

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  
June 24, 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

**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.

Operator: <b>BP AMERICA PRODUCTION COMPANY</b> OGRID #: <b>778</b>	
Address: <b>200 ENERGY COURT, FARMINGTON, NM 87410</b> <b>RCVD JUL 16 '08</b>	
Facility or well name: <b>Florance 52</b> <b>OIL CONS. DIV.</b>	
API Number: <b>3004511654</b> OCD Permit Number: <b>DIST. 3</b>	
U/L or Qtr/Qtr <b>I</b> Section <b>20</b> Township <b>32N</b> Range <b>09W</b> County: <b>San Juan</b>	
Center of Proposed Design: Latitude <b>36.79417</b> Longitude <b>-107.79762</b> NAD: <input type="checkbox"/> 1927 <input checked="" type="checkbox"/> 1983	
Surface Owner: <input checked="" type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment	
<input checked="" type="checkbox"/> <b>Pit:</b> Subsection F or G of 19.15.17.11 NMAC Temporary: <input type="checkbox"/> Drilling <input checked="" type="checkbox"/> Workover <input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> Steel Pit <input checked="" type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness <b>20</b> mil <input checked="" type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____ <input type="checkbox"/> String-Reinforced Seams: <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume: <b>900</b> bbl Dimensions: L <b>35</b> x W <b>35</b> x D <b>8</b>	<input type="checkbox"/> <b>Closed-loop System:</b> Subsection H of 19.15.17.11 NMAC <input type="checkbox"/> Drying Pad <input type="checkbox"/> Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other _____ <input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____ Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume: _____ bbl _____ yd <sup>3</sup> Dimensions: Length _____ x Width _____
<input type="checkbox"/> <b>Below-grade tank:</b> Subsection I of 19.15.17.11 NMAC Volume: _____ bbl Type of fluid: _____ Tank Construction material: _____ <input type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off <input type="checkbox"/> Visible sidewalls and liner <input type="checkbox"/> Visible sidewalls only <input type="checkbox"/> Other _____ Liner type: Thickness _____ mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	<input type="checkbox"/> <b>Fencing:</b> Subsection D of 19.15.17.11 NMAC <input type="checkbox"/> Chain link, six feet in height, two strands of barbed wire at top <input type="checkbox"/> Four foot height, four strands of barbed wire evenly spaced between one and four feet <input type="checkbox"/> <b>Netting:</b> Subsection E of 19.15.17.11 NMAC <input type="checkbox"/> Screen <input type="checkbox"/> Netting <input type="checkbox"/> Other _____ <input type="checkbox"/> Monthly inspections <input type="checkbox"/> <b>Signs:</b> Subsection C of 19.15.17.11 NMAC <input type="checkbox"/> 12'x24', 2' lettering, providing Operator's name, site location, and emergency telephone numbers <input checked="" type="checkbox"/> Signed in compliance with 19.15.3.103 NMAC
<input type="checkbox"/> <b>Alternative Method:</b> Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	<input type="checkbox"/> <b>Administrative Approvals and Exceptions:</b> Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. <b>Please check a box if one or more of the following is requested, if not leave blank:</b> <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. ( <b>Fencing in Design Plan</b> ) <input type="checkbox"/> Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

**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.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input checked="" 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).<br>- Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>(Applies to permanent pits)<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><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.<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" 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.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                |
| Within the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                |
| Within an unstable area.<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                |
| Within a 100-year floodplain.<br>- FEMA map  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                |

**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 - 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: \_\_\_\_\_

**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 (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations (required 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

NMAC

- ☐ Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_

**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 H<sub>2</sub>S, 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

**Proposed Closure:** 19.15.17.13 NMAC

Type: ☐ Drilling ☒ Workover ☐ Emergency ☐ Cavitation ☐ 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)

**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

**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

**Waste Removal Closure For Closed-loop Systems That Utilize 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.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

**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 and Design of Burial Trench (if applicable) 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

**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): LARRY SCHLOTTERBACK Title: ENVIRONMENTAL COORDINATOR

Signature:  Date: JULY 15, 2008

e-mail address: \_\_\_\_\_ Telephone: (505) 326-9200

**OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature:  Approval Date: 7-18-08

Title: Enviro/spec OCD Permit Number: \_\_\_\_\_

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

☐ Closure Completion Date: \_\_\_\_\_

**Closure Method:**

- ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method
- ☐ If different from approved plan, please explain.

**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
- ☐ Proof of Deed Notice (if applicable)
- ☐ Plot Plan
- ☐ Confirmation Sampling Analytical Results
- ☐ Waste Material Sampling Analytical Results
- ☐ 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 \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: ☐ 1927 ☐ 1983

**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: \_\_\_\_\_

# BP AMERICA PRODUCTION COMPANY

## San Juan Basin in Northwest New Mexico

### Temporary Pit General Design and Construction Plan

Pursuant to Rule 19.15.17.11 NMAC, BP America Production (BP) shall construct a temporary pit with the following guidelines. Any deviations from this plan will be addressed with the submittal of Form C-144 at the time of the pit permit application.

- A). The pit will be constructed to contain liquids and prevent contamination of fresh water and protect public health and the environment.
- B). Prior to constructing a pit, top soil will be stripped for use as a final cover or fill at the time of closure.
- C). An upright sign, not less than 12" x 24" with lettering not less than 2" height will be placed on the fence surrounding the pit. Alternatively, a well sign in compliance with 19.15.3.103 NMAC will be posted at the well site. The sign will give BP's name, location by quarter-quarter or unit letter, section, township and range, and emergency phone numbers.
- D). As requested for Administrative approval, a fence will be constructed to 4 feet in height with hogwire design in a manner that prevents unauthorized access and kept in good repair. During well rig operations the fencing adjacent to the rig may be opened.
- E). The pit will be designed to ensure the confinement of liquids and prevent unauthorized releases. The base will be firm and unyielding, smooth and free of rocks, debris, sharp edges or irregularities. The pit will be constructed with a minimum 2:1 horizontal to vertical slope on all sidewalls. Adequate soil will be used to hold the anchor trench, prevent water run-on and prevent sidewall failure. Pit lining will be installed in a manner that avoids excessive stress-strain.
- F). The pit will be lined with a 20-mil string reinforced LLDPE or equivalent liner, composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. The liner shall be resistant to ultraviolet light and comply with EPA-846 Method 9090A.
- G). Liner orientation shall be placed to minimize seams and up and down, not across, slope. Factory welded seams will be used where possible. Prior to field seaming, liners will be overlapped by four to six inches and oriented parallel to the line of maximum slope. Only qualified personnel will perform field seaming.
- H). Construction will avoid excessive stress-strain on the liner.
- I). If protuberances or localized stress-strain may be present, a geo-textile will be placed below the liner to protect it's integrity.
- J). An anchor trench of at least 18" depth, filled with compacted dirt, will be used to hold the liner edges.
- K). Operations will be conducted to protect the liner from any fluid force into and suction out of the pit that could result in mechanical damage. Some mechanical device (header, manifold, diverter, perforated pipe, etc.) will be utilized to assure no damage will occur to the liner material.
- L). The pit will be designed with a small surface berm to prevent surface water run-on. During well rig operations a certain area of the pit may allow run-on of fluid from circulation or flow of the well.
- M). The pit volume shall not exceed 10 acre-feet, including freeboard.
- N). Certain parts of the pit may remain unlined, pursuant to Rule 19.15.17.11 F 11 NMAC, to allow well venting, flaring or blowing.
- O). Freestanding liquids will not be allowed to remain on any unlined portion of the temporary pit.

# BP AMERICA PRODUCTION COMPANY

## San Juan Basin in Northwest New Mexico

### Temporary Pit General Operating and Maintenance Plan

Pursuant to Rule 19.15.17.12 NMAC, BP America Production shall maintain and operate a temporary pit with the following guidelines. Any deviations from this plan will be addressed with the submittal of Form C-144 at the time of the pit permit application.

- A). The pit will be operated and maintained to contain liquids and prevent contamination of fresh water, protect public health and the environment.
- B). Well workover fluids will be re-used, recycled or disposed in a manner to protect fresh water, public health and the environment. Disposal is addressed in the "Closure Plan" for the site.
- C). No hazardous waste will be discharged or stored in the temporary pit. Only fluids generated during the well work process will be placed in the pit. The pit will remain free of solid waste or debris.
- D). If the pit develops a leak or if the liner is penetrated, including the freeboard portion of the pit, all liquids above the failure will be removed within 48 hours. The NMOCD Aztec District office will be notified within 48 hours and the liner will be either repaired or replaced. If the pit develops a leak or is penetrated anywhere above the freeboard portion of the pit, the NMOCD Aztec District office will be notified within 48 hours and the liner will be repaired.
- E). The pit liner will be protected from damage during fluid placement into or removal from by use of mud pit slides, headers or a manifold system.
- F). The pit will be operated with a small surface berm to prevent surface water run-on. During well rig operations a certain area of the pit may allow run-on of fluid from circulation or flow of the well.
- G). An oil absorbent boom will be maintained on site for removal of any oil from the pit surface.
- H). A minimum of 2 feet of freeboard will be maintained in the pit.
- I). The pit will be inspected at least daily while the rig is on site. Thereafter, the pit will be inspected at least weekly as long as fluids remain in the pit. An inspection log will be maintained, and will be submitted to the NMOCD Aztec District office when the pit is closed.
- J). All free liquids will be removed from the pit within 30 days from the date that the rig is released. The date of the rig release will be noted on Form C-103 or Form C-105.
- K). Free liquids will be removed from a pit used for cavitation within 48 hours after completing cavitation. BP may request additional time to remove liquids if it is not feasible to access the location for 48 hours.

# ***BLAGG ENGINEERING, INC.***

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

July 14, 2008

BP America Production Company

Florance 52

API 30-045-11654

(I) Section 20 – T30N – R9W

San Juan County, New Mexico

Surface Water and Groundwater Hydrogeologic Data, Soils, Geology, Topography and Ground Stability  
(Pursuant to NMAC 19.15.17.9, Subsection B, Paragraph 2)

1) Soils: Surface soils at the proposed pit site are comprised of a silty sand. This sand was mechanically moved during well pad construction, with soils stripped from the north side of the location and moved to the south side to create a flat surface. The thickness of this sand is approximately 0-2 feet on the north side of the well pad, and 8'± on the south side. It overlies a dense sandstone surface that outcrops throughout the region (see Geology, below). Surrounding the site is a bedrock sandstone outcrop, covered with a thin layer (barren to 4± feet) of coarse grained sand.

2) Topography: The proposed pit site is located on a flat portion on the south west side of the well pad. Surface drainage from this area of the well pad is towards the southwest, in a direction of the Pemada Canyon dry wash that drains east towards Pump Canyon. Regionally the site is located on a mesa bench on the north side of the Pemada Wash, about 160 feet above the wash bottom. There is a gradual slope towards the southwest from the pit site, leading down to the Pemada, with the wash center in excess of 1,500 horizontal feet from the pit site. The topography towards the west and north includes mesas at a higher elevation than the well site.

3) Geology: Review of geologic maps published by the New Mexico Bureau of Geology and Mineral Resources, 2003, indicates the outcrop sandstone at the site is the Nacimiento Formation of Paleocene age. This formation is a dense interbedded sequence of conglomeritic sandstones, mudstones and shales, formed in a fluvial and lacustrine type environment, with a thickness that varies between 350 – 1,100 feet. The elevation of the well pad and pit site is at approximately 6,100 feet and the Pemada Wash, located about 1,500 feet south, is at an elevation of approximately 5,940 feet. A site inspection indicated that the sequence from the well pad surface to the wash surface, comprised of about 160 feet thickness, had a primary rock type of sandstone.

4) Surface Hydrology: Drainage from the proposed pit site is towards the southwest, based on surface topography. Visual inspection of the site did not present evidence that historical precipitation had made erosional channels that would harm the integrity of the pit site should a storm event occur while the pit is in use.

5) Groundwater Hydrology: As described above, the pit site is at an elevation of 6,100 feet and is approximately 160 feet above the Pemada Canyon dry wash bottom. Review of topographic sheets indicating estimated depths to groundwater, prepared by the New Mexico Oil Conservation Division outlining vulnerable and expanded vulnerable areas of the San Juan Basin, indicates that groundwater at the site is at an elevation of about 5,880 feet. Based on this source, the base of the proposed temporary pit is in excess of 200 feet from

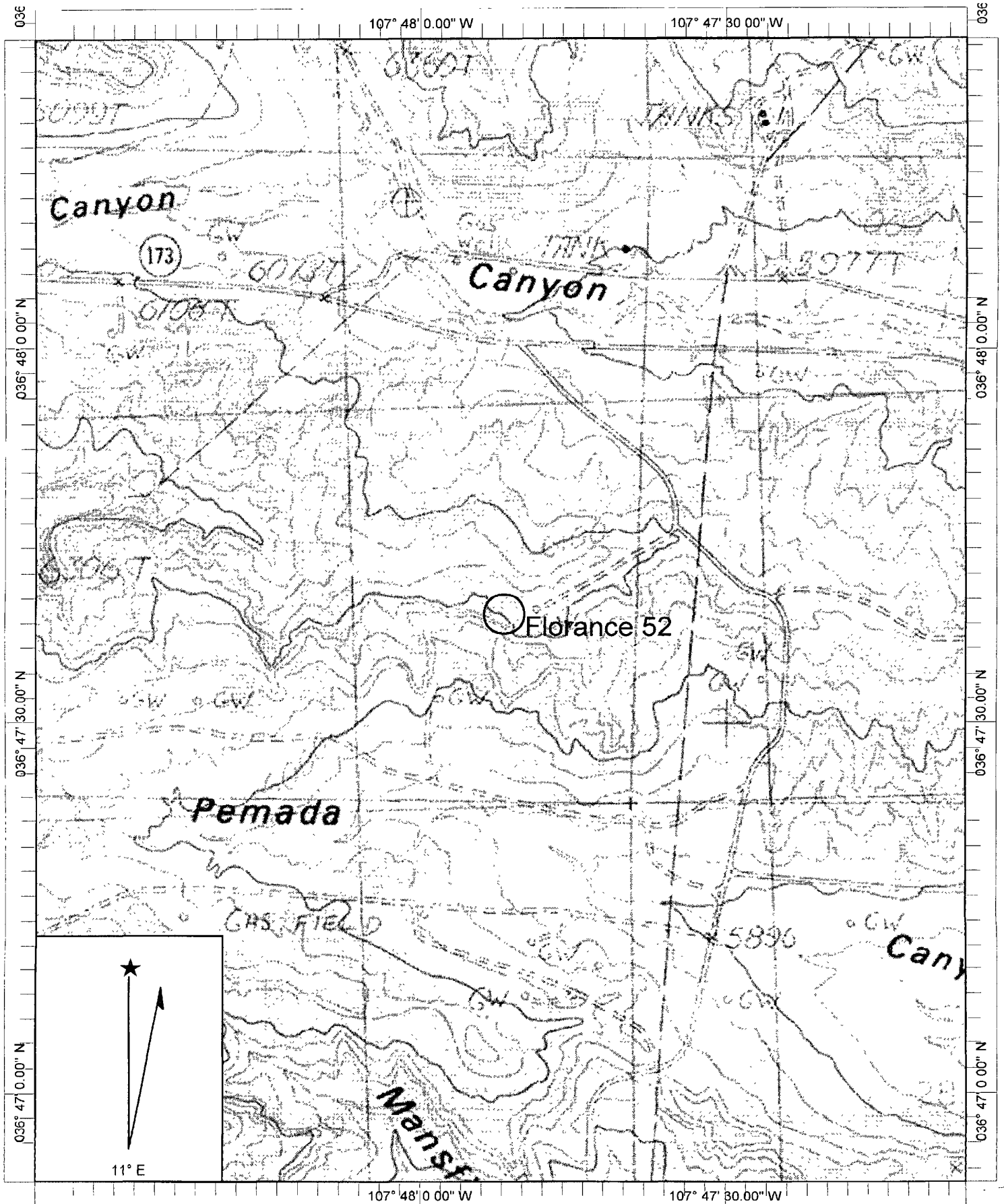
groundwater. This groundwater would be expected to flow down wash, or in an easterly direction, based on surface topography. A site inspection of the sandstone outcrops between the well site and the Pemada wash did not show the presence of seeps or vegetation to indicate the presence of perched groundwater. Characteristics of the aquifer, including parameters such as transmissivity, porosity or permeability, are not pertinent to this data inquiry.

6) Ground Stability: The well pad and temporary pit site is located on soils atop a sandstone outcrop of the Nacimiento Formation. Visual inspection of the site did not show any faulting, fracturing, sink holes or erosional features that would indicate an unstable area. The site appears to be stable.

7) Wetlands, FEMA Flood Zones, Mines: U. S. Fish and Wildlife Wetlands Maps, FEMA FIRM Flood Zone Maps and New Mexico Office of Mines, Mines and Quarry maps were reviewed to identify any such zones in the area of the proposed temporary pit. No such wetlands, flood zones or mines/quarry's were identified within the NMOCD stipulated distances from the site. Maps of the data search are attached.

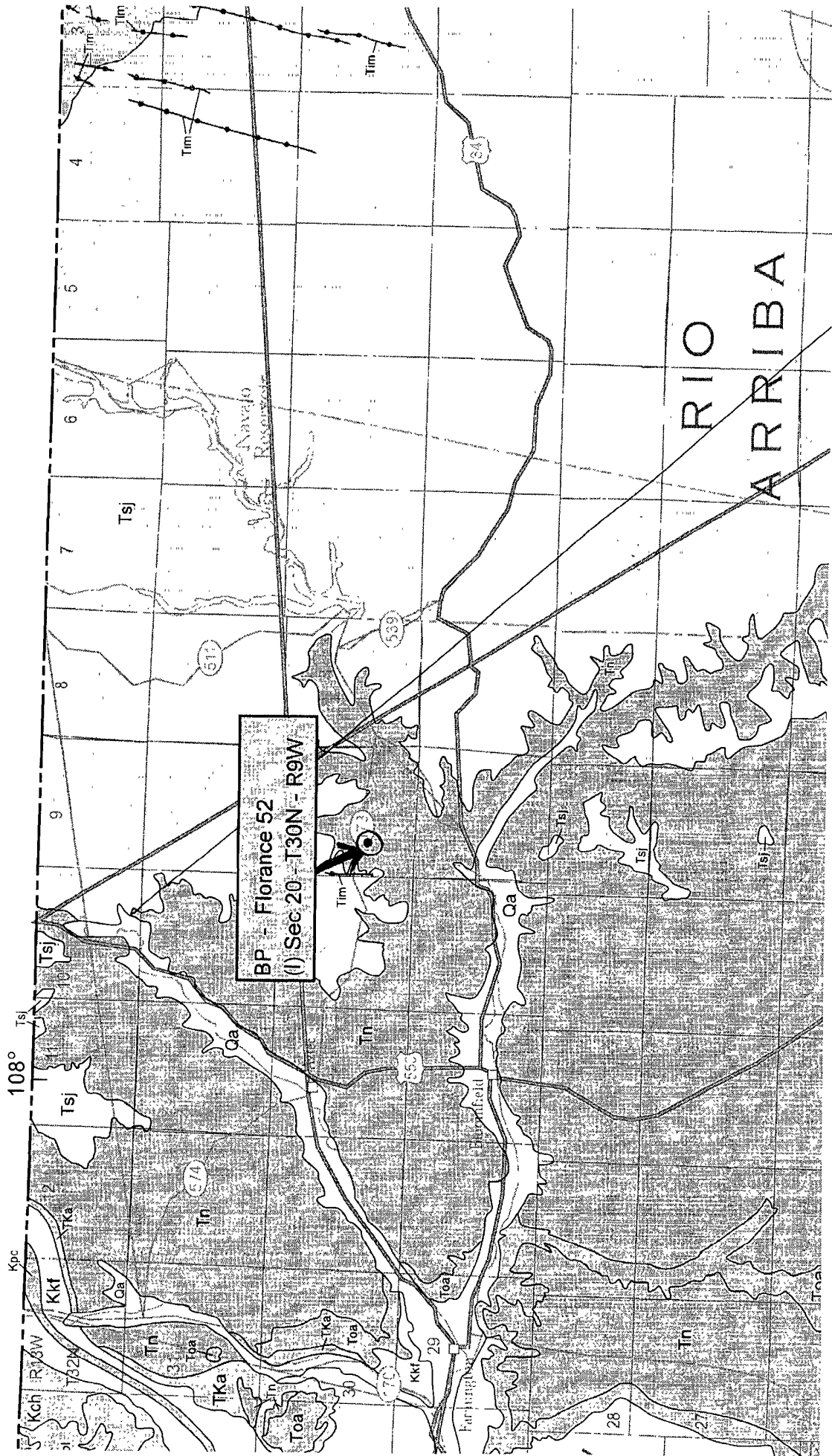
8) Private residences, wells, springs, schools, hospitals, institutions, churches: The site was inspected for evidences of buildings, wells, etc. and no such structures were evident within ½ mile of the site. The NM Office of State Engineer records were reviewed for well data. No such data was found within 1 mile of the site. This records search data is attached.





Name: TURLEY  
Date: 7/14/2008  
Scale: 1 inch equals 1000 feet

Location: 036° 47' 38.7" N 107° 47' 52.1" W  
Caption: BP Florence 52  
(I) Sec 20 - T30N - R9W  
Temporary Pit



# BP: Florance 52

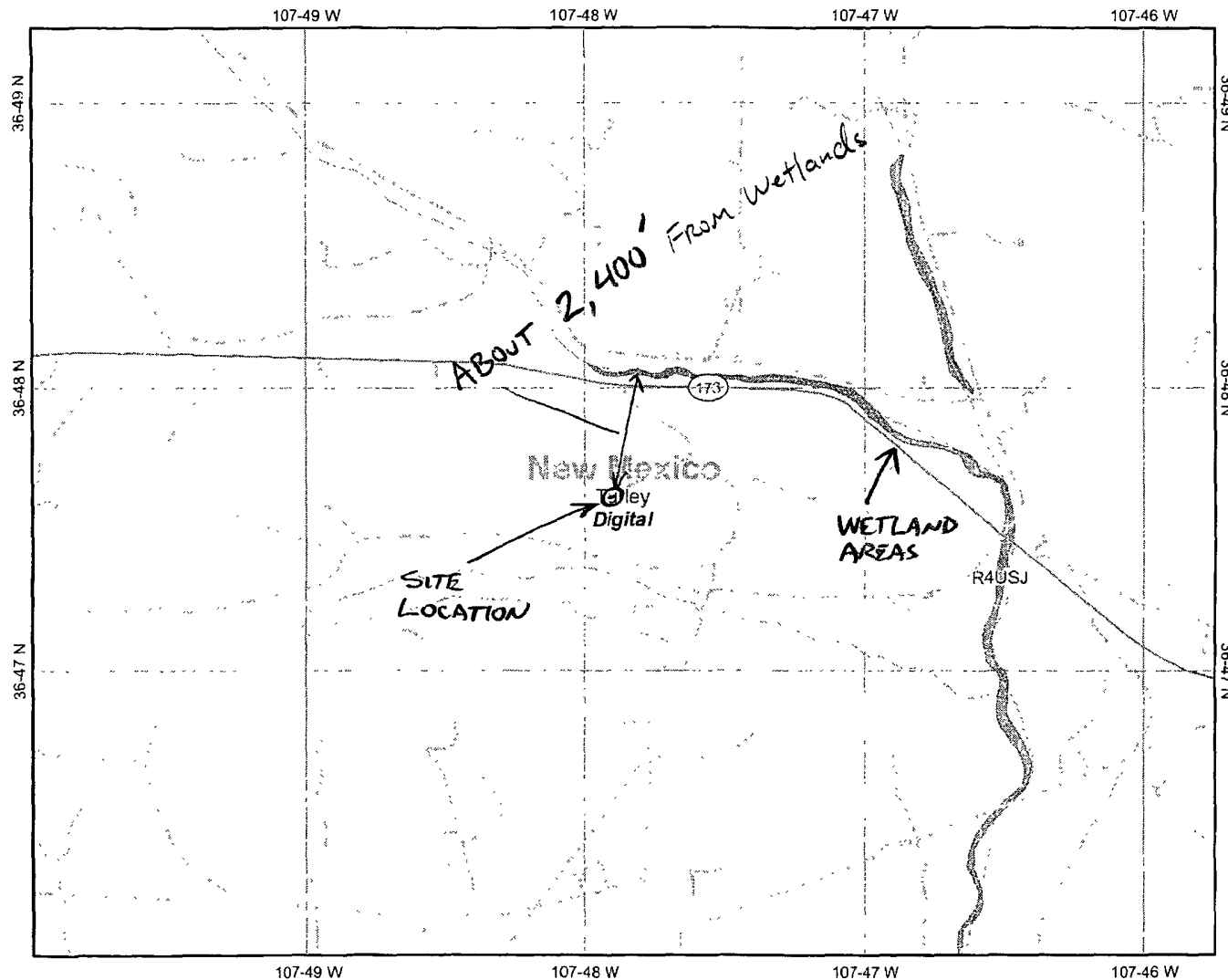


## Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



Scale: 1:42,311

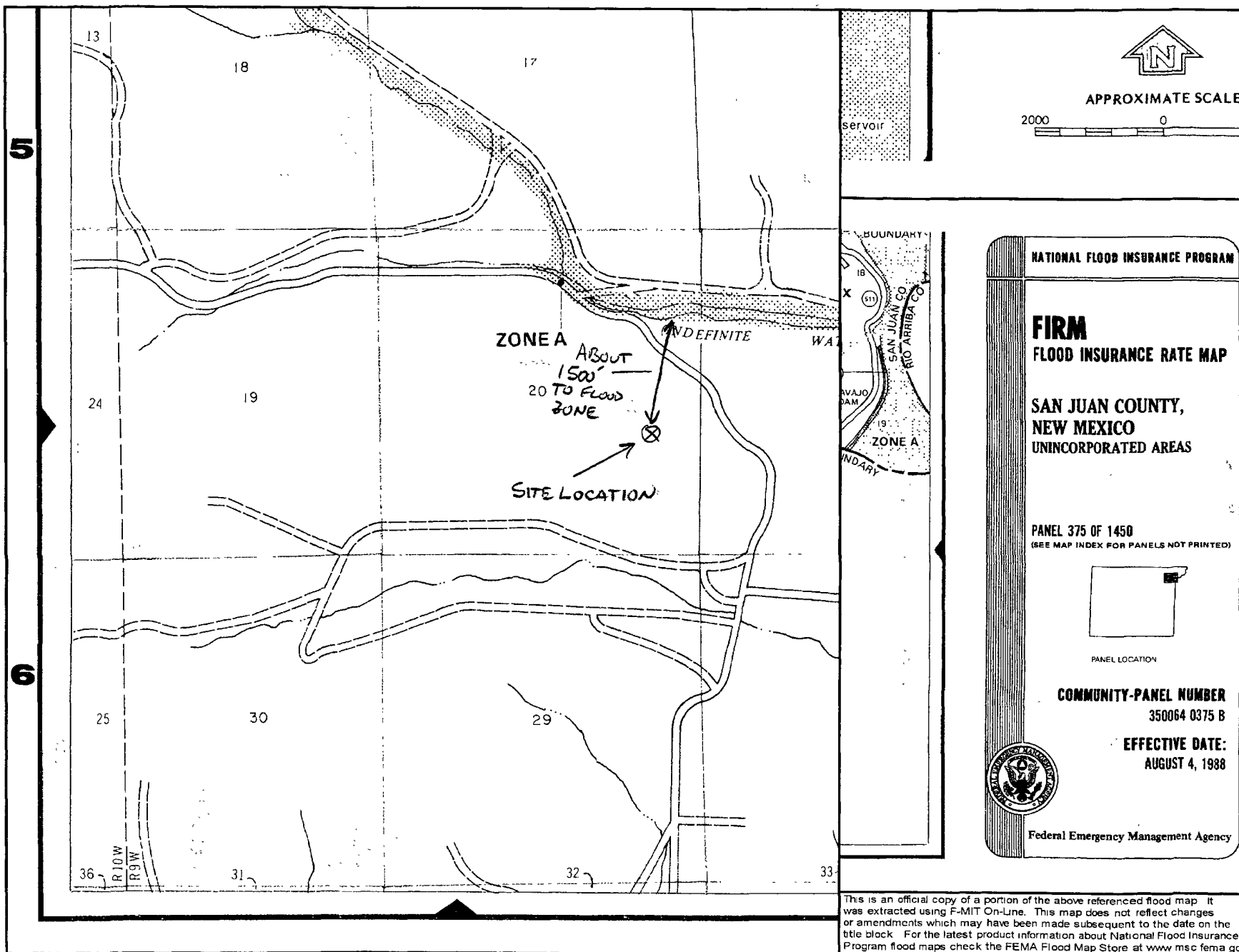


Map center: 36° 47' 38" N, 107° 47' 52" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes. (I) Sec 20 - T30N - R9W

San Juan Co, NM





*New Mexico Office of the State Engineer*  
**POD Reports and Downloads**

Township:  Range:  Sections:

NAD27 X:  Y:  Zone:  Search Radius:

County:  Basin:  Number:  Suffix:

Owner Name: (First)  (Last)  ☐ Non-Domestic ☐ Domestic ☒ All

POD / SURFACE DATA REPORT 07/14/2008

(quarter

(quarter

Sc

(acre ft per annum)  
DB File Nbr      Use      Diversion      Owner

POD Number

No Records found, try again

# BP AMERCIA PRODUCTION COMPANY

## SAN JUAN BASIN, NORTHWEST NEW MEXICO

### TEMPORARY PIT GENERAL CLOSURE PLAN

As stipulated in Rule 19.15.17.13 NMAC, the following information adheres to the requirements established in closing temporary pits (drilling and workover pits) on BP America Production Company (BP) well sites. This plan will address the standard protocols and procedures for closure of temporary pits. If deviations from this plan are necessary, any specific changes will be included with NMOCD Form C-144.

BP shall close its temporary pit(s) 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 or the environment. BP shall close any other permitted temporary pit within six months from the date that BP releases the drilling or workover rig. The date of the drilling or workover rig's release will be noted on either form C-105 or C-103 upon well or workover completion. It is understood that the division District III office in Aztec, New Mexico may grant an extension not to exceed three months. All necessary documentation to achieve closure will be as directed on NMOCD's form C-144.

The following outline addresses all requirements for closure of BP's temporary pits;

1. Removal of all liquids from the pit prior to closure and dispose of the liquids in a NMOCD division-approved facility or recycle, reuse or reclaim the liquids in a manner that the division District III office approves. A list of proposed, authorized and permitted disposal sites is included at the end of this plan.
2. BP's first option for closure will be on-site burial. BP shall demonstrate and comply with the siting requirements in Subsection C of 19.15.17.10 NMAC and the closure requirements and standards of Subsection F of 19.15.17.13 NMAC. If the site requirements dictate otherwise, waste excavation and removal (See item 7, below) will be implemented. Otherwise, an alternative method (presented to the environmental bureau in Santa Fe) may be presented to NMOCD for approval.
3. Notification to the surface owner by certified mail, with return receipt request, will be given prior to BP's intent on conducting, with NMOCD's pre-approval, on-site closure. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is understood to demonstrate compliance with this requirement.
4. In addition, notification will also be given to 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 well name and number to be closed, legal description utilizing unit letter, section, township, range, and API number.
5. Prior to in place closing an existing temporary pit, stabilization or solidification of its contents to a bearing capacity sufficient to support the pit's final cover will be completed. A mixture with soil or other material will not exceed a mixing ratio of 3:1, soil or other material to contents.
6. The pit content will be sampled by collecting, at a minimum, a five (5) point composite and adhering to 19.15.17.13F (2c or 2d). Based on the site criteria applied to the pit location, the following constituents will be analyzed by a qualified laboratory.

Constituents	Testing Method	Closure Standards (mg/Kg)
Benzene	US EPA Method SW-846 8021B or 8260B	0.2
Total BTEX	US EPA Method SW-846 8021B or 8260B	50
TPH	US EPA Method SW-846 418.1	2,500
TPH	US EPA Method SW-846 8015M (GRO + DRO Combined Fraction)	500
Chlorides	US EPA Method 300.1	1,000 (gw >100')

Notes: mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons, gw = groundwater, 50-100 or >100 = depths (in feet) below the bottom of the buried waste.

It is understood that BP has the option to collect a 5 point composite sample prior to treatment or stabilization to demonstrate that the contents do not exceed the closure limits. If however the pit contents collected prior to treatment or stabilization exceed the specified concentrations limits, then a second 5 point composite sample of the contents after treatment or stabilization will be collected to demonstrate that the contents do not exceed those limits.



7. If waste excavation and removal is performed, BP will follow 19.15.17.13B (1). This will include (a) excavation of all pit contents and, if applicable, synthetic liners and transferring those materials to a NMOCD approved facility, and (b) testing the soils below the temporary pit to determine whether a release has occurred. At a minimum, a 5 point composite soil sample will be collected and tested as follows:

Constituents	Testing Method	Closure Standards (mg/Kg)
Benzene	US EPA Method SW-846 8021B or 8260B	0.2
Total BTEX	US EPA Method SW-846 8021B or 8260B	50
TPH	US EPA Method SW-846 418.1	2,500
TPH	US EPA Method SW-846 8015M (GRO + DRO Combined Fraction)	500
Chlorides	US EPA Method 300.1	1,000 (gw > 100')

**Notes:** mg/Kg = milligram per kilogram, BTEX = benzene, toluene, ethylbenzene, and total xylenes, TPH = total petroleum hydrocarbons, gw = groundwater, 50-100 or >100 = depths (in feet) below the bottom of the buried waste.

**It is understood that BP has the option to collect a 5 point composite sample prior to treatment or stabilization to demonstrate that the contents do not exceed the closure limits. If however the pit contents collected prior to treatment or stabilization exceed the specified concentrations limits, then a second 5 point composite sample of the contents after treatment or stabilization will be collected to demonstrate that the contents do not exceed those limits.**

8. Within 60 days of closure completion, submittal of a closure report on NMOCD's form C-144, with necessary attachments to document all closure activities including sampling results; information required by 19.15.17 NMAC; a plot plan; and details on back-filling, capping and covering, where and if applicable, will be furnished. BP will 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. BP will also provide a plat of the pit location on form C-105 within 60 days of closing the pit.
9. Upon closure of a temporary pit, BP shall cover the geomembrane lined, filled, temporary pit with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.
10. Reclamation will follow 19.15.17.13G (1) and (2).
  - a. Once closure has been achieved for the temporary pit, the pit location and any associated access road(s) will be reclaimed to a safe and stable condition that blends with the surrounding undisturbed area. The impacted surface area will be substantially restored to the condition that existed prior to operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, recontour 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.
11. Soil cover will follow 19.15.17.13H (1), (2), and (3).
  - a. The soil cover for closures where the pit contents has been removed or remediated to the division'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.
  - b. The soil cover for burial-in-place shall consist of a minimum of four feet of compacted, non-waste containing, earthen material. The soil cover shall include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. In addition, the soil cover will be constructed to the site's existing grade and all possible efforts will be conducted to prevent ponding of water and erosion of the cover material.
12. Revegetation will follow 19.15.17.13I (1), (2), (3), (4) and (5).
  - a. Revegetation of the pit location and any associated access road(s) will be attempted during the first growing season after closure of the pit with seeding or planting of the disturbed areas. Seeding will be accomplished by tilling/plowing 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.
  - b. Seeding or planting will be repeated until it successfully achieves the required vegetative cover.



- c. When conditions are not favorable for the establishment of vegetation, such as periods of drought, it is understood that the division may allow sufficient time to delay seeding or planting until soil moisture conditions become favorable. In addition, the division may require BP to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices.
  - d. Notification will be given to the division District III office when seeding or planting has been successfully achieved.
- 13. The temporary pit will be located with a steel marker, no less than four (4) inches in diameter, cemented in a hole three (3) feet deep at the center of the on-site burial location at the time of abandonment of all wells on the well pad. The marker will be flush with the ground surface to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will include a welded steel 12-inch square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four (4) foot steel riser will be threaded into the top of the collar marker and welded around the base with BP's name, well name and number, legal designation with unit letter, section, township range, and on-site burial label (i.e. temporary pit marker). The marker designation and label will be welded, stamped or otherwise permanently engraved into the metal of the steel marker. Permanent structures over the on-site burial will be prohibited without the division District III office's written approval. No person shall remove the on-site burial marker without the division's written permission.
  - a. The exact location of the on-site burial will be reported on NMOCD's form C-105.
  - b. A deed notice identifying the exact location of the on-site burial will be filed with the county clerk, located in Aztec, NM.
  - c. BP may request a modification to the marker, if, necessary activities and/or safety concerns develop in future efforts to increase production or during final plug and abandonment of the well itself. BP will adhere to the requirements of such a request as specified within 19.15.17.15A (1) NMAC.

Proposed waste disposal sites:

BP Crouch Mesa Landfarm, Permit NM-02-003  
JFJ Landfarm, Permit NM-01-010(B)  
Basin Disposal, Permit NM-01-0005  
BP Operated E.E. Elliott SWD #1, API 30-045-27799  
BP Operated 13 GCU SWD #1, API 30-045-28601  
BP Operated GCU 259 SWD, API 30-045-20006  
BP Operated GCU 306 SWD, API 30-045-24286  
BP Operated GCU 307 SWD, API 30-045-24248  
BP Operated GCU 328 SWD, API 30-045-24735  
BP Operated Pritchard SWD #1, API 30-045-28351



**BP America Production Company**  
200 Energy Court  
Farmington, NM 87401  
Phone: (505) 326-9200

July 15, 2008

Bureau of Land Management  
1235 La Plata Highway  
Farmington, NM 87401

RE: Notice of Proposed Temporary Pit Construction  
Florance 52  
Unit I, Section 20, Township 32N, Range 9W

Dear Mr. Herman Lujan:

In regards to the captioned subject and requirements of the new NMOCD pit rule, this letter is notification that BP America Production Company is planning to close the proposed temporary pit that will be used for workover operations on this location.

Should you have any questions, please feel free to contact me at 326-9425 in our Farmington office.

Sincerely,

Larry Schlotterback  
Field Environmental Coordinator