliance with 19.15.16.8 NMAC</p>																																								
9.	<p>Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.</p> <p>Please check a box if one or more of the following is requested, if not leave blank:</p> <p><input checked="" type="checkbox"/> Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.</p> <p><input type="checkbox"/> Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.</p>																																								
10.	<p>Siting Criteria (regarding permitting): 19.15.17.10 NMAC</p> <p><i>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.</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</td> <td style="width: 20%; text-align: right;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</td> <td></td> </tr> <tr> <td>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).</td> <td style="text-align: right;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td>- Topographic map; Visual inspection (certification) of the proposed site</td> <td></td> </tr> <tr> <td>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>)</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</td> <td style="text-align: right;"> <input type="checkbox"/> NA </td> </tr> <tr> <td>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to permanent pits</i>)</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</td> <td style="text-align: right;"> <input checked="" type="checkbox"/> NA </td> </tr> <tr> <td>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.</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</td> <td></td> </tr> <tr> <td>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.</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- Written confirmation or verification from the municipality; Written approval obtained from the municipality</td> <td></td> </tr> <tr> <td>Within 500 feet of a wetland.</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</td> <td></td> </tr> <tr> <td>Within the area overlying a subsurface mine.</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</td> <td></td> </tr> <tr> <td>Within an unstable area.</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map</td> <td></td> </tr> <tr> <td>Within a 100-year floodplain.</td> <td style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </td> </tr> <tr> <td>- FEMA map</td> <td></td> </tr> </table>	Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells		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).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	- Topographic map; Visual inspection (certification) of the proposed site		Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> NA	Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to permanent pits</i>)	<input type="checkbox"/> Yes <input type="checkbox"/> No	- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input checked="" 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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site		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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- Written confirmation or verification from the municipality; Written approval obtained from the municipality		Within 500 feet of a wetland.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site		Within the area overlying a subsurface mine.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division		Within an unstable area.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map		Within a 100-year floodplain.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	- FEMA map	
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Within a 100-year floodplain.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																								
- FEMA map																																									

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 identify 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<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. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<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

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): Jeffrey PeaceTitle: Field Environmental AdvisorSignature: Jeffrey H. PeaceDate: 6/14/2010e-mail address: Peace.Jeffrey@bp.comTelephone: 505-326-9479

20.

OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)OCD Representative Signature: Joseph P. KellyApproval Date: 5/16/12Title: Environmental EngineerOCD Permit Number: Compliance Officer

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: 9/6/2012 ~~JK 4/10/2014~~

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 identify 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 36.944458Longitude -107.982153NAD: ☐ 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): Jeff PeaceTitle: Field Environmental AdvisorSignature: Jeff PeaceDate: February 27, 2014e-mail address: peace.jeffrey@bp.comTelephone: (505) 326-9479

BP AMERICA PRODUCTION COMPANY
SAN JUAN BASIN, NORTHWEST NEW MEXICO

BELOW-GRADE TANK CLOSURE PLAN

Fields A 7A

API No. 3004522464

Unit Letter E, Section 34, T32N, R11W

This plan will address the standard protocols and procedures for closure of below-grade tanks (BGTs) on BP America Production Company (BP) well sites. As stipulated in Paragraph A of 19.15.17.13 NMAC, BP 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. BP 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 BP NMOCD approved BGT design attached to the BP Design and Construction Plan. BP 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 BP NMOCD approved BGT Design attached to the BP Design and Construction Plan, prior to any sale or change in operator pursuant to 19.15.9.9 NMAC. BP 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. BP 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.
No notice was made due to misunderstanding of the notice requirements. Closure notices will be made for all BGT closures from this point forward.
2. BP 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.
No notice was made due to misunderstanding of the notice requirements. Closure notices will be made for all BGT closures from this point forward.
3. BP 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. BP 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. BP Operated E.E. Elliott SWD #1, API 30-045-27799 (Liquids)
- f. BP Operated 13 GCU SWD #1, API 30-045-28601 (Liquids)
- g. BP Operated GCU 259 SWD, API 30-045-20006 (Liquids)
- h. BP Operated GCU 306 SWD, API 30-045-24286 (Liquids)
- i. BP Operated GCU 307 SWD, API 30-045-24248 (Liquids)
- j. BP Operated GCU 328 SWD, API 30-045-24735 (Liquids)
- k. BP Operated Pritchard SWD #1, API 30-045-28351 (Liquids)

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

4. BP 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 to a storage area for sale and re-use.

5. BP 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. BP shall test the soils beneath the BGT to determine whether a release has occurred. BP 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 95 bbl BGT grab sample	Release Verification (mg/Kg)	Sample results
Benzene	US EPA Method SW-846 8021B or 8260B	0.2	ND
Total BTEX	US EPA Method SW-846 8021B or 8260B	50	0.39
TPH	US EPA Method SW-846 418.1	100	ND
Chlorides	US EPA Method 300.0 or 4500B	250 or background	ND

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 immediately under the BGT showed no evidence of historical impacts. The sample results shown in the above table were from soil immediately below the BGT,

but a sample taken while excavating discolored soil exceeded the TPH limit. Sampling data is attached.

7. BP 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 BP will comply with 19.15.30 NMAC and 19.15.29 NMAC, as appropriate.
Soil beneath the BGT indicated a historical release had occurred. These impacts were addressed under the spill and release guidelines. A C-141 for the remediation of those impacts will be submitted separately.
9. If the sampling demonstrates that a release has not occurred or that any release does not exceed the concentrations specified above, then BP 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
The area under the BGT was backfilled with clean soil and is covered by the LPT.
10. BP 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. BP 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 area over the BGT is covered by the LPT. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.
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 area over the BGT is covered by the LPT. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.
12. BP 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 area over the BGT is covered by the LPT. This area will be reclaimed when the well is plugged and abandoned as part of final reclamation.

13. BP 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.

BP will seed the area when the well is plugged and abandoned.

14. Pursuant to Paragraph (5) of Subsection I of 19.15.17.13 NMAC, BP shall notify the NMOCD when it has seeded or planted and when it successfully achieves re-vegetation.

BP will notify NMOCD when re-vegetation is successful.

15. Within 60 days of closure completion, BP shall submit a closure report on NMOCD's form C-144, and will include the following;

- a. proof of closure notification (surface owner and NMOCD)
- b. sampling analytical reports; information required by 19.15.17 NMAC;
- c. disposal facility name and permit number
- d. details on back-filling, capping, covering, and where applicable re-vegetation application rates and seeding techniques and
- e. site reclamation, photo documentation.

Closure report on C-144 form is included.

16. BP 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.

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

Form C-141
Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: BP	Contact: Jeff Peace	
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479	
Facility Name: Fields A 7A	Facility Type: Natural gas well	
Surface Owner: Federal	Mineral Owner: Federal	API No. 3004522464

LOCATION OF RELEASE

Unit Letter E	Section 34	Township 32N	Range 11W	Feet from the 1,620	North/South Line North	Feet from the 1,100	East/West Line West	County: San Juan
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Latitude 36.944458 Longitude 107.982513

NATURE OF RELEASE


Type of Release: condensate or oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: below grade tank – 95 bbl	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 9/6/2012; 2:15 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Sampling of the soil beneath the BGT was done during removal to ensure no soil impacts from the BGT. Soil showed evidence of historical impact and soil analysis resulted in TPH above the applicable standards. Analysis results are attached.

Describe Area Affected and Cleanup Action Taken.* BGT was removed and the area underneath the BGT was sampled. Impacted soil was excavated to sandstone bedrock. The area was backfilled and compacted and is covered by the LPT. C-141 for remedial excavation will be submitted separately.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Jeff Peace	Approved by Environmental Specialist:		
Title: Field Environmental Advisor	Approval Date:	Expiration Date:	
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: March 6, 2014	Phone: 505-326-9479		

* Attach Additional Sheets If Necessary

CLIENT: BP	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	API #: 3004522464 TANK ID (if applicable): A
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FIELD REPORT:

(circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER:

PAGE #: **1** of **2**

SITE INFORMATION:	SITE NAME: FIELDS A # 7A QUAD/UNIT: E SEC: 34 TWP: 32N RNG: 11W PM: NM CNTY: SJ ST: NM 1/4 - 1/4 FOOTAGE: 1620'N / 1100'W SW/NW LEASE TYPE: FEDERAL / STATE / FEE / INDIAN LEASE #: NM010989 PROD. FORMATION: MV/PC CONTRACTOR: ELKHORN MBF - B. SCHURMAN	DATE STARTED: 09/06/12 DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST(S): NV
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REFERENCE POINT:	WELL HEAD (W.H.) GPS COORD.: 36.94418 X 107.98206 GL ELEV.: 6077'	
1) 95 BBL BGT (SW/DB)	GPS COORD.: 36.944458 X 107.982153	DISTANCE/BEARING FROM W.H.: 120', N17.5W
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	OVM READING (ppm)
1) SAMPLE ID: 1 @ 5' (95)	SAMPLE DATE: 09/06/12 SAMPLE TIME: 1415 LAB ANALYSIS: 418.1, 8015, 8021, 300.0 (Chlor.)	47.7
2) SAMPLE ID: 1 @ 15' (95)	SAMPLE DATE: 09/06/12 SAMPLE TIME: 1430 LAB ANALYSIS: 8015, 8021, 300.0 (Chlor.)	650
3) SAMPLE ID: TH1 @ 1.5'	SAMPLE DATE: 09/06/12 SAMPLE TIME: 1510 LAB ANALYSIS: 8015, 8021, 300.0 (Chlor.)	9.0
4) SAMPLE ID: _____	SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____	

SOIL DESCRIPTION:	SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER BEDROCK - SANDSTONE @ 13' - 15' BELOW GRADE (LIGHT GRAY) SOIL COLOR: VERY PALE ORANGE TO BLACK COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. NA DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - THROUGHOUT TEST HOLE TH & BETWEEN 1' - 2' WITHIN TH1 (VARYING GRAY TO BLACK).
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ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION - _____

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO EXPLANATION: **APPEARS HISTORICAL BASED ON DISCOLORED SOILS.**

ADDITIONAL COMMENTS: **BEDROCK FRAGMENTS OBSERVED BETWEEN 13' - 15' BELOW GRADE WITHIN TEST HOLE BENEATH BGT POSITION (TH). WOODEN BOARDS EXPOSED DURING TH ADVANCEMENT. SEWAGE TYPE ODOR PHYSICALLY DETECTED FROM SAMPLE COLLECTED FROM TH1 - 1.5' BELOW GRADE.**

SOIL IMPACT DIMENSION ESTIMATION: _____ ft. X _____ ft. X _____ ft. EXCAVATION ESTIMATION (Cubic Yards): _____

DEPTH TO GROUNDWATER: **<25'-30'** NEAREST WATER SOURCE: **>1,000'** NEAREST SURFACE WATER: **<200'** NMOCED TPH CLOSURE STD: **100** ppm

SITE SKETCH

PLOT PLAN circle: **attached**

OVM CALIB. READ. = **52.2** ppm
 OVM CALIB. GAS = **100** ppm
 TIME: **11:15** am/pm DATE: **9/6/12**

MISCELL. NOTES

WO: **N1595380**

PO #: **83294**

PK: **755222**

PJ #: **Z2-006960-C**

Permit date(s): **06/14/10**

OCD Appr. date(s): **05/16/12**

Tank ID	OVM = Organic Vapor Meter ppm = parts per million
A	BGT Sidewalls Visible: Y / (N)
	BGT Sidewalls Visible: Y / N
	BGT Sidewalls Visible: Y / N

Magnetic declination: **10° E**

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.

TRAVEL NOTES:	CALLOUT: _____	ONSITE: 09/05/12, 09/06/12
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Analytical Report

Lab Order 1209274

Date Reported: 9/14/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 1 @ 5' (95)

Project: FIELDS A #7A

Collection Date: 9/6/2012 2:15:00 PM

Lab ID: 1209274-001

Matrix: SOIL

Received Date: 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/10/2012 10:33:50 AM
Surr: DNOP	114	77.6-140		%REC	1	9/10/2012 10:33:50 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	12	5.0		mg/Kg	1	9/10/2012 12:35:53 PM
Surr: BFB	141	84-116	S	%REC	1	9/10/2012 12:35:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/10/2012 12:35:53 PM
Toluene	ND	0.050		mg/Kg	1	9/10/2012 12:35:53 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/10/2012 12:35:53 PM
Xylenes, Total	0.39	0.10		mg/Kg	1	9/10/2012 12:35:53 PM
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	9/10/2012 12:35:53 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/10/2012 12:19:21 PM
EPA METHOD 418.1: TPH						Analyst: JMP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	9/10/2012 9:00:00 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1209274

Date Reported: 9/14/2012

CLIENT: Blagg Engineering**Client Sample ID:** 1 @ 15' (95)**Project:** FIELDS A #7A**Collection Date:** 9/6/2012 2:30:00 PM**Lab ID:** 1209274-002**Matrix:** SOIL**Received Date:** 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	31	9.8		mg/Kg	1	9/10/2012 10:55:37 AM
Surr: DNOP	117	77.6-140		%REC	1	9/10/2012 10:55:37 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	170	10		mg/Kg	2	9/10/2012 1:04:39 PM
Surr: BFB	614	84-116	S	%REC	2	9/10/2012 1:04:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		mg/Kg	2	9/10/2012 1:04:39 PM
Toluene	ND	0.10		mg/Kg	2	9/10/2012 1:04:39 PM
Ethylbenzene	ND	0.10		mg/Kg	2	9/10/2012 1:04:39 PM
Xylenes, Total	1.2	0.20		mg/Kg	2	9/10/2012 1:04:39 PM
Surr: 4-Bromofluorobenzene	130	80-120	S	%REC	2	9/10/2012 1:04:39 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/10/2012 12:31:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1209274

Date Reported: 9/14/2012

CLIENT: Blagg Engineering

Client Sample ID: TH1 @ 1.5'

Project: FIELDS A #7A

Collection Date: 9/6/2012 3:10:00 PM

Lab ID: 1209274-003

Matrix: SOIL

Received Date: 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/10/2012 11:17:23 AM
Surr: DNOP	118	77.6-140		%REC	1	9/10/2012 11:17:23 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	5.4	5.0		mg/Kg	1	9/10/2012 11:13:09 PM
Surr: BFB	111	84-116		%REC	1	9/10/2012 11:13:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/10/2012 1:33:23 PM
Toluene	ND	0.050		mg/Kg	1	9/10/2012 1:33:23 PM
Ethylbenzene	0.059	0.050		mg/Kg	1	9/10/2012 1:33:23 PM
Xylenes, Total	0.57	0.10		mg/Kg	1	9/10/2012 1:33:23 PM
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	9/10/2012 1:33:23 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/10/2012 12:44:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209274

14-Sep-12

Client: Blagg Engineering

Project: FIELDS A #7A

Sample ID	MB-3668	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	3668	RunNo:	5415					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	154533	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-3668	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	3668	RunNo:	5415					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	154534	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.2	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209274

14-Sep-12

Client: Blagg Engineering

Project: FIELDS A #7A

Sample ID	MB-3671	SampType:	MBLK	TestCode:	EPA Method 418.1: TPH					
Client ID:	PBS	Batch ID:	3671	RunNo:	5398					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	153937	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-3671	SampType:	LCS	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS	Batch ID:	3671	RunNo:	5398					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	153938	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	108	80	120			

Sample ID	LCSD-3671	SampType:	LCSD	TestCode:	EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID:	3671	RunNo:	5398					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	153939	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	102	80	120	5.60	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209274

14-Sep-12

Client: Blagg Engineering

Project: FIELDS A #7A

Sample ID	MB-3669	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	3669	RunNo:	5402					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	154019	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		111	77.6	140			

Sample ID	LCS-3669	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	3669	RunNo:	5402					
Prep Date:	9/10/2012	Analysis Date:	9/10/2012	SeqNo:	154022	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.9	52.6	130			
Surr: DNOP	4.4		5.000		88.3	77.6	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209274

14-Sep-12

Client: Blagg Engineering

Project: FIELDS A #7A

Sample ID	MB-3703	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	3703	RunNo:	5423					
Prep Date:	9/11/2012	Analysis Date:	9/11/2012	SeqNo:	154966	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID	LCS-3703	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LC SW	Batch ID:	3703	RunNo:	5423					
Prep Date:	9/11/2012	Analysis Date:	9/11/2012	SeqNo:	155418	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.49		0.5000		97.1	79.5	166			

Sample ID	LCSD-3703	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	3703	RunNo:	5423					
Prep Date:	9/11/2012	Analysis Date:	9/11/2012	SeqNo:	155419	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.42		0.5000		84.4	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209274

14-Sep-12

Client: Blagg Engineering

Project: FIELDS A #7A

Sample ID	MB-3657	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	3657	RunNo:	5409					
Prep Date:	9/7/2012	Analysis Date:	9/10/2012	SeqNo:	154770	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	84	116			

Sample ID	LCS-3657	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	3657	RunNo:	5409					
Prep Date:	9/7/2012	Analysis Date:	9/10/2012	SeqNo:	154771	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74	117			
Surr: BFB	1100		1000		106	84	116			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209274

14-Sep-12

Client: Blagg Engineering

Project: FIELDS A #7A

Sample ID	MB-3657	SampType	MBLK	TestCode	EPA Method 8021B: Volatiles					
Client ID	PBS	Batch ID	3657	RunNo	5409					
Prep Date	9/7/2012	Analysis Date	9/10/2012	SeqNo	154791	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	LCS-3657	SampType	LCS	TestCode	EPA Method 8021B: Volatiles					
Client ID	LCSS	Batch ID	3657	RunNo	5409					
Prep Date	9/7/2012	Analysis Date	9/10/2012	SeqNo	154792	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.4	76.3	117			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.1	0.10	3.000	0	102	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1209274**

Received by/date: **AF 09/08/12**

Logged By: **Anne Thorne** 9/8/2012 11:15:00 AM

Anne Thorne

Completed By: **Anne Thorne** 9/10/2012

Anne Thorne

Reviewed By: **mg** **09/10/12**

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any subcontracted data will be clearly noted on the analytical report.

505-947-9900

BP AMERICA PRODUCTION COMPANY

FIELDS A 007A

API 3004522464 LEASE NMNM010989

1620 FNL1100 FWL (E) SEC 34 T32N R11W

SAN JUAN COUNTY ELEV 6077

LAT 36° 56' 39.804"

LONG 107° 58' 55.632"

