

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
Revised April 3, 2017

**For temporary pits, below-grade tanks, and multi-well fluid management pits**, submit to the appropriate NMOC District Office.  
**For permanent pits** submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOC District Office.

Pit, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application

BGT1

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

**Instructions: Please submit one application (Form C-144) per individual pit, 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: Hilcorp Energy Company OGRID #: 372171  
Address: 382 Road 3100 Aztec, NM 87410  
Facility or well name: SAN JUAN 22  
API Number: 3004507687 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr E Section 33 Township 29N Range 9W County: San Juan  
Center of Proposed Design: Latitude 36.68442 Longitude -107.79126 NAD27  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC  
Temporary: ☐ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume: \_\_\_\_\_ bbl Dimensions: L \_\_\_\_\_ x W \_\_\_\_\_ x D \_\_\_\_\_

3.

☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: 120 bbl Type of fluid: Produced Water  
Tank Construction material: Metal  
☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
Liner type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☒ Other Unspecified

4.

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

5.

**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)  
☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)  
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet  
☐ Alternate. Please specify \_\_\_\_\_

6.

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

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

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

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

8.

**Variations and Exceptions:**

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

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

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

9.

**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. Siting criteria does not apply to drying pads or above-grade tanks.*****General siting****Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**

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

☐ Yes ☐ No  
☒ NA

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

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

☐ Yes ☐ No  
☒ NA

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. **(Does not apply to below grade tanks)**

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

☐ Yes ☐ No

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)**

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

☐ Yes ☐ No

Within an unstable area. **(Does not apply to below grade tanks)**

- 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. **(Does not apply to below grade tanks)**

- FEMA map

☐ Yes ☐ No

**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

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

☐ Yes ☒ No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

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

☐ Yes ☒ No

**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

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

☐ Yes ☐ No

Within 300 feet from a occupied 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 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

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

☐ Yes ☐ No

Within 100 feet of a wetland.

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

☐ Yes ☐ No

### **Temporary Pit Non-low chloride drilling fluid**

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any 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 spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

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

☐ Yes ☐ No

Within 300 feet of a wetland.

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

☐ Yes ☐ No

### **Permanent Pit or Multi-Well Fluid Management Pit**

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 1000 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 spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

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

☐ 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

10.

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

11.

#### **Multi-Well Fluid Management Pit 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.

- ☐ 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
- ☐ A List of wells with approved application for permit to drill associated with the pit.
- ☐ 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
- ☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

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

12.

**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

13.

**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 ☐ Multi-well Fluid Management Pit  
☐ 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

14.

**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 C 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 H of 19.15.17.13 NMAC  
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

**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 require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 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 25-50 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 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 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, 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 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, 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
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 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 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 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

16.

**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 E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K 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 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements 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 H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.

**Operator Application Certification:**

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

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

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

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

18.

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

**OCD Representative Signature:** \_\_\_\_\_ **Approval Date:** \_\_\_\_\_

**Title:** \_\_\_\_\_ **OCD Permit Number:** \_\_\_\_\_

19.

**Closure Report (required within 60 days of closure completion):** 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:** 09/16/2024

20.

**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.

21.

**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 for private land only)
- ☐ 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 \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: ☐ 1927 ☐ 1983

22.

**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): Tammy Jones Title: Operations/Regulatory Technician – Sr

Signature: Tammy Jones Date: 10/14/2024

e-mail address: tajones@hilcorp.com Telephone: (505) 324-5185

Hilcorp Energy Company  
BGT Modification

Hilcorp Energy Company is requesting to modify the below-grade tank permit for SAN JUAN 22 (30.045.07687) as follows:

- Hilcorp Energy would like to base the BGT permit/registration on the current 19.15.17 NMAC rule. The closure plan includes an updated confirmation sampling limits, Table I attached.
- Hilcorp Energy requests approval to use the 8015D method and add together DRO, MRO and GRP for TPH result.

<b>Table I</b> <b>Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed</b>			
Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

\*Or other test methods approved by the division

\*\*Numerical limits or natural background level, whichever is greater

**Hilcorp Energy Company**  
**San Juan Basin: New Mexico Assets**  
Below Grade Tank Closure Report

**Lease Name:** SAN JUAN 22

**API No.:** 30-045-07687

In accordance with Rule 19.15.17.13 NMAC, the following information describes the closure of the below-grade tank referenced above. All proper documentation regarding closure activities is being included with the C-144.

**General Plan Requirements:**

1. Prior to initiating any BGT closure, except in the case of an emergency, HILCORP will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or one week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner will be notified as soon as practical.

**The surface owner was notified by email of the closure process and the notification is attached.**

2. Notice of closure will be given to the District Division office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
  - a. Operators Name
  - b. Well Name and API Number
  - c. Location

**Notification is attached.**

3. All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed of at one of HILCORP's approved Salt Water Disposal facilities or at a District Division approved facility.

**All recovered liquids were disposed of at an approved SWD facility or an approved District Division facility within 60 days of cessation of operation.**

4. Solids and sludge's will be shoveled and/or vacuumed out for disposal at one of the District Division approved facilities, depending on the proximity of the BGT site: Envirotech Land Farm (Permit #NM-01-011), JFJ Land Farm % Industrial Ecosystems Inc. (Permit #NM-01-0010B), and Basin Disposal (Permit #NM-01-005).

**Any sludge or soil required to be removed to facilitate closure was transported to Envirotech Land Farm (Permit # NM-01-011) and/or JFJ Landfarm % IEI (Permit# NM-01-0010B).**

Revised 10/14/2015

5. HILCORP will obtain prior approval from District Division to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the District Division. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liner materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC. Disposal will be at a licensed disposal facility, presently San Juan County Landfill operated by Waste Management under NMED Permit SWM-052426.

**The below-grade tank was disposed of in a division-approved manner. The liner was cleaned per 19.15.35.8.C(1)(m) NMAC and disposed of at the San Juan County Regional Landfill located on CR 3100.**

6. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure, will be removed.

**All on-site equipment associated with the below-grade tank was removed.**

7. Following removal of the tank and any liner material, HILCORP will test the soils beneath the BGT as follows:
  - a. At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.
  - b. The laboratory sample shall be analyzed for the constituents listed in Table I of 19.15.17.13.

**A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Table I of 19.15.17.13 and the results are attached.**

8. If the District Division and/or HILCORP determine there is a release, HILCORP will comply with 19.15.17.13.C.3b.

**A release was not determined for the above referenced well.**

9. Upon completion of the tank removal, pursuant to 19.15.17.13.C.3c, if all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and to prevent ponding.

**The tank removal area passed all requirements of Table I of 19.15.17.13 NMAC and was backfilled with compacted, non-waste containing, earthen material which included at least one foot of suitable material to establish vegetation at the site.**

Revised 10/14/2015

10. For those portions of the former BGT area no longer required for production activities, HILCORP will seed the disturbed area the first favorable growing season after the BGT is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other District Division-approved methods. HILCORP will notify the District Division when reclamation and re-vegetation is complete.

Reclamation of the BGT shall be considered complete when:

- Vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels.
- Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds) OR
- Pursuant to 19.15.17.13.H.5d HILCORP will comply with obligations imposed by other applicable federal or tribal agencies in which there re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

**Provision 10 will be accomplished pursuant to 19.15.17.H.5d and notification will be submitted upon completion.**

11. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

**The former BGT area is required for production activities and reseeding will be completed upon plug and abandonment, per the procedure noted above.**

**Closure Report:**

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using District Division Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner and District Division) **(Attached)**
- Backfilling & cover installation **(See Report)**
- Confirmation Sampling Analytical Results **(Attached)**
- Application Rate & Seeding techniques **(See Report)**
- Photo Documentation of Reclamation **(Attached)**

Revised 10/14/2015

**Tammy Jones**

---

**From:** Adeloye, Abiodun A <aadeloye@blm.gov>  
**Sent:** Friday, May 3, 2024 7:58 AM  
**To:** Tammy Jones; Brandon Sinclair; Clara Cardoza; Dale Crawford; Mike Murphy; Mitch Killough; Ben Mitchell; Ramon Hancock; Lisa Jones; Wells, Shelly, EMNRD; Victoria Venegas (Victoria.Venegas@emnrd.nm.gov); John LaMond; Farmington Regulatory Techs; James Osborn  
**Subject:** RE: [EXTERNAL] 72 Hour BGT Closure Notification - SAN JUAN 22 (API# 30-045-07687)

**CAUTION:** External sender. DO NOT open links or attachments from UNKNOWN senders.

Thanks, Tammy.

Abiodun Adeloye (Emmanuel)  
Natural Resources Specialist (NRS)  
6251 College Blvd., Suite A  
Farmington, NM 87402  
Office: 505-564-7665  
Mobile: 505-635-0984

---

**From:** Tammy Jones <tajones@hilcorp.com>  
**Sent:** Thursday, May 2, 2024 7:19 AM  
**To:** Adeloye, Abiodun A <aadeloye@blm.gov>; Brandon Sinclair <Brandon.Sinclair@hilcorp.com>; Clara Cardoza <ccardoza@hilcorp.com>; Dale Crawford <dcrawford@hilcorp.com>; Mike Murphy <mmurphy@hilcorp.com>; Mitch Killough <mkillough@hilcorp.com>; Ben Mitchell <bemitchell@hilcorp.com>; Ramon Hancock <Ramon.Hancock@hilcorp.com>; Lisa Jones <ljones@hilcorp.com>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; Victoria Venegas (Victoria.Venegas@emnrd.nm.gov) <Victoria.Venegas@emnrd.nm.gov>; John LaMond <jlamond@hilcorp.com>; Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; James Osborn <josborn@hilcorp.com>  
**Subject:** [EXTERNAL] 72 Hour BGT Closure Notification - SAN JUAN 22 (API# 30-045-07687)

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

**Subject: 72 Hour BGT Closure Notification**

**Anticipated Start Date:** Friday, 05/10/2024 at 8:30 AM MST

The subject well has a below-grade tank that will be permanently removed. The BGT permit is attached. Please contact me if you have any questions or concerns.

**Well Name:** SAN JUAN 22

**API#:** 30-045-07687

**Location:** Unit E, Section 33, T29N, R09W

Operator: Hilcorp Energy      Surface Owner: FEDERAL

Reason: Well has been P&A'd.

**\*\*Please Note Required Photos for Closure\*\***

- Well site placard
- Photos of the BGT prior to closure
- The sample location or, more preferred, photos of actual sample collection
- Final state of the area after closure.
- Photos will require captioning including direction of photo, date and time of photo and a description of the image contents.

Thanks,

*Tammy Jones* | **HILCORP ENERGY COMPANY** | San Juan Regulatory | 505.324.5185 | [tajones@hilcorp.com](mailto:tajones@hilcorp.com)

---

The information contained in this email message is confidential and may be legally privileged and is intended only for the use of the individual or entity named above. If you are not an intended recipient or if you have received this message in error, you are hereby notified that any dissemination, distribution, or copy of this email is strictly prohibited. If you have received this email in error, please immediately notify us by return email or telephone if the sender's phone number is listed above, then promptly and permanently delete this message.

While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening, or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

---

DIRECTION  
62 deg(T)

36.68450°N  
107.79206°W

ACCURACY 5 m  
DATUM WGS84



San Juan 22

Dry Hole Marker

2024-05-10  
10:08:39-06:00

DIRECTION  
257 deg(T)

36.68441°N  
107.79198°W

ACCURACY 5 m  
DATUM WGS84



San Juan 22

Before Removal

2024-05-10  
10:09:43-06:00

DIRECTION  
59 deg(T)

36.68440°N  
107.79214°W

ACCURACY 5 m  
DATUM WGS84



San Juan 22

After Removal  
with Composite  
Sample Points

2024-05-10  
13:26:13-06:00

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Mitch Killough	Contact Telephone 713-757-5247
Contact email mkillough@hilcorp.com	Incident #
Contact mailing address 1111 Travis Street, Houston, Texas 77002	

Location of Release Source

Latitude 36.68442 \_\_\_\_\_ Longitude -107.79126 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name San Juan 22	Site Type Well
Date Release Discovered: N/A	API# 30-045-07687

Unit Letter	Section	Township	Range	County
E	33	29N	09W	San Juan

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)


Cause of Release:  
Per the email guidance attached (dated 8/16/2024), NMOCD has confirmed that no release needs to be reported. Hilcorp determined that TPH exceeded the maximum BGT closure criteria threshold shown in Condition 5 of the closure plan. Thus, indicating that a potential release occurred. However, TPH did not exceed the Closure Criteria for Soils Beneath Below-Grade Tanks listed in current Table I of 19.15.17.13 NMAC for groundwater depths (>100 ft). In light of this, Hilcorp respectfully requests 1) a modification to the current BGT permit/registration allowing Hilcorp to compare the laboratory analytical to the current 19.15.17 NMAC rule and 2) approval to use EPA Method 8015D for TPH analysis. Hilcorp has also attached the Exception/Variance Request (dated 8/15/2024).

Incident ID	
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  <b>Not Required</b>	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Mitch Killough</u> Title: <u>Environmental Specialist</u>	
Signature: <u></u> Date: <u>09/16/2024</u>	
email: <u>mkillough@hilcorp.com</u> Telephone: <u>713-757-5247</u>	
<b><u>OCD Only</u></b>	
Received by: _____ Date: _____	

Mitch Killough

---

From: Kennedy, Joseph, EMNRD <Joseph.Kennedy@emnrd.nm.gov>  
Sent: Friday, August 16, 2024 11:56 AM  
To: Mitch Killough  
Subject: [EXTERNAL] Hilcorp - Legacy BGT Closures - 19.15.17.13 NMAC Guidance for API# 30-045-07687 San Juan 22  
Attachments: C-141 Filing (exception\_variance request) - San Juan 22 - 08152024.pdf

**CAUTION:** External sender. DO NOT open links or attachments from UNKNOWN senders.

Dear Mr. Killough,

OCD has reviewed the email dated 8/15/2024, submitted to my supervisor, Leigh Barr, from Hilcorp Energy Company (HEC) and found that the 5 point composite sample taken below the BGT associated with API: 30-045-07687 San Juan 22, has results for TPH (utilizing DRO+MRO+GRO) of 148 mg/kg, which exceeds the limit of the permit/registration of 12/22/08. This BGT was permitted/registered under the older 19.15.17 NMAC rule which states a maximum TPH limit of 100 mg/kg. These limits were also included in the approved closure plan.

OCD has also determined that the depth to groundwater determination in the aforementioned permit/registration, approved by the OCD, is greater than 100' feet. The OCD understands that the current 19.15.17 NMAC rule has a less stringent TPH limit, and that HEC did not exceed the TPH limit in the current rule, based on this depth to groundwater. Therefore, HEC can request a modification to their existing permit/registration utilizing the C-144 Form. The modification request should state that HEC wants their BGT permit/registration to be based on the current 19.15.17 NMAC rule. HEC also needs to include an update to the closure plan's confirmation sampling limits. No release needs to be reported.

Please note that Table 1 of 19.15.17.13 NMAC specifies that TPH be analyzed using EPA SW-846 Method 418.1. The lab report HEC submitted to OCD on 8/15/2024 shows the analysis for TPH used method 8015D for DRO, GRO and MRO. HEC should request approval to use these methods and add together DRO, MRO and GRO for TPH result, and include this in your modification request.

***For simplicity, HEC can combine theses modification requests in conjunction with the final closure report.***

The OCD is granting approval for HEC to backfill the area and then to proceed with revegetation. Once closure is completed, HEC must submit a final closure report that addresses all components in the approved closure plan (e.g., waste disposal methods/disposal site name, proof surface owner was notified, etc.). HEC must submit the final closure report, utilizing the C-144 Form, to the OCD within 60-days of closure completion. In this C-144 application, HEC also needs to ask for the modification request and check the Type of action

“Modification to an existing permit/or registration” in conjunction with the “Closure of a pit, below-grade tank, or proposed alternative method.” All applicable sections for the closure report need to be filled out and section 16 needs to be checked for “Confirmational Sampling Plan.” HEC needs to include the updated closure plan’s confirmation sampling limits.

Please do not hesitate to contact me if you have any questions.

Respectfully,

**Joe Kennedy** • Environmental Scientist Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 S. Saint Francis Drive | Santa Fe, New Mexico 87505  
(505) 549-5583 | [joseph.kennedy@emnrd.nm.gov](mailto:joseph.kennedy@emnrd.nm.gov)  
[www.emnrd.nm.gov](http://www.emnrd.nm.gov)

---

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Mitch Killough	Contact Telephone 713-757-5247
Contact email mkillough@hilcorp.com	Incident #
Contact mailing address 1111 Travis Street, Houston, Texas 77002	

Location of Release Source

Latitude 36.68442 \_\_\_\_\_ Longitude -107.79126 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name San Juan 22	Site Type Well
Date Release Discovered: 5/28/2024 @ 05:01 pm (MT) – Date/Time Eurofins laboratory report received	API# 30-045-07687

Unit Letter	Section	Township	Range	County
E	33	29N	09W	San Juan

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) Unknown	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Historical release discovered during the permanent removal of a below-grade tank (BGT). Refer to attached memo (dated 8/15/2024) for additional information.


Per the memo attached, Hilcorp determined that total petroleum hydrocarbons (TPH) exceeded the BGT closure criteria thresholds shown in Condition 5 of the closure plan. Thus, indicating that a potential release occurred. However, TPH did not exceed the Closure Criteria for Soils Beneath Below-Grade Tanks listed in Table I of 19.15.17.13 NMAC for groundwater depths (>100 ft).

Incident ID	
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Mitch Killough</u>	Title: <u>Environmental Specialist</u>
Signature: <u></u>	Date: <u>08/15/2024</u>
email: <u>mkillough@hilcorp.com</u>	Telephone: <u>713-757-5247</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____



## Memorandum

To: Energy, Minerals, and Natural Resources Department (EMNRD) – Permitting Program

From: Mitch Killough, Hilcorp Energy Company (Hilcorp)

Date: 8/15/2024

Subject: San Juan 22 – Permanent Closure of a Below-Grade Tank (BGT) – Exception/Variance Request

On 5/2/2024, Hilcorp submitted a 72-hour notice prior to the permanent closure of a BGT at the San Juan 22, San Juan County, New Mexico. As required by Condition 5 (*found in the enclosed Closure Plan, certified by Burlington on 12/22/2008*), Hilcorp personnel proceeded to collect a 5-pt composite soil sample on 5/10/2024 to determine if any contaminant concentrations exceeded the BGT closure criteria thresholds, per Condition 5. Upon receiving analytical results on 5/28/2024, Hilcorp determined that total petroleum hydrocarbons (TPH) exceeded the BGT closure criteria thresholds shown in Condition 5 of the closure plan. Thus, indicating that a potential release occurred (refer to table below). However, TPH did not exceed the Closure Criteria for Soils Beneath Below-Grade Tanks listed in Table I of 19.15.17.13 NMAC for groundwater depths (>100 ft bgs).

Soil Sample Identification	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)
Bottom Comp	5/10/2024	<0.025	<0.050	<0.050	<0.099	<0.224	<59	<5.0	28	120	<33.0	<153.0
NMOCB BGT Closure Criteria		0.2	NE	NE	NE	50	250	NE	NE	NE	NE	100
Table I of 19.15.17.13 NMAC		10	NE	NE	NE	50	20,000	NE	NE	NE	1,000	2,500

In accordance with 19.15.17.13(C)(3)(c) NMAC, all contaminant concentrations are less than the parameters listed in Table I of 19.15.17.13 NMAC for groundwater depths (>100 ft). Based on this determination and the date of the BGT registration, Hilcorp respectfully requests an exception/variance approval per 19.15.17.13(E)(5) NMAC (effective 6/16/2008; amended 7/16/2009) to proceed with final backfilling/re-contouring since all laboratory analytes in the 5-point composite soil sample are below closure thresholds listed in Table I of 19.15.29.12 NMAC for groundwater depths (>100 ft) and would be deemed non-reportable to the NMOCB. A Site Characterization performed by Ensolum, LLC is also being provided to further support Hilcorp's determination that this site falls in the least stringent Table 1 closure criteria for both 19.15.17.13 NMAC and 19.15.29.12 NMAC.

If any additional information is needed for this exception/variance request, please let me know.

Enclosures: Eurofins Lab Report (dated 5/28/2024)  
Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application (certified by Burlington on 12/22/2008)  
Site Characterization (provided by Ensolum, LLC)

---

**Hilcorp Energy Company**  
1111 Travis Street, Houston, Texas 77002  
T 713.209.2400 F 713.289.2750



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kate Kaufman  
Hilcorp Energy  
PO BOX 4700  
Farmington, New Mexico 87499

Generated 5/28/2024 3:29:49 PM

## JOB DESCRIPTION

San Juan 22

## JOB NUMBER

885-4434-1

Eurofins Albuquerque  
4901 Hawkins NE  
Albuquerque NM 87109

# Eurofins Albuquerque

## Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated  
5/28/2024 3:29:49 PM

Authorized for release by  
Andy Freeman, Business Unit Manager  
[andy.freeman@et.eurofinsus.com](mailto:andy.freeman@et.eurofinsus.com)  
(505)345-3975

Client: Hilcorp Energy  
Project/Site: San Juan 22

Laboratory Job ID: 885-4434-1

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	7
QC Association Summary . . . . .	9
Lab Chronicle . . . . .	11
Certification Summary . . . . .	12
Chain of Custody . . . . .	13
Receipt Checklists . . . . .	14



Definitions/Glossary

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Hilcorp Energy  
Project: San Juan 22

Job ID: 885-4434-1

Job ID: 885-4434-1

Eurofins Albuquerque

Job Narrative  
885-4434-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 5/14/2024 6:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C.

Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

Client Sample ID: Bottom Comp      Lab Sample ID: 885-4434-1  
Date Collected: 05/10/24 13:30      Matrix: Solid  
Date Received: 05/14/24 06:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/14/24 14:16	05/16/24 21:38		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		35 - 166			05/14/24 14:16	05/16/24 21:38		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		05/14/24 14:16	05/16/24 21:38		1
Ethylbenzene	ND		0.050	mg/Kg		05/14/24 14:16	05/16/24 21:38		1
Toluene	ND		0.050	mg/Kg		05/14/24 14:16	05/16/24 21:38		1
Xylenes, Total	ND		0.099	mg/Kg		05/14/24 14:16	05/16/24 21:38		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		48 - 145			05/14/24 14:16	05/16/24 21:38		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	28		9.7	mg/Kg		05/15/24 11:48	05/15/24 16:27		1
Motor Oil Range Organics [C28-C40]	120		48	mg/Kg		05/15/24 11:48	05/15/24 16:27		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	93		62 - 134			05/15/24 11:48	05/15/24 16:27		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		59	mg/Kg		05/15/24 14:26	05/15/24 22:45		20

QC Sample Results

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-4964/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5136						Prep Batch: 4964			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/14/24 14:16	05/16/24 11:04	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		35 - 166			05/14/24 14:16	05/16/24 11:04	1	

Lab Sample ID: LCS 885-4964/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5136						Prep Batch: 4964			
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics [C6 - C10]		25.0	24.0		mg/Kg		96	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	189	S1+	35 - 166						

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-4964/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5137						Prep Batch: 4964			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		05/14/24 14:16	05/16/24 11:04	1	
Ethylbenzene	ND		0.050	mg/Kg		05/14/24 14:16	05/16/24 11:04	1	
Toluene	ND		0.050	mg/Kg		05/14/24 14:16	05/16/24 11:04	1	
Xylenes, Total	ND		0.10	mg/Kg		05/14/24 14:16	05/16/24 11:04	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	89		48 - 145			05/14/24 14:16	05/16/24 11:04	1	

Lab Sample ID: LCS 885-4964/3-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5137						Prep Batch: 4964			
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene		1.00	0.917		mg/Kg		92	70 - 130	
Ethylbenzene		1.00	0.878		mg/Kg		88	70 - 130	
m&p-Xylene		2.00	1.76		mg/Kg		88	70 - 130	
o-Xylene		1.00	0.862		mg/Kg		86	70 - 130	
Toluene		1.00	0.864		mg/Kg		86	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	90		48 - 145						

QC Sample Results

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-5028/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5077						Prep Batch: 5028			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		05/15/24 11:48	05/15/24 13:49	1	
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/15/24 11:48	05/15/24 13:49	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	92		62 - 134			05/15/24 11:48	05/15/24 13:49	1	

Lab Sample ID: LCS 885-5028/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5077						Prep Batch: 5028			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	50.0	48.0		mg/Kg		96	60 - 135		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	117		62 - 134						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-4995/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5082						Prep Batch: 4995			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		1.5	mg/Kg		05/15/24 07:57	05/15/24 10:03	1	

Lab Sample ID: MRL 885-4995/3-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5082						Prep Batch: 4995			
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1.50	1.57		mg/L		105	50 - 150		

Lab Sample ID: MB 885-5043/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5082						Prep Batch: 5043			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		1.5	mg/Kg		05/15/24 14:26	05/15/24 20:29	1	

Lab Sample ID: LCS 885-5043/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 5082						Prep Batch: 5043			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	15.0	14.0		mg/Kg		93	90 - 110		

QC Association Summary

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

GC VOA

Prep Batch: 4964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	5030C	
MB 885-4964/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-4964/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-4964/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 5136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	8015D	4964
MB 885-4964/1-A	Method Blank	Total/NA	Solid	8015D	4964
LCS 885-4964/2-A	Lab Control Sample	Total/NA	Solid	8015D	4964

Analysis Batch: 5137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	8021B	4964
MB 885-4964/1-A	Method Blank	Total/NA	Solid	8021B	4964
LCS 885-4964/3-A	Lab Control Sample	Total/NA	Solid	8021B	4964

GC Semi VOA

Prep Batch: 5028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	SHAKE	
MB 885-5028/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-5028/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 5073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	8015D	5028

Analysis Batch: 5077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-5028/1-A	Method Blank	Total/NA	Solid	8015D	5028
LCS 885-5028/2-A	Lab Control Sample	Total/NA	Solid	8015D	5028

HPLC/IC

Prep Batch: 4995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-4995/1-A	Method Blank	Total/NA	Solid	300_Prep	
MRL 885-4995/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 5043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	300_Prep	
MB 885-5043/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-5043/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 5082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4434-1	Bottom Comp	Total/NA	Solid	300.0	5043
MB 885-4995/1-A	Method Blank	Total/NA	Solid	300.0	4995
MB 885-5043/1-A	Method Blank	Total/NA	Solid	300.0	5043

Eurofins Albuquerque

QC Association Summary

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

HPLC/IC (Continued)

Analysis Batch: 5082 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-5043/2-A	Lab Control Sample	Total/NA	Solid	300.0	5043
MRL 885-4995/3-A	Lab Control Sample	Total/NA	Solid	300.0	4995

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Lab Chronicle

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

Client Sample ID: Bottom Comp

Lab Sample ID: 885-4434-1

Date Collected: 05/10/24 13:30

Matrix: Solid

Date Received: 05/14/24 06:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			4964	AT	EET ALB	05/14/24 14:16
Total/NA	Analysis	8015D		1	5136	JP	EET ALB	05/16/24 21:38
Total/NA	Prep	5030C			4964	AT	EET ALB	05/14/24 14:16
Total/NA	Analysis	8021B		1	5137	JP	EET ALB	05/16/24 21:38
Total/NA	Prep	SHAKE			5028	JU	EET ALB	05/15/24 11:48
Total/NA	Analysis	8015D		1	5073	JU	EET ALB	05/15/24 16:27
Total/NA	Prep	300_Prep			5043	RC	EET ALB	05/15/24 14:26
Total/NA	Analysis	300.0		20	5082	RC	EET ALB	05/15/24 22:45

Laboratory References:  
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Hilcorp Energy  
Project/Site: San Juan 22

Job ID: 885-4434-1

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25

## Chain-of-Custody Record

Chain-of-Custody Record				Turn-Around Time: <i>5 days</i>		
Client: <u>Hilcorp</u>				<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush		
Mailing Address: _____				Project Name: _____		
Phone #: _____				Project #: <u>San Juan 22</u>		
email or Fax#: <u>brandon.sincclair@hilcorp.com</u>				Project Manager: _____		
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)				<u>Kate Kaufman</u>		
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other _____				Sampler: <u>Brandon Sincclair</u>		
<input type="checkbox"/> EDD (Type) _____				On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
				# of Coolers: <u>1</u>		
				Cooler Temp (including CF): <u>1940.1 = 20 (°C)</u>		
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5-10	1330	soil	Bottom Comp	402 jar cool		
Relinquished by: _____				Received by: <u>MT West</u>		
Date: <u>5/13/24</u> Time: <u>1707</u>				Date: <u>5/13/24</u> Time: <u>1707</u>		
Relinquished by: <u>[Signature]</u>				Received by: <u>[Signature]</u>		
Date: <u>5/13/24</u> Time: <u>1747</u>				Date: <u>5/14/24</u> Time: <u>6:55</u>		
Relinquished by: <u>[Signature]</u>				Received by: <u>[Signature]</u>		

[illegible]

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

## Login Sample Receipt Checklist

Client: Hilcorp Energy

Job Number: 885-4434-1

Login Number: 4434

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

District I

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144

July 21, 2008

Department  
Conservation Division  
1000 Rio Diazas Rd.,  
Santa Fe, NM 87505

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.

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

**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: Burlington Resources Oil & Gas Company, LP OGRID#: 14538  
Address: PO Box 4289, Farmington, NM 87499  
Facility or well name: SAN JUAN 22  
API Number: 3004507687 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr: E Section: 33 Township: 29N Range: 9W County: San Juan  
Center of Proposed Design: Latitude: 36.68442°N Longitude: -107.79126°W NAD: ☒ 1927 ☐ 1983  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

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

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

4  
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: 120 bbl Type of fluid: Produced Water  
Tank Construction material: Metal  
☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
Liner Type: Thickness \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☒ Other Unspecified

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.

Page 2 of 5

**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 \_\_\_\_\_ or Permit \_\_\_\_\_

**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 NMAC  
☐ 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 \_\_\_\_\_  
☐ Previously Approved Operating and Maintenance Plan API \_\_\_\_\_

**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 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

**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 (Below-Grade Tank)  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench  
☐ 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 #: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit #: \_\_\_\_\_

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) ☐ No

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

- ☐ Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17

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

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

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

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

☐ Yes ☐ No

☐ N/A

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

☐ N/A

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

☐ N/A

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakehed, 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

☐ 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 the 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

18

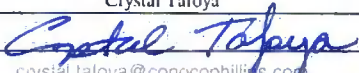
**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ 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): Crystal Tafoya Title: Regulatory Technician  
 Signature:  Date: 12/22/2008  
 e-mail address: crystal.tafoya@conocophillips.com Telephone: 505-326-9837

20

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

**OCD Representative Signature:** \_\_\_\_\_ **Approval Date:** \_\_\_\_\_

**Title:** \_\_\_\_\_ **OCD Permit Number:** \_\_\_\_\_

21

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

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

☐ **Closure Completion Date:** \_\_\_\_\_

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 (if applicable)  
☐ 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

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): \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

New Mexico Office of the State Engineer  
POD Reports and Downloads

Township: 29N Range: 09W Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

IWATERS Menu

Help

## WATER COLUMN REPORT 08/20/2008

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

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
SJ 01874	29N	09W	02							28	8	20
SJ 02347	29N	09W	02	1						25	4	21
SJ 01983	29N	09W	02	1						25	3	22
SJ 02346	29N	09W	02	1						25	4	21
SJ 03138	29N	09W	02	1	1	1				11	5	6
SJ 03044	29N	09W	02	1	1	2				10		
SJ 03396	29N	09W	02	1	1	2				10	4	6
SJ 02677	29N	09W	02	1	1	3				21	7	14
SJ 02492	29N	09W	02	1	1	3				13	5	8
SJ 02478	29N	09W	02	1	1	3				16	8	8
SJ 02096	29N	09W	02	1	1	4				27	11	16
SJ 01067	29N	09W	02	1	1	4				25	10	15
SJ 01066	29N	09W	02	1	1	4				25	10	15
SJ 01183	29N	09W	02	1	1	4				24	11	13
SJ 03632	29N	09W	02	1	2	2				27	7	20
SJ 01232	29N	09W	02	1	3					25	9	16
SJ 03080	29N	09W	02	1	3					35		
SJ 01210	29N	09W	02	1	3	1				26	10	16
SJ 01460	29N	09W	02	1	3	1				19	8	11
SJ 01430	29N	09W	02	1	3	1				24	11	13
SJ 01203	29N	09W	02	1	3	1				25	12	13
SJ 01392	29N	09W	02	1	3	2				25	11	14
SJ 03003	29N	09W	02	1	3	2				19	6	13
SJ 01867	29N	09W	02	1	3	2				25	71	-46
SJ 01579	29N	09W	02	1	3	2				25	12	13
SJ 03253	29N	09W	02	1	3	2				16	9	7
SJ 02600	29N	09W	02	1	4	3				18	8	10
SJ 03687	29N	09W	02	1	4	3				18	10	8
SJ 03687 POD1	29N	09W	02	1	4	3				18	10	8
SJ 03127	29N	09W	02	2	1	2				17	10	7
SJ 02376	29N	09W	03	1	2	4				13	10	3
SJ 02369	29N	09W	03	1	2	4				23		

<u>SJ 02369 CLW</u>	29N 09W 03	1 2 4	13	10	3
<u>SJ 02103</u>	29N 09W 03	1 3	21	4	17
<u>SJ 01494</u>	29N 09W 03	2 2	12	5	7
<u>SJ 03300</u>	29N 09W 03	2 2 2	21	4	17
<u>SJ 03362 POD2</u>	29N 09W 03	2 2 4	21	6	15
<u>SJ 03362</u>	29N 09W 03	2 2 4	38	12	26
<u>SJ 02567</u>	29N 09W 03	2 4 1	14	2	12
<u>SJ 03200</u>	29N 09W 03	3 1 1	28	13	15
<u>SJ 02946</u>	29N 09W 03	4 2 1	95	40	55
<u>SJ 03491</u>	29N 09W 04	1 1 3	70		
<u>SJ 03490</u>	29N 09W 04	1 1 3	42	20	22
<u>SJ 03566</u>	29N 09W 04	1 3 4	30		
<u>SJ 03531</u>	29N 09W 04	1 4 1	30		
<u>SJ 03530</u>	29N 09W 04	1 4 1	30		
<u>SJ 03466</u>	29N 09W 04	2 1 3	40		
<u>SJ 02554</u>	29N 09W 04	2 1 4	13	5	8
<u>SJ 03118</u>	29N 09W 05	2 2 3	250		
<u>SJ 03599</u>	29N 09W 05	4 1 1	42	20	22
<u>SJ 03092</u>	29N 09W 05	4 1 1	40	16	24
<u>SJ 03182</u>	29N 09W 05	4 1 1	42	18	24
<u>SJ 00584</u>	29N 09W 06	3 4	143	40	103
<u>SJ 00785</u>	29N 09W 07	3 4 2	60		
<u>SJ 03389</u>	29N 09W 07	4 4 2	20		
<u>SJ 03536</u>	29N 09W 07	4 4 2	19	6	13
<u>SJ 01176</u>	29N 09W 08	1 1	150	70	80
<u>SJ 02822</u>	29N 09W 08	1 1 3	100		
<u>SJ 00436</u>	29N 09W 08	1 3	150	100	50
<u>SJ 03534</u>	29N 09W 08	3 1 3	41	24	17
<u>SJ 02279</u>	29N 09W 09	1 1 4	30	6	24
<u>SJ 00102</u>	29N 09W 09	1 2 1	20	5	15
<u>SJ 02883</u>	29N 09W 16	2 3 3	123	87	36
<u>SJ 03185</u>	29N 09W 16	3 4 4	220	100	120
<u>SJ 03430</u>	29N 09W 18	2 2 1	21	1	20
<u>SJ 03428</u>	29N 09W 18	2 2 4	21	5	16
<u>SJ 00099</u>	29N 09W 18	2 4	16	4	12
<u>SJ 00097</u>	29N 09W 18	2 4	16	4	12
<u>SJ 00101</u>	29N 09W 18	2 4	16	4	12
<u>SJ 00098</u>	29N 09W 18	2 4	16	4	12
<u>SJ 00100</u>	29N 09W 18	4 1	16	4	12
<u>SJ 00096</u>	29N 09W 18	4 2	16	4	12
<u>SJ 00095</u>	29N 09W 18	4 2	16	4	12
<u>SJ 02910</u>	29N 09W 18	4 2 1	20		
<u>SJ 00094</u>	29N 09W 18	4 4 2	15		
<u>SJ 00093</u>	29N 09W 18	4 4 4	155		

Record Count: 76

New Mexico Office of the State Engineer  
POD Reports and Downloads

Township: 28N Range: 09W Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

iWATERS Menu

Help

WATER COLUMN REPORT 08/21/2008

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

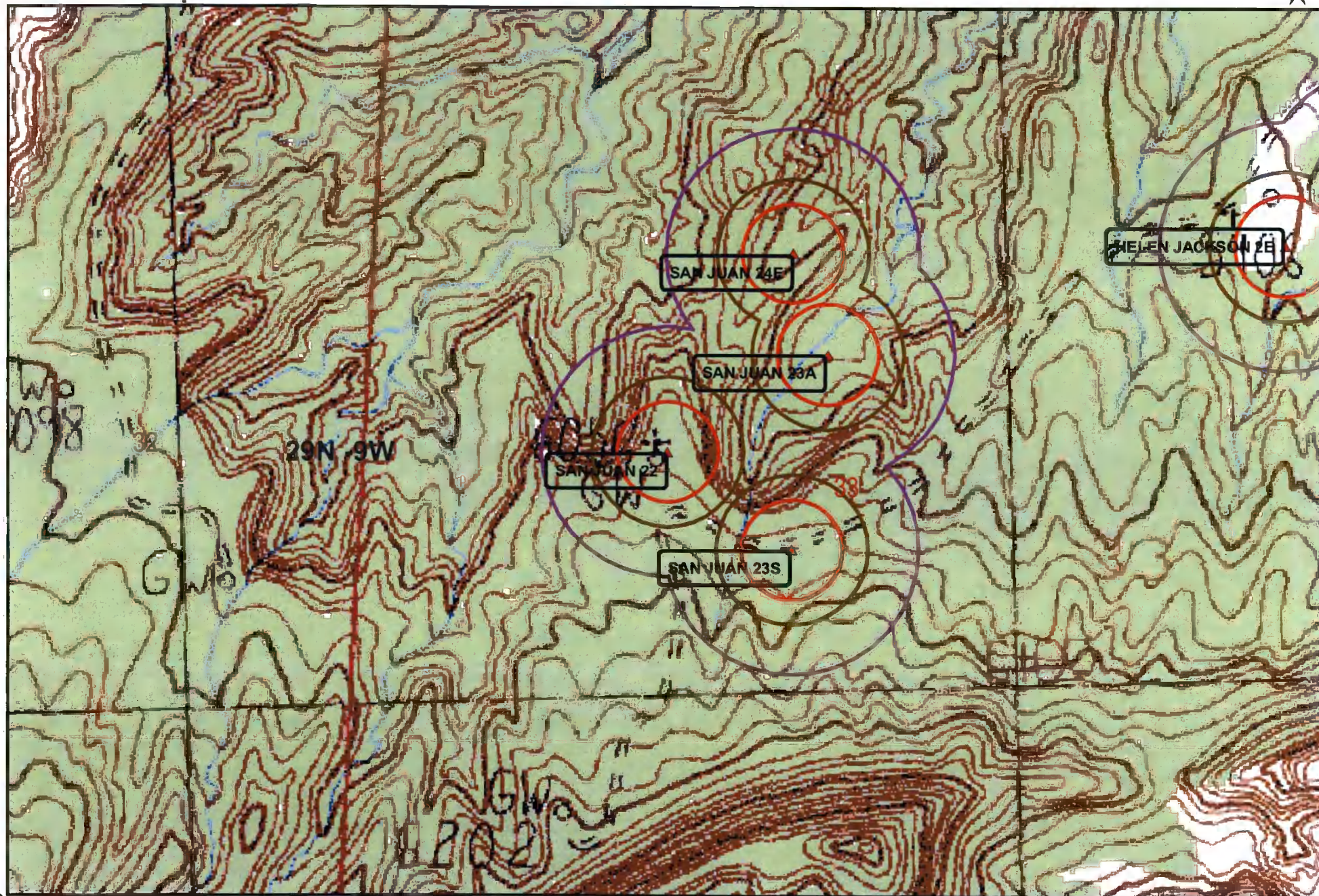
POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in Column
SJ 03746 POD1	28N	09W	20	1	2	3				190	40	150
SJ 00018	28N	09W	20	3	1	4				135	71	64
SJ 02800	28N	09W	24	4	2	3				200		

Record Count: 3

ConocoPhillips

USGS TOPO MAP

SAN JUAN 22



Wetlands data aquired from U.S. Fish  
and Wildlife  
<http://wetlandswms.er.usgs.gov>

**Ground Water**

⊕ iWaters  
+ COP

**Buffers**

200ft 500ft  
300ft Wetlands

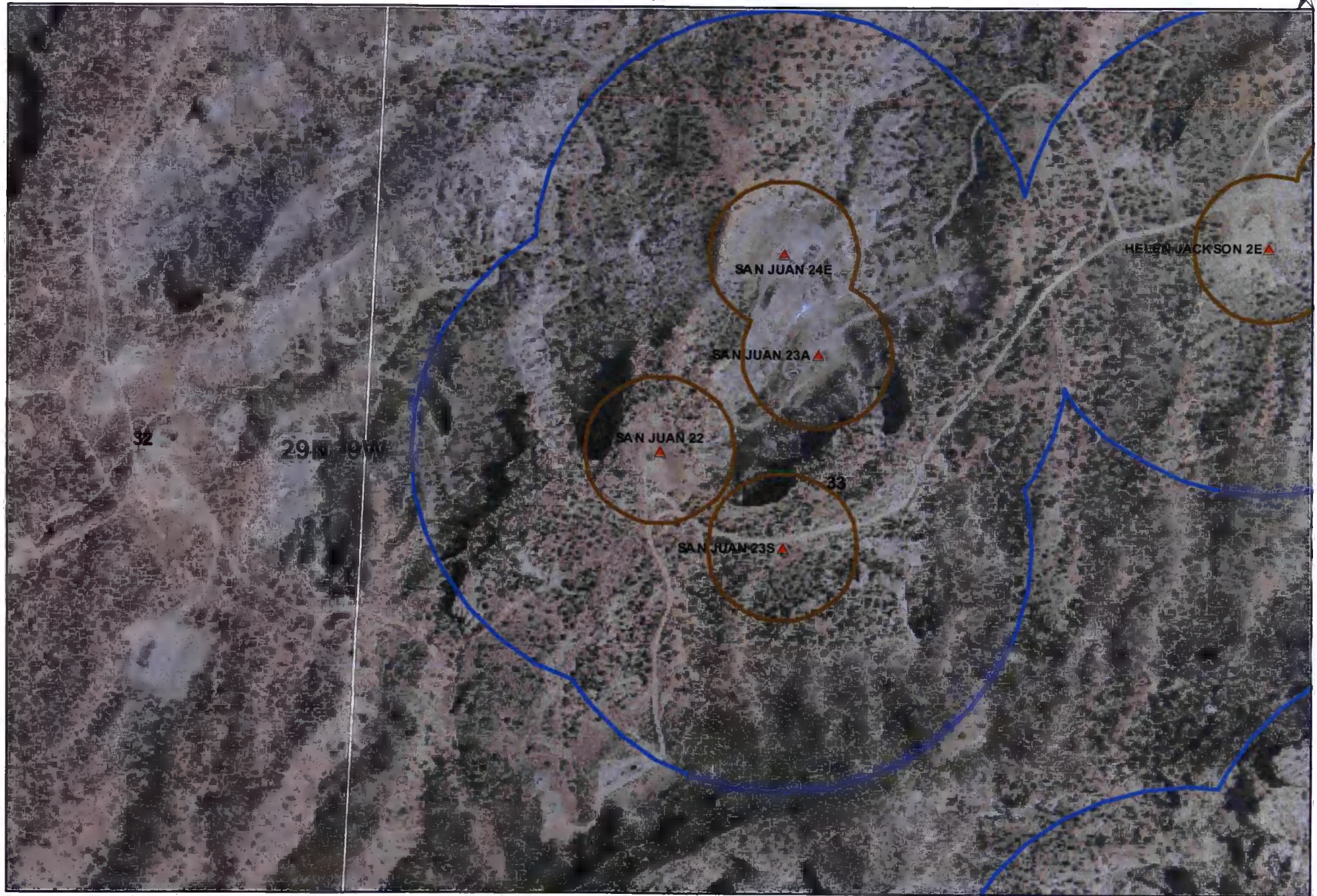
0 500 1,000  
Feet  
1:6,000

NAD\_1983\_StatePlane\_  
NMWest\_FIPS\_3003

8/08

ConocoPhillips

# AERIAL MAP SAN JUAN 22



Data Source  
Aerial flown locally Sedgewick in 2005.

1000FT

300FT

0 500 1,000 Feet

1:6,000

NAD\_1983\_SP\_  
NM West\_FIPS\_3003  
8/08

# Mines, Mills and Quarries Web Map

SAN JUAN 22

Unit Letter: E, Section: 33, Town: 029N, Range: 009W

## Mines, Mills & Quarries Commodity Groups

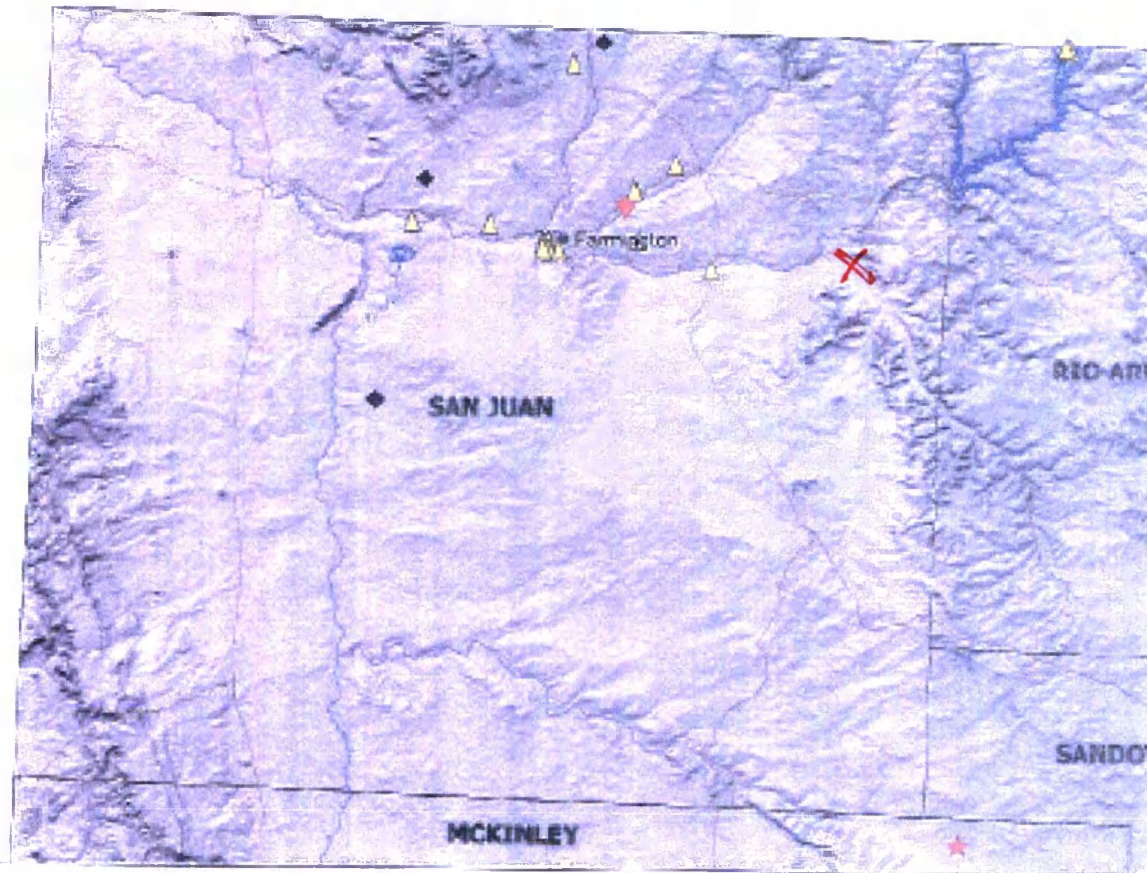
-  Aggregate & Stone Mines
-  Coal Mines
-  Industrial Minerals Mines
-  Industrial Minerals Mills
-  Metal Mines and Mill Concentrate
-  Potash Mines & Refineries
-  Smelters & Refinery Ops.
-  Uranium Mines
-  Uranium Mills

## Population

-  Cities - major

## Transportation

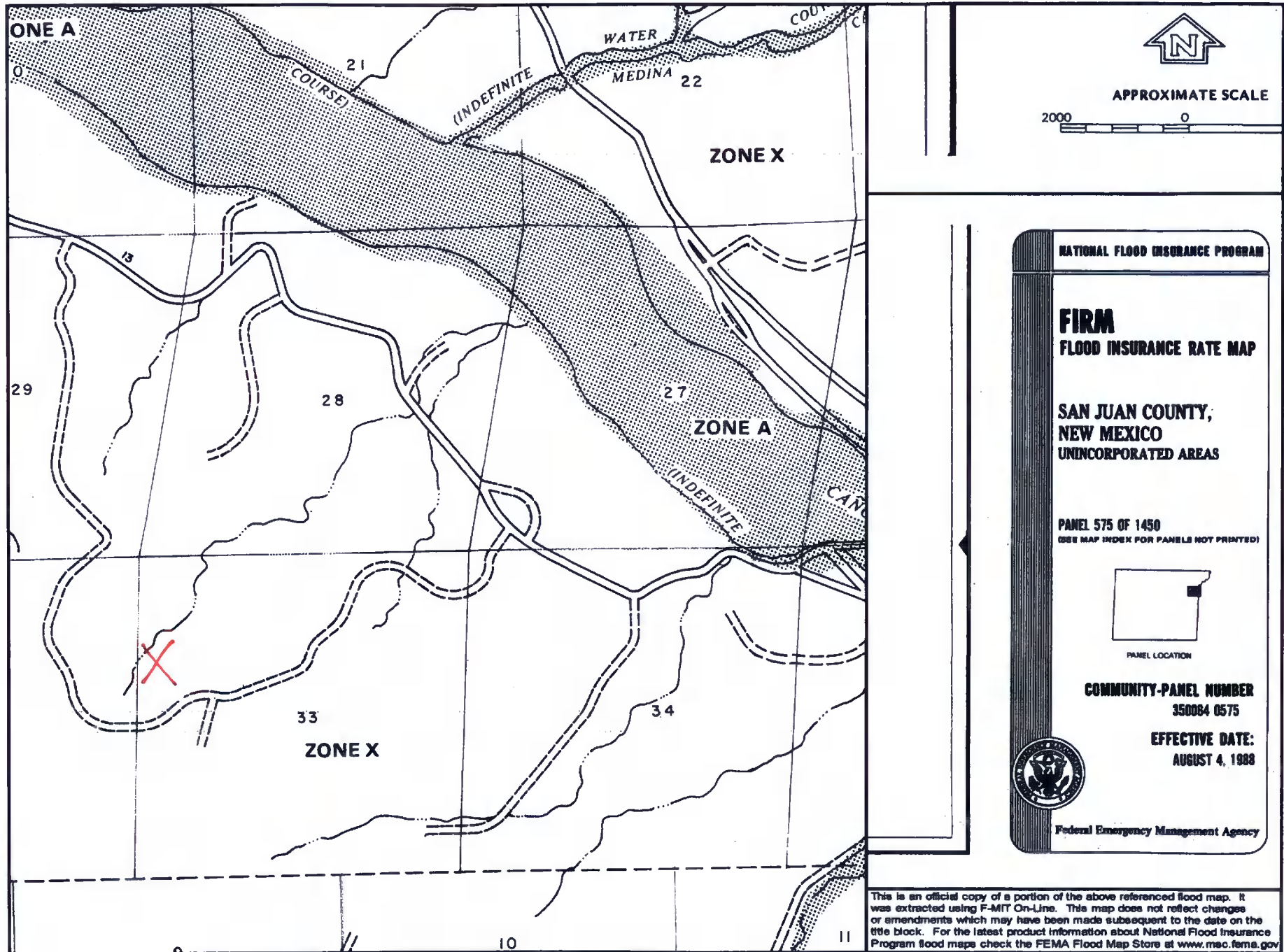
-  Railways
-  Interstate Highways
-  Major Roads



SCALE 1 : 1,180,383



SAN JUAN 22



## SAN JUAN 22

### Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'SAN JUAN 22', which is located at 36.68442 degree, North latitude and 107.79126 degree, West longitude. This location is located on the Blanco 7.5' USGS topographic quadrangle. This location is in section 33 of Township 29 North Range 9 West of the Public Land Survey System (New Mexico Principal Meridian). This location is located in San Juan County, New Mexico. The nearest town is Blanco, located 3.4 miles to the northwest. The nearest large town (population greater than 10,000) is Farmington, located 23.2 miles to the west (National Atlas). The nearest highway is US Highway 64, located 2.9 miles to the north. The location is on BLM land and is 1,295 feet from the edge of the parcel as notated in the BLM land status layer updated January 2008. This location is in the Blanco Canyon, New Mexico, Sub-basin. This location is located 1810 meters or 5936 feet above sea level and receives 11 inches of rain each year. The vegetation at this location is classified as Colorado Plateau Mixed Bedrock Canyon and Tableland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 281 feet. This estimation is based on the data published on the New Mexico Engineer's iWaters Database website and water depth data from ConocoPhillips' Cathodic wells. Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. The nearest stream is 139 feet to the east and is classified by the USGS as an intermittent stream. The nearest perennial stream is 4,474 feet to the northeast. The nearest water body is 4,465 feet to the northeast. It is classified by the USGS as an intermittent lake and is 0.2 acres in size. The nearest spring is 14,467 feet to the east. All stream, river, water body and spring information was determined as per the USGS Hydrographic Dataset (High Resolution), downloaded 3/2008. The nearest water well is 3,935 feet to the southeast. The nearest wetland is a 0.2 acre other located 6,734 feet to the northwest. The slope at this location is 12 degree, to the northeast as calculated from USGS 30M National Elevation Dataset. This information is also discerned from the aerial and topographic map included. The surface geology at this location is NACIMIENTO FORMATION--Shale and sandstone with a Shale dominated formations of all ages substrate. The soil at this location is 'Badland-Rock outcrop-Persayo complex, extremely steep' and is not hydric with severe erosion potential as taken from the NRCS SSURGO map unit, downloaded January 2008. The nearest underground mine is 20.0 miles to the north as indicated on the Mines, Mills and Quarries Map of New Mexico provided.

### Regional Geological context:

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it conformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone et al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones.

Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3,500 feet.

**Hydraulic Properties:**

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conducive to runoff than retention of precipitation.

**References:**

- Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper 552, 101 p.
- Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207.
- Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.
- Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.
- Levings, G.W., Craig, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.
- Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

**Burlington Resources Oil & Gas Company, LP  
San Juan Basin  
Below Grade Tank Design and Construction**

In accordance with NMAC 19.15.17 the following information describes the design and construction of below grade tanks on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

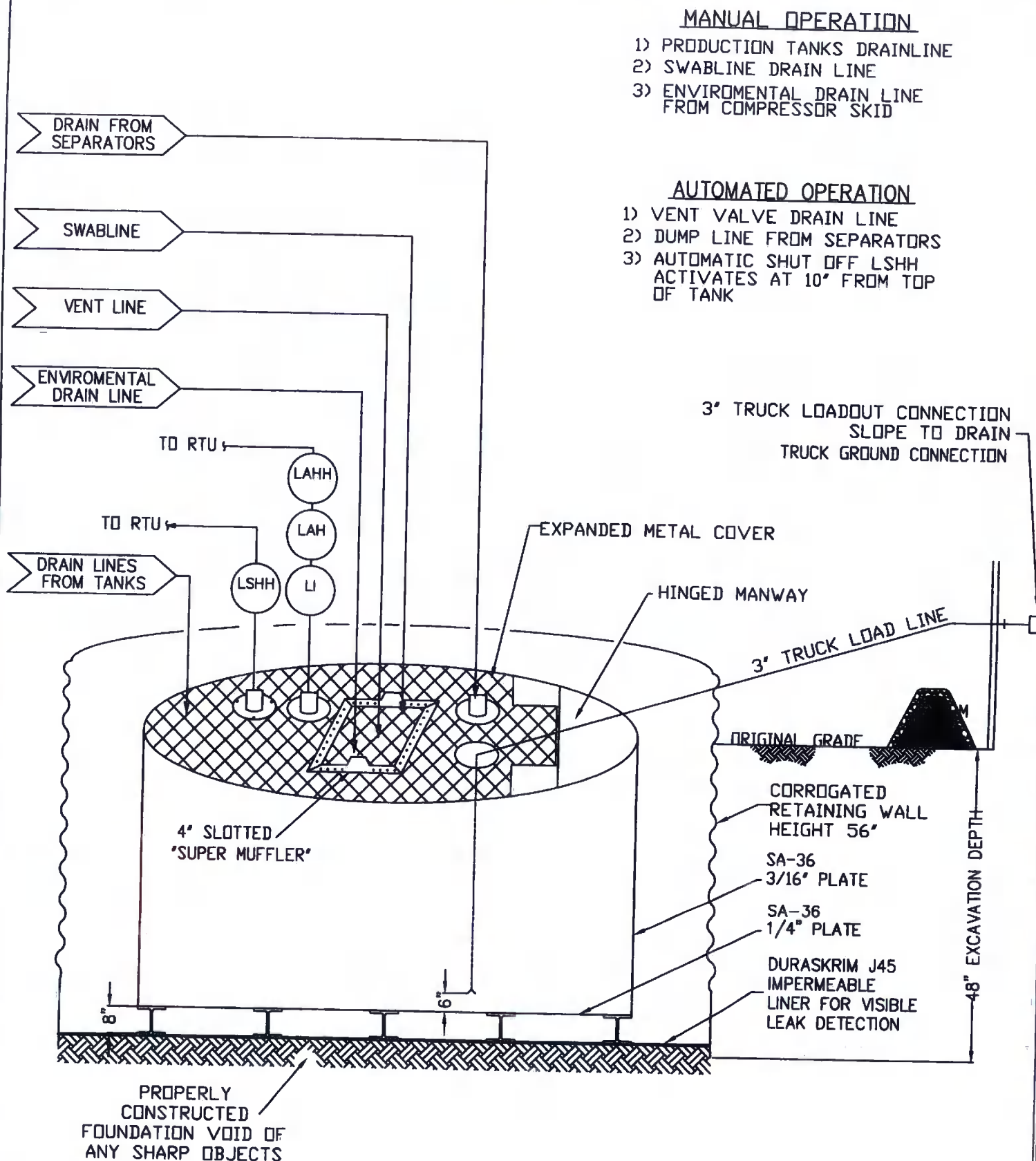
**General Plan:**

1. BR will design and construct a properly sized and approved BGT which will contain liquids and should prevent contamination of fresh water to protect the public health and environment.
2. BR signage will comply with 19.15.3.103 NMAC when BR is the operator. If BR is not the operator it will comply with 19.15.17.11 NMAC. BR includes Emergency Contact information on all signage.
3. BR has approval to use alternative fencing that provides better protection. BR constructs fencing around the BGT using 4 foot hog wire fencing topped with two strands of barbed wire, or with a pipe top rail. A six foot chain link fence topped with three strands of barbed wire will be use if the well location is within 1000 feet of permanent residence, school, hospital, institution or church. BR ensures that all gates associated with the fence are closed and locked when responsible personnel are not onsite.
4. BR will construct a screened, expanded metal covering, on the top of the BGT.
5. BR shall ensure that a below-grade tank is constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight as shown on design drawing and specification sheet.
6. The BR below-grade tank system shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom as shown on design drawing.
7. BR shall operate and install the below-grade tank to prevent the collection of surface water run-on. BR has built in shut off devices that do not allow a below-grade tank to overflow. BR constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the below grade tank as shown on the design plan.
8. BR will construct and use a below-grade tank that does not have double walls. The below-grade tank's side walls will be open for visual inspection for leaks, the below-grade tank's bottom is elevated a minimum of six inches above the underlying ground surface and the below-grade tank is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.

11/5/2008

9. BR has equipped the below-grade tanks with the ability to detect high level in the tank and provide alarm notification and shutdown process streams into the tank. Once high level is detected RTU logic closes the inlet separator sales valve and does not permit vent valve to open. This shutdown of the sales valve and gagging of the vent valves prevents any hydrocarbon process streams from entering the pit tank once a high level is detected. Furthermore, an electronic page is sent to the BR MSO for that well site and to the designated contract "Water-Hauling" Company indicating a high level and that action must be taken to address this alarm. The environmental drain line from BR's compressor skid under normal operating conditions is in the open position. The environmental drain line is in place to capture any collected rain water or spilled lubricants from our compressor skids. The swab drain line is a manually operated drain and by normal operating procedures is in the closed position. The tank drain line is also a manually operated drain and during normal operations it is in the closed position.
10. The geomembrane liner consists of a 45-mil flexible LLDPE material manufactured by Raven Industries as J45BB. This product is a four layer reinforced laminated containing no adhesives. The outer layers consist of a high strength polyethylene film manufactured using virgin grade resins and stabilizers for UV resistance in exposed applications. The J45BB is reinforced with 1300 denier (minimum) tri-directional scrim reinforcement. It exceeds ASTM D3083 standard by 10%. J45BB has a warranty for 20 years from Raven Industries and is attached. It is typically used in Brine Pond, Oilfield Pit liner and other industrial applications. The manufacture specific sheet is attached and the design attached displays the proper installation of the liner.
11. The general specification for design and construction are attached in the BR document.

11/5/2008



# ConocoPhillips

San Juan Business Unit

**PRODUCED WATER PIT TANK**  
OPEN TOP GRAVITY FLOW TANK  
INTERNALLY COATED WITH  
12-14 MILS AMERON AMERCOAT 385

**DURA-SKRIM®****J30, J36 & J45**

PROPERTIES	TEST METHOD	J30BB		J36BB		J45BB	
		Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages
Appearance		Black/Black		Black/Black		Black/Black	
Thickness	ASTM D 5199	27 mil	30 mil	32 mil	36 mil	40 mil	45 mil
Weight Lbs Per MSF (oz/yd <sup>2</sup> )	ASTM D 5261	126 lbs (18.14)	140 lbs (20.16)	151 lbs (21.74)	168 lbs (24.19)	189 lbs (27.21)	210 lbs (30.24)
Construction		**Extrusion laminated with encapsulated tri-directional scrim reinforcement					
Ply Adhesion	ASTM D 413	16 lbs	20 lbs	19 lbs	24 lbs	25 lbs	31 lbs
1 <sup>st</sup> Tensile Strength	ASTM D 7003	88 lbf MD 63 lbf DD	110 lbf MD 79 lbf DD	90 lbf MD 70 lbf DD	113 lbf MD 87 lbf DD	110 lbf MD 84 lbf DD	138 lbf MD 105 lbf DD
1 <sup>st</sup> Tensile Elongation @ Break % (Film Break)	ASTM D 7003	550 MD 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD 750 DD
1 <sup>st</sup> Tensile Elongation @ Peak % (Scrim Break)	ASTM D 7003	20 MD 20 DD	33 MD 33 DD	20 MD 20 DD	30 MD 31DD	20 MD 20 DD	36 MD 36 DD
Tongue Tear Strength	ASTM D 5884	75 lbf MD 75 lbf DD	97 lbf MD 90 lbf DD	75 lbf MD 75 lbf DD	104 lbf MD 92 lbf DD	100 lbf MD 100 lbf DD	117 lbf MD 118 lbf DD
Grab Tensile	ASTM D 7004	180 lbf MD 180 lbf DD	218 lbf MD 210 lbf DD	180 lbf MD 180 lbf DD	222 lbf MD 223 lbf DD	220 lbf MD 220 lbf DD	257 lbf MD 258 lbf DD
Trapezoid Tear	ASTM D 4533	120 lbf MD 120 lbf DD	146 lbf MD 141 lbf DD	130 lbf MD 130 lbf DD	189 lbf MD 172 lbf DD	160 lbf MD 160 lbf DD	193 lbf MD 191 lbf DD
* Dimensional Stability	ASTM D 1204	<1	<0.5	<1	<0.5	<1	<0.5
Puncture Resistance	ASTM D 4833	50 lbf	64 lbf	65 lbf	83 lbf	80 lbf	99 lbf
Maximum Use Temperature		180° F	180° F	180° F	180° F	180° F	180° F
Minimum Use Temperature		-70° F	-70° F	-70° F	-70° F	-70° F	-70° F

MD = Machine Direction  
DD = Diagonal Directions



Note: Minimum Roll Averages are set to take into account product variability in addition to testing variability between laboratories.

\*Dimensional Stability Maximum Value

\*\*DURA-SKRIM J30BB, J36BB & J45BB are a four layer reinforced laminate containing no adhesives. The outer layers consist of a high strength polyethylene film manufactured using virgin grade resins and stabilizers for UV resistance in exposed applications. DURA-SKRIM J30BB, J36BB & J45BB are reinforced with a 1300 denier (minimum) tri-directional scrim reinforcement.

Note: RAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO. no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.

**PLANT LOCATION**

Sioux Falls, South Dakota

**SALES OFFICE**

P.O. Box 5107  
Sioux Falls, SD 57117-5107  
(605) 335-0174  
(605) 331-0333 FAX  
**800-635-3456**

**RAVEN**  
INDUSTRIES

08/06

## RAVEN INDUSTRIES INC. EXPOSED GEOMEMBRANE LIMITED WARRANTY

Raven Industries Inc. warrants Dura-Skrim J30BB, J36BB, and J45BB to be free from manufacturing defects and to be able to withstand normal exposure to sunlight for a period of 20 years from the date of sale for normal use in approved applications in the U.S and Canada, excluding Hawaii. This warranty is effective for products sold and shipped from January 1, 2008 to December 31, 2008. These dates will be updated prior to December 31, 2008.

This Limited Warranty does not include damages or defects in the Raven geomembrane resulting from acts of God, casualty or catastrophe including but not limited to: earthquakes, floods, piercing hail, or tornadoes. The term "normal use" as used herein does not include, among other things improper handling during transportation, unloading, storage or installation, the exposure of Raven geomembranes to harmful chemicals, atypical atmospheric conditions, abuse of Raven geomembranes by machinery, equipment or people; improper site preparation or covering materials, excessive pressures or stresses from any source or improper application or installation. Raven geomembrane material warranty is intended for commercial use only and is not in effect for the consumer as defined in the Magnuson Moss Warranty or any similar federal, state, or local statutes. The parties expressly agree that the sale hereunder is for commercial or industrial use only.

Should defects or premature loss of use within the scope of the above Limited Warranty occur, Raven Industries Inc. will, at its option, repair or replace the Raven geomembrane on a pro-rata basis at the then current price in such manner as to charge the Purchaser/User only for that portion of the warranted life which has elapsed since purchase of the material. Raven Industries Inc. will have the right to inspect and determine the cause of any alleged defect in the Raven geomembrane and to take appropriate steps to repair or replace the Raven geomembrane if a defect exists which is covered under this warranty. This Limited Warranty extends only to Raven's geomembrane, and does not extend to the installation service of third parties nor does it extend to materials furnished or installed by others in connection with the intended use of the Raven geomembranes.

Any claim for any alleged breach of this warranty must be made in writing, by certified mail, to the General Manager of Engineered Films Division of Raven Industries Inc. within ten (10) days of becoming aware of the alleged defect. Should the required notice not be given, the defect and all warranties are waived by the Purchaser, and Purchaser shall not have any rights under this warranty. Raven Industries Inc. shall not be obligated to perform repairs or replacements under this warranty unless and until the area to be repaired or replaced is clean, dry, and unencumbered. This includes, but is not limited to, the area made available for repair and/or replacement of Raven geomembrane to be free from all water, dirt, sludge, residuals and liquids of any kind. If after inspection it is determined that there is no claim under this Limited Warranty, Purchaser shall reimburse Raven Industries Inc. for its costs associated with the site inspection.

In the event the exclusive remedy provided herein fails in its essential purpose, and in that event only, the Purchaser shall be entitled to a return of the purchase price for so much of the material as Raven Industries Inc. determines to have violated the warranty provided herein. Raven Industries Inc. shall not be liable for direct, indirect, special, consequential or incidental damages resulting from a breach of this warranty including, but not limited to, damages for loss of production, lost profits, personal injury or property damage. Raven Industries Inc. shall not be obligated to reimburse Purchaser for any repairs, replacement, modifications or alterations made by Purchaser unless Raven Industries Inc. specifically authorized, in writing, said repairs, replacements, modifications or alteration in advance of them having been made. Raven Industry's liability under this warranty shall in no event exceed the replacement cost of the material sold to the Purchaser for the particular installation in which it failed.

Raven Industries Inc. neither assumes nor authorizes any person other than the undersigned of Raven Industries Inc. to assume for it any other or additional liability in connection with the Raven geomembrane made on the basis of the Limited Warranty. The Limited Warranty on the Raven geomembrane herein is given in lieu of all other possible material warranties, either expressed or implied, and by accepting delivery of the material; Purchaser waives all other possible warranties, except those specifically given. This Limited Warranty may only be modified by written document mutually executed by Owner and Raven Industries Inc.

Limited Warranty is extended to the purchaser/owner and is non-transferable and non-assignable; i.e., there are no third-party beneficiaries to this warranty.

Purchaser acknowledges by acceptance that the Limited Warranty given herein is accepted in preference to any and other possible materials warranties.

THIS LIMITED WARRANTY SHALL BE GOVERNED BY SOUTH DAKOTA LAW AND VENUE FOR ALL LEGAL PROCEEDINGS IN CONNECTION WITH THIS LIMITED WARRANTY SHALL BE IN MINNEHAHA COUNTY, SOUTH DAKOTA. RAVEN INDUSTRIES INC. MAKES NO WARRANTY OF ANY KIND OTHER THAN THAT GIVEN ABOVE AND HEREBY DISCLAIMS ALL WARRANTIES, BOTH EXPRESSED OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS IS THE ONLY WARRANTY THAT APPLIES TO THE MATERIALS REFERRED TO HEREIN AND RAVEN INDUSTRIES INC. DISCLAIMS ANY LIABILITY FOR ANY WARRANTIES GIVEN BY ANY OTHER PERSON OR ENTITY, EITHER WRITTEN OR ORAL.

RAVEN INDUSTRIES' WARRANTY BECOMES AN OBLIGATION OF RAVEN INDUSTRIES INC. TO PERFORM UNDER THE WARRANTY ONLY UPON RECEIPT OF FINAL PAYMENT AND EXECUTION BY A DULY AUTHORIZED OFFICER OF RAVEN INDUSTRIES INC.

**Burlington Resources Oil & Gas Company, LP  
San Juan Basin  
Below Grade Tank Maintenance and Operating Plan ..**

In accordance with Rule 19.15.17 the following information describes the operation and maintenance of Below Grade Tank (BGT) on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all BGT. A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

1. BR will operate and maintain a BGT to contain liquids and solids and maintain the integrity of the liner, liner system and secondary containment system to prevent contamination of fresh water and protect public health and environment. BR will accomplish this by performing an inspection on a monthly basis, installing cathodic protection, and automatic overflow shutoff devices as seen on the design plan.
2. BR will not discharge into or store any hazardous waste in the BGT.
3. BR shall operate and install the below-grade tank to prevent the collection of surface water run-on. BR has built in shut off devices that do not allow a below-grade tank to overflow. BR constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the below grade tank as shown on the design plan.
4. As per 19.17.15.12 Subsection D, Paragraph 3, BR will inspect the below-grade tank at least monthly reviewing several items which include 1) containment berms adequate and no oil present, 2) tanks had no visible leaks or sign of corrosion, 3) tank valves, flanges, and hatches had no visible leaks and 4) no evidence of significant spillage of produced liquids. In addition, BR's multi-skilled operators (MSOs) are required to visit each well location once per week. If detected on either inspection, BR shall remove any visible or measurable layer of oil from the fluid surface of a below-grade tank in an effort to prevent significant accumulation of oil overtime. The written record of the monthly inspections will include the items listed above and will be maintained for five years.
5. BR shall require and maintain a 10" adequate freeboard to prevent overtopping of the below-grade tank.
6. If the below grade tank develops a leak, or if any penetration of the pit liner or below grade tank, occurs below the liquid's surface, then BR shall remove all liquid above the damage or leak line within 48 hours. BR shall notify the appropriate district office. BR shall repair or replace the pit liner or below grade tank, within 48 hours of discovery. If the below grade tank or pit liner does not demonstrate integrity, BR shall promptly remove and install a below grade tank or pit liner that complies with Subsection I of 19.15.17.11 NMAC. BR shall notify the appropriate district office of a discovery of leaks less than 25 barrels as required pursuant to Subsection B of 19.15.3.116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19.15.3.116 NMAC shall be reported to the division's Environmental Bureau Chief.

11/5/2008

**Burlington Resources Oil & Gas Company, LP  
San Juan Basin  
Below Grade Tank Closure Plan**

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of Below Grade Tanks (BGTs) on Burlington Resources Oil & Gas Company, LP locations hereinafter known as BR locations. This is BR's standard procedure for all BGTs. A separate plan will be submitted for any BGT which does not conform to this plan.

General Requirements:

1. BR shall close a below-grade tank within the time periods provided in Subsection A of 19.15.17.13 NMAC. This will include a) below-grade tanks that do 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, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) permitted below-grade tanks within 60 days of cessation of the below-grade tank's operation, or c) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, BR will file the C144 Closure Report as required.
2. BR shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011). The liner after being cleaned well (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be disposed of at the San Juan County Regional Landfill located on CR 3100.
3. BR will receive prior approval to remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. Documentation of how the below-grade tank was disposed of or recycled will be provided in the closure report.
4. If there is any on-site equipment associated with a below-grade tank, then BR shall remove the equipment, unless the equipment is required for some other purpose.
5. BR shall test the soils beneath the below-grade tank to determine whether a release has occurred. BR shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. BR shall notify the division of its results on form C-141.
6. If BR or the division determines that a release has occurred, then BR shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

11/5/2008

7. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then BR shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.
8. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email or verbally. The notification of closure will include the following:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
9. The surface owner shall be notified of BR's closing of the below-grade tank prior to closure as per the approved closure plan via certified mail, return receipt requested.
10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
11. BR shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM stipulated seed mixes will used on federally jurisdicted lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. BR will repeat seeding or planting will be continued until successful vegetative growth occurs.
12. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
13. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
  - Soil Backfilling and Cover Installation
  - Re-vegetation application rates and seeding techniques
  - Photo documentation of the site reclamation
  - Confirmation Sampling Results
  - Proof of closure notice

11/5/2008



## New Mexico Site Characterization

## REFERENCE

## SITE INFORMATION

## COMMENTS

C-141
C-141
C-141
C-141
NMOCD O&G Map

Site Name:	San Juan 22
Coordinates:	36.68442, -107.79126
Incident Number:	NA
Land Owner:	Federal
Site Elevation (ft):	6,020

--

## DTW INFORMATION

Cross reference USGS Map, NMOCD Map, and NMOSE Database
---------------------------------------------------------

Closest Water Well/Soil Boring		2nd Closest Water Well/Soil Boring	
CLOSER		FALSE	
Name:	SJ-04058-POD1	Name:	SJ-03746-POD1
Distance from Site (ft):	8,850	Distance from Site (ft):	13,610
Direction from Site:	WSW	Direction from Site:	SW
Elevation:	5,850	Elevation:	5,750
DTW (ft):	127	DTW (ft):	40
Total Depth (ft):	380	Total Depth (ft):	190
Date of most recent water level measurement:	11/6/2013	Date of most recent water level measurement:	8/8/2006
Coordinates:	36.676933, -107.821138	Coordinates:	36.651928, -107.815302
170 feet lower in elevation than the Site		270 feet lower in elevation than the Site	
ESTIMATED DTW @ SITE:			
>100'			

## COMMENTS

--

## CLOSEST SIGNIFICANT WATER SOURCE

NMOCD O&G Map
---------------

Type:	Dry Wash
Distance (ft):	350
Direction:	East

--

## SITE RECEPTORS

C-141
NMOCD O&G Map
NMOCD O&G Map
OpenEnviroMap
NMOCD O&G Map
NMOCD O&G Map
OpenEnviroMap
National Wetlands Inventory
NMED Registered Mines Map
NMOCD O&G Map
NMOCD O&G Map
FEMA map
C-141

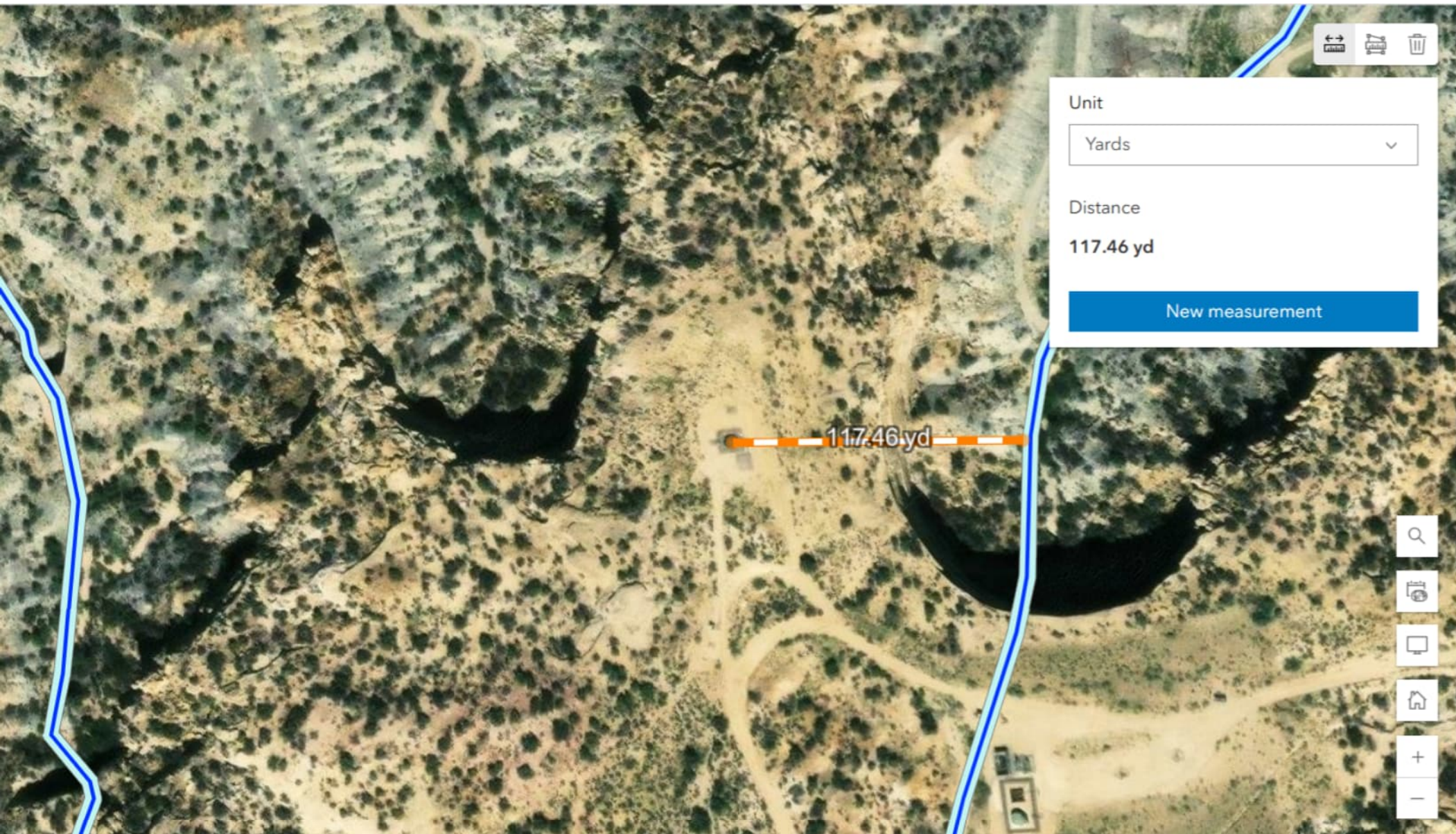
NO	Did this release impact groundwater or surface water?
NO	≤ 300 ft of a continuously flowing watercourse or any other significant watercourse?
NO	≤ 200 ft of any lakebed, sinkhole, or playa lake?
NO	≤ 300 ft of an occupied permanent residence, school, hospital, institution, or church?
NO	≤ 500 ft of a spring or a private water well used by < 5 houses for domestic or stock watering?
NO	≤ 1000 ft of any other fresh water well or spring?
NO	≤ Municipal boundaries or a defined municipal fresh water well field
NO	≤ 300 ft of a wetland?
NO	overlying a subsurface mine
NO	overlying unstable geology (HIGH KARST)?
None	karst potential
NO	in a 100-year floodplain?
NO	Did the release impact areas not on an exploration, development, production or storage site?

## Distance from Site (ft) / Comments

approximately 297 feet below site	
adjacent drainage 350ft to East	
> 5 miles	
> 2 miles	
> 2.7 miles	
> 2.7 miles	
> 2 miles	
350 ft E	
> 5 miles	
> 5 miles	
None	
> 1.4 milesN	
NA	

## NMOCD TABLE 1 CLOSURE CRITERIA

DRO+ GRO: 1,000 mg/kg    TPH: 2,500 mg/kg    Chlorides: 20,000 mg/kg



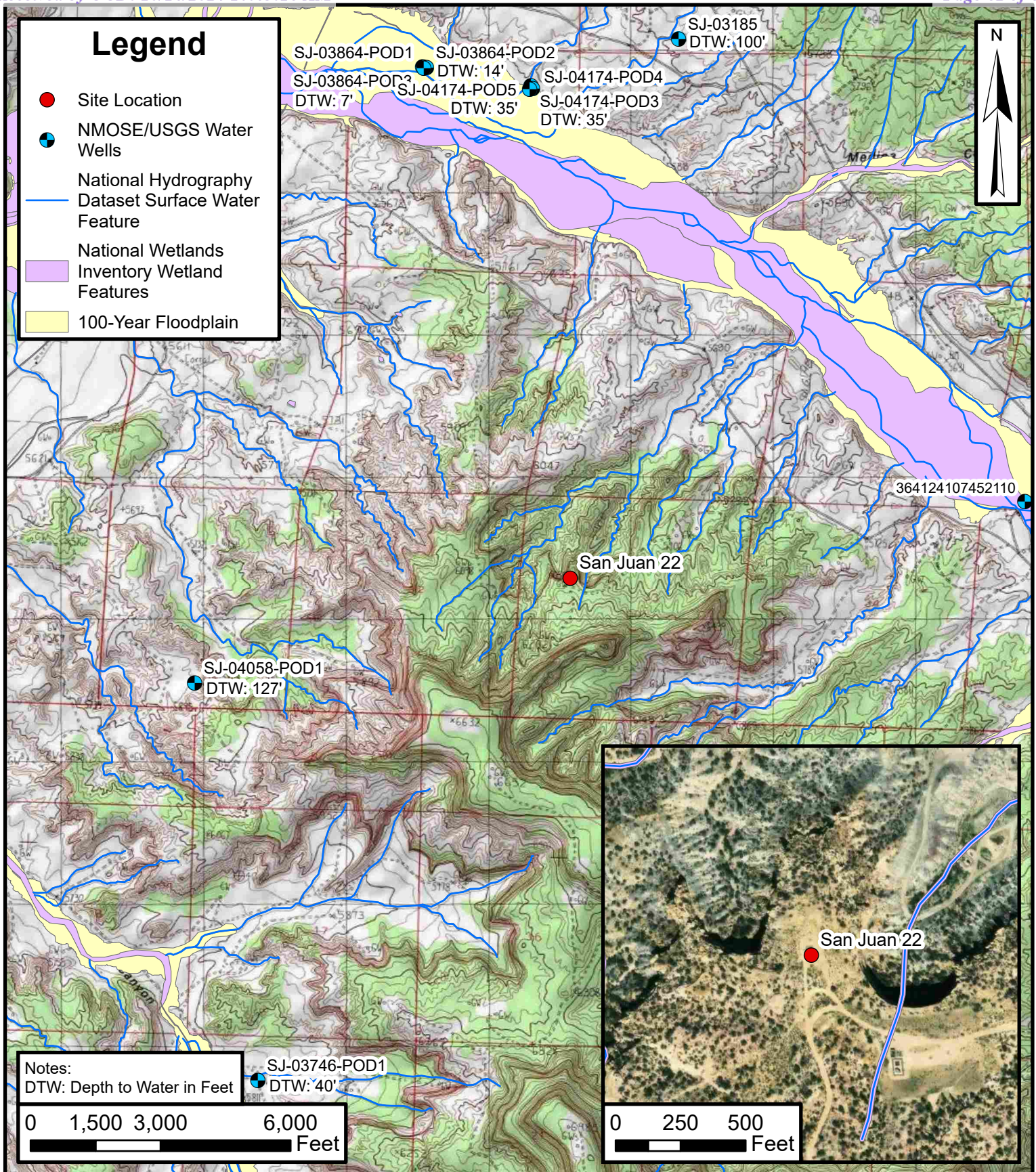
Unit

Yards

Distance

117.46 yd

New measurement



## Site Receptor Map

San Juan 22

Hilcorp Energy Company

36.68442, -107.79126

San Juan County, New Mexico

FIGURE

1



**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 392317

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 392317
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
joseph.kennedy	None	10/17/2024