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 June 6, 2013

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

Pit, Below-Grade Tank, or
13628 Proposed Alternative Method Permit or Closure Plan Application

OIL CONS. DIV DIST. 3
NOV 23 2015

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: WPX SJB Gathering, LLC OGRID #:
Address: 3500 One Williams Center, Suite 4400, Tulsa, OK 74172
Facility or well name: Chaco Trunk 4-2 CDP API Number: OCD Permit Number:
U/L or Qtr/Qtr D Section 12 Township 23N Range 7W County: Rio Arriba
Center of Proposed Design: Latitude N36.24482 Longitude W107.53471 NAD: ☐ 1927 ☒ 1983
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 ☐ Completion ☐ 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: 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: Double Wall, Double Bottom Steel
☒ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

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 As per BLM specifications

25

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.

Variances 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_2S, 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 ☐ Completion ☐ 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	☐ Yes ☐ No ☐ 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	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 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	☐ 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 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	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ 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

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): Deborah Watson Title: Environmental Specialist

Signature: Deborah Watson Date: November 16, 2015

e-mail address: deborah.watson@wpxenergy.com Telephone: 505-333-1880/ 505-386-9693

18.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: **Approval Date:** 12/15/15

Title: Environmental Spec. **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:**

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): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Hydrogeological Report
WPX SJB Gathering, LLC
Chaco Trunk 4-2 CDP
N36.24482, W107.53471
Regional Hydrological Context

Referenced Well Location:
The referenced well and BGT is located on Bureau of Land Management land within Farmington Field Office (FFO) jurisdiction in Rio Arriba County, New Mexico. This site is positioned in the northeastern portion of the San Juan Basin, an asymmetrical syncline that extends from northwestern New Mexico into southwestern Colorado (Carson National Forest FEIS, 2008). Elevation of the referenced location is approximately 7,078 feet MSL.

General Regional Groundwater Description:
As a portion of the San Juan Basin, the FFO region is underlain by sandstone aquifers of the Colorado Plateau. The primary aquifer of potential concern at this location is the Uinta-Animas Aquifer, composed primarily of Lower Tertiary rocks in the San Juan Basin. The aquifer consists of the San Jose Formation; the underlying Animas formation and its lateral equivalent, the Nacimiento formation; and the Ojo Alamo Sandstone. The thickness of the Uinta-Animas aquifer generally increases toward the central part of the basin. In this region, the maximum thickness of the aquifer is approximately 3500 feet (USGS, 2001). This aquifer contains fresh to moderately saline water.

Groundwater generally flows toward the San Juan River and its tributaries, where it becomes alluvial groundwater or is discharged to stream flow. Additional information regarding the hydrogeologic setting can be found in the provided references.

Site Specific Information:

Surface Hydrology:	The BGT is located on the broad, flat floor of Escrito Canyon with a gentle slope to the northwest.
1st Water Bearing Formation:	San Jose, Tertiary
Formation Thickness:	Approximately 1,900 ft.
Underlying Formation:	Nacimiento, Tertiary
Depth to Groundwater:	Depth to groundwater is estimated to be greater than 100 feet below the bottom of the BGT. A Ground Bed Drilling Log for NE Chaco Com168H/169H reports water at 85 feet below ground surface (bgs). The NE Chaco Com 168H/169H is located approximately 930 feet southwest of the location. The NE Chaco Com 168H/169H is located at an elevation 25 feet lower than the Chaco Trunk 4-2 CDP.

References:

Allen, Erin. Undated. Colorado Plateau Aquifers. http://academic.emporia.edu/schulmem/hydro/TERM%20PROJECTS/2007/Allen/Aquifer.html.

New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals. Database. 2010. Internet accessed January 2010.

New Mexico Office of the State Engineer. 2014. iWaters database. Internet accessed September 2014.

New Mexico WQCC. 2005. State of New Mexico Water Quality Act and the Water Control Commission Regulations.

United States Department of Agriculture, Forest Service. 2008. Final Environmental Impact Statement for Surface Management of Gas Leasing and Development. Jicarilla Ranger District, Carson National Forest, Rio Arriba County, New Mexico.

United States Department of the Interior. Bureau of Land Management. 2003. Final Farmington Resource Management Plan and Final Environmental Impact Statement. Farmington Field Office, Farmington, New Mexico.

United States Geological Survey. 2001. Ground Water Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C.

Siting Criteria Compliance Demonstrations
WPX SJB Gathering, LLC
Chaco Trunk 4-2 CDP
N36.24482, W107.53471

19.15.17.10. A.8 Siting Criteria – Below Grade Tanks

(a) *An operator shall not locate a Below Grade Tank within 100 feet of continuously flowing watercourse, significant water course, lakebed, sinkhole, wetland or playa lake.*

The BGT is not located within 100 feet of any continuously flowing water course, significant water course, lakebed, sinkhole, wetlands or playa lake as indicated on the attached topographic map.

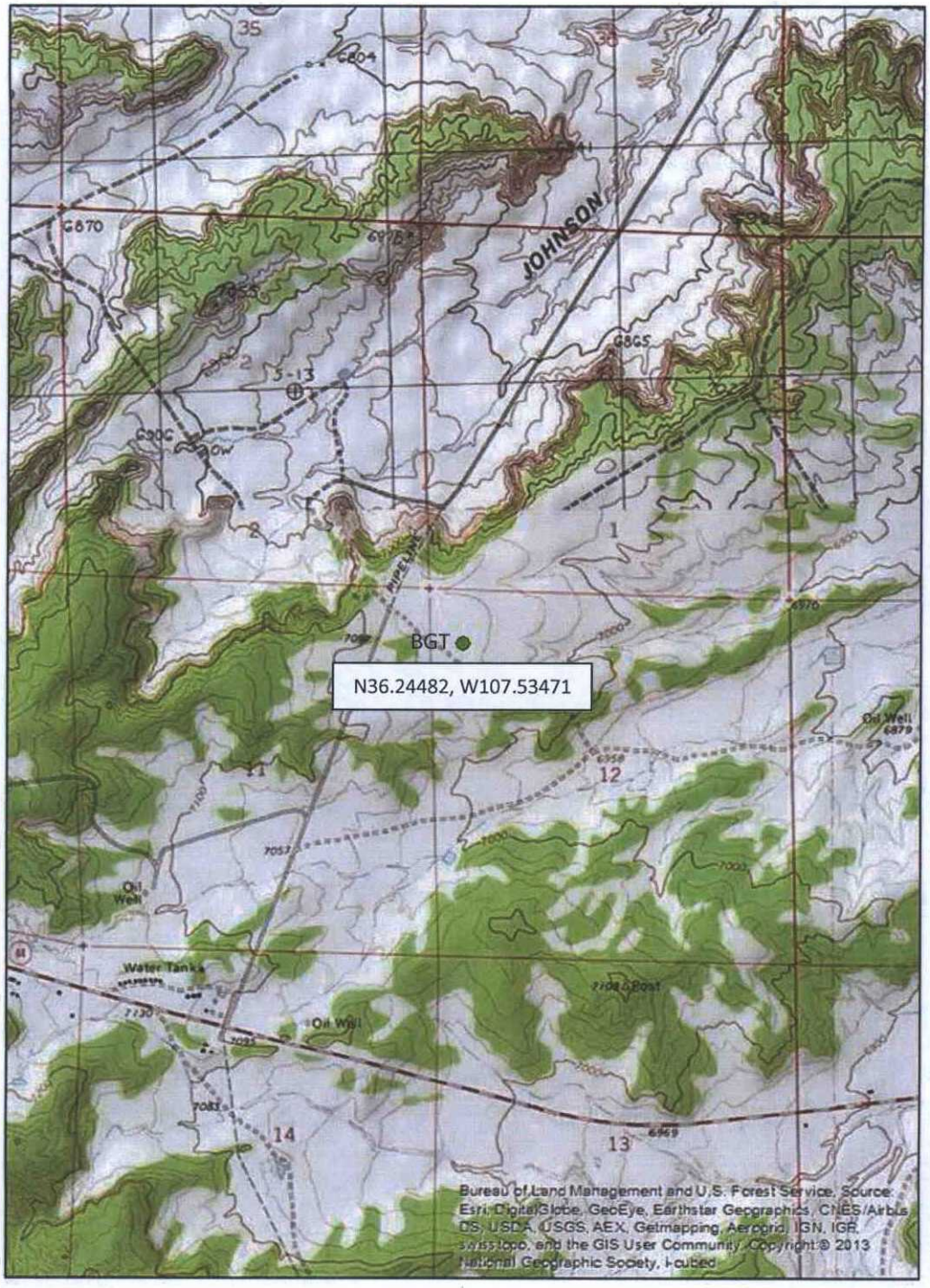
(b) *An operator shall not locate a Below Grade Tank within 200 feet of a spring or a fresh water well used for public or livestock consumption.*

The BGT is not located within 200 feet of a spring or a fresh water well used for public or livestock consumption, as indicated on the attached aerial photograph and iWaters print outs.

(c) *An operator shall not locate a Below Grade Tank where depth to groundwater is less than 25 feet from the bottom of the tank.*

Depth to groundwater is estimated to be greater than 100 feet below the bottom of the BGT based on data from the NE Chaco Com 168H/169H Ground Bed Drilling Log. NE Chaco Com 168H/169H is located 930 feet southwest of the Chaco Truck 4-2 CDP and reports depth to water at 85 feet below ground surface. The NE Chaco Com168H/169H is 24 feet lower in elevation than the Chaco Trunk 4-2 CDP. Elevation differential between the location and the wash in Escrito Canyon is approximately 219 feet, with the location at a higher elevation. (See attached Ground Bed Drilling Log)

Source of GW Data	Latitude/Longitude	Legal Description	Elevation (ft)	Distance from BGT	Depth to Water (ft bgs)
Cathodic Well NE Chaco Com 168H/169H	N36.242323, W107.535455	I-13-23N-8W	7,054	930 ft SW	85
Water Well SJ 01156	N36.231549, W107.511011	18-23N-06W	6,902	8,505 ft SE	200
Water Well SJ 00681 27	N36.224729, W107.528435	13-23N-07W	6,988	7,539 ft S	-----
Water Well SJ 00681 26	N36.233287, W107.511078	7-23N-07W	6,934	8,133 ft SE	-----
Escrito Wash	N36.232305, W107.506347	7-23N-06W	6,859	9,495 ft SE	



ChacoTrunk 4-2 CDP
Below Grade Tank
Section 12, Township 23N, Range 07W
N36.24482, W107.53471
Rio Arriba County, NM
Scale 1:24,000

Chaco Trunk 4-2 CDP
BGT
Section 12, Township 23N, Range 07W
N36.24482, W107.53471
Rio Arriba County, NM

Chaco Trunk 4-2 CDP
BGT
Section 12, Township 23N, Range 07W
N36.24482, W107.53471
Rio Arriba County, NM

New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 272238.24 **Northing (Y):** 4014082.89 **Radius:** 1609

New Mexico Office of the State Engineer
Wells Without Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 272238.24 **Northing (Y):** 4014082.89 **Radius:** 1609

New Mexico Office of the State Engineer
Wells with Well Log Information

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-basin Code	County	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
SJ 01156		RA		2 2 1	18	23N	06W	274330	4012555*	2590	04/10/1980	04/20/1980	06/16/1980	1500	200	WESTERN DRILLING	867

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 272238.24 **Northing (Y):** 4014082.89 **Radius:** 3219

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Wells Without Well Log Information

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

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

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

(NAD83 UTM in meters)

POD Number	POD Code	Subbasin	County	Source	q 64	q 16	q 4	Sec	Tws	Rng	X	Y	Distance
SJ 00681 27			RA		2	2	3	13	23N	07W	272744	4011839*	2300
SJ 00681 26			RA		4	4	3	07	23N	06W	274329	4012748*	2480
SJ 01507			RA	Shallow	3	3	4	10	23N	07W	269889	4013098*	2547
SJ 02233			RA		1	1	2	15	23N	07W	269856	4012864*	2675
SJ 02233 CLW223636	O		RA		1	1	2	15	23N	07W	269856	4012864*	2675

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 272238.24 **Northing (Y):** 4014082.89 **Radius:** 3219

***UTM location was derived from PLSS - see Help**

Ground Bed Drilling Log

Company: WPX Energy Well: Chaco 2307-12E #168H Date: April 14, 2014

Location: T23NR7W Sec 12 State: New Mexico Rig: Stony #1

Ground Bed Depth: 320' Water Depth: 85' Diameter: 6 3/4

Fuel Usage: 100 gal. Latitude: Longitude:

DEPTH	FORMATION	OTHER
0-160'	Sand Stone, Shale, Sand w/ Shale w/ Sand	8" PVC
160'-100'	Sand Stone, Shale, Sand w/ Shale w/ Sand	
100'-160	Sand Stone, Shale, Sand w/ Shale w/ Sand	
160-220	Sand Stone, Shale, Sand w/ Shale w/ Sand	
220-320	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	

WPX requests the following variances:

1. The BGT will be protected from run on by being installed upon a top felt rock shield with a overlay of 30 mil rubber liner attached to the sidewalls of the inside of the containment berm. The 30 mil rubber liner will provide equal and/or better protection in the prevention of contamination of fresh water and protecting public health and the environment. (See attached photo)

2. A 42 inch tall, 12 gauge coated metal steel fence will be constructed around the BGT to protect livestock/wildlife as specified by the federal Surface Management Agency or, if not federal land/minerals; which will provide equal and/or better protection of a fence while preventing contamination of fresh water, protecting public health and the environment. (See attached photo)

3. If the surface owner is of public entity (i.e.: BLM) WPX will notify by email the intent to close the BGT in place of a certified mail letter. WPX will request a read receipt of the email which will be equal and/ or equivalent notification as certified mail.

Thank you,

Deborah Watson

Deborah Watson
Environmental Specialist

WPX SJB Gathering, LLC
San Juan Basin: New Mexico Assets
Production BGT: Buried Double-Wall Steel Tank
Design and Construction Plan

In accordance with Rule 19.15.17 NMAC, the following plan describes the general design and construction (D&C) of Below Grade Tanks (BGT) using buried double-wall steel tanks on WPX SJB Gathering, LLC (WPX) locations in the San Juan Basin of New Mexico. For those BGT which do not conform to this standard plan, a separate well-specific D&C plan will be developed and utilized.

General Plan Requirements:

1. WPX will post a well sign in accordance with the federal Surface Management Agency and rule NMAC 19.15.17.11.C

2. As a variance a 42 inch tall, 12 gauge coated metal steel "Fence" will be constructed around the BGT to protect livestock/wildlife as specified by the federal Surface Management Agency or, if not federal land/minerals, NMOCD rule 17 requirements. See Attached Design/photo.

3. The buried BGT will be constructed of steel with double-walls and double-bottom, welded following appropriate API and industry codes, coated with an epoxy based paint, covered with a steel #9 mesh screen, and equipped with an EFM to monitor high liquid levels and automatically shut off liquid discharges. A solid riser pipe will be installed between the interstitial spaces of the double-walls to allow monthly inspection to determine tank integrity.

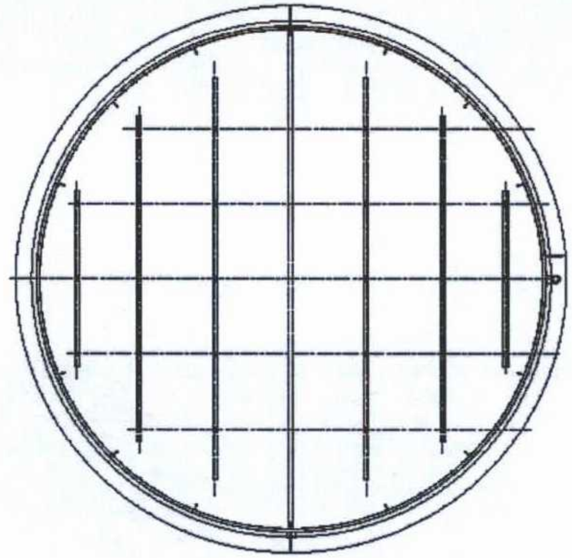
4. WPX will design and construct a BGT to contain liquids associated with the dehydration and compression of produced natural gas, which will be resistant to ultra violet light and the contents of the tank to prevent contamination of fresh water resources and protect public health and the environment.

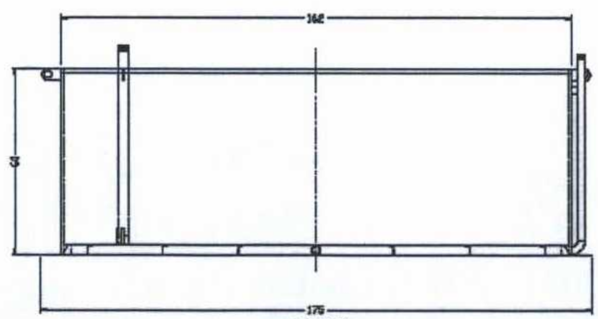
5. The BGT foundation will be level and free of rocks, debris, sharp edges or irregularities and have a firm compacted bottom and sidewalls that are stable for the soil conditions.

6. The BGT will be protected from run on by being installed within the impervious secondary containment provided by the AST tanks on location. See attached Design (Same as Fence)

7. The BGT will be placed in the excavation such that there is 30 mil rubber liner overlay between the surrounding soils and the tank top see attached design.

8. A solid riser pipe will be installed to allow withdrawal of liquids by suction. The riser will draw from the bottom of the BGT, capped when not in use and sloped to the BGT to allow drainage of liquids not collected during withdrawal operations.





ELEVATION

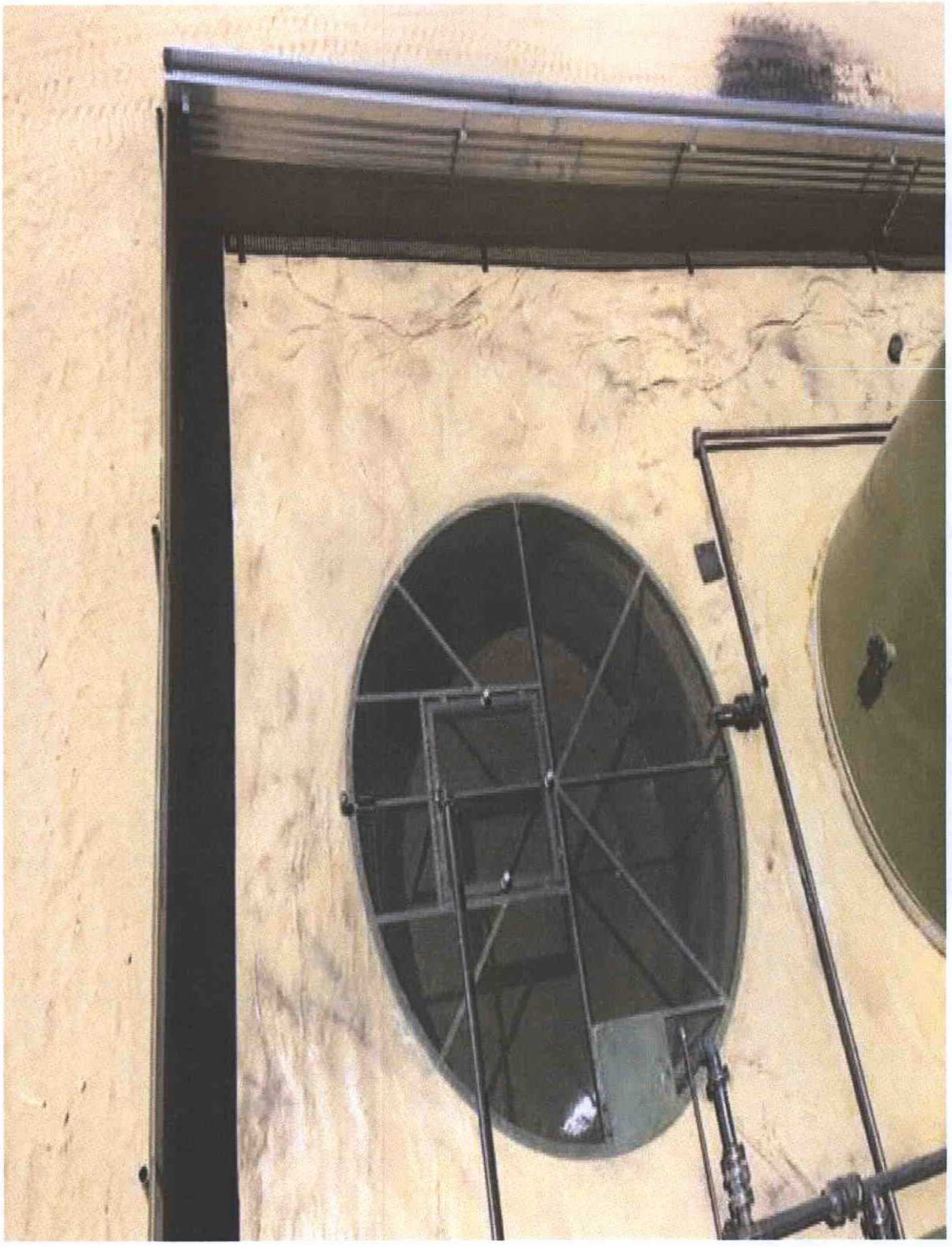
NOTES:
1. INTERIOR AND EXTERIOR TO BE VINYL WASH PREPARED AND COATED WITH GREEN DURA-PLATE EPOXY.
5. AFTER WELDING, TEST SPACE BETWEEN BOTTOMS W/ NO MORE THAN 3 PSI AIR.

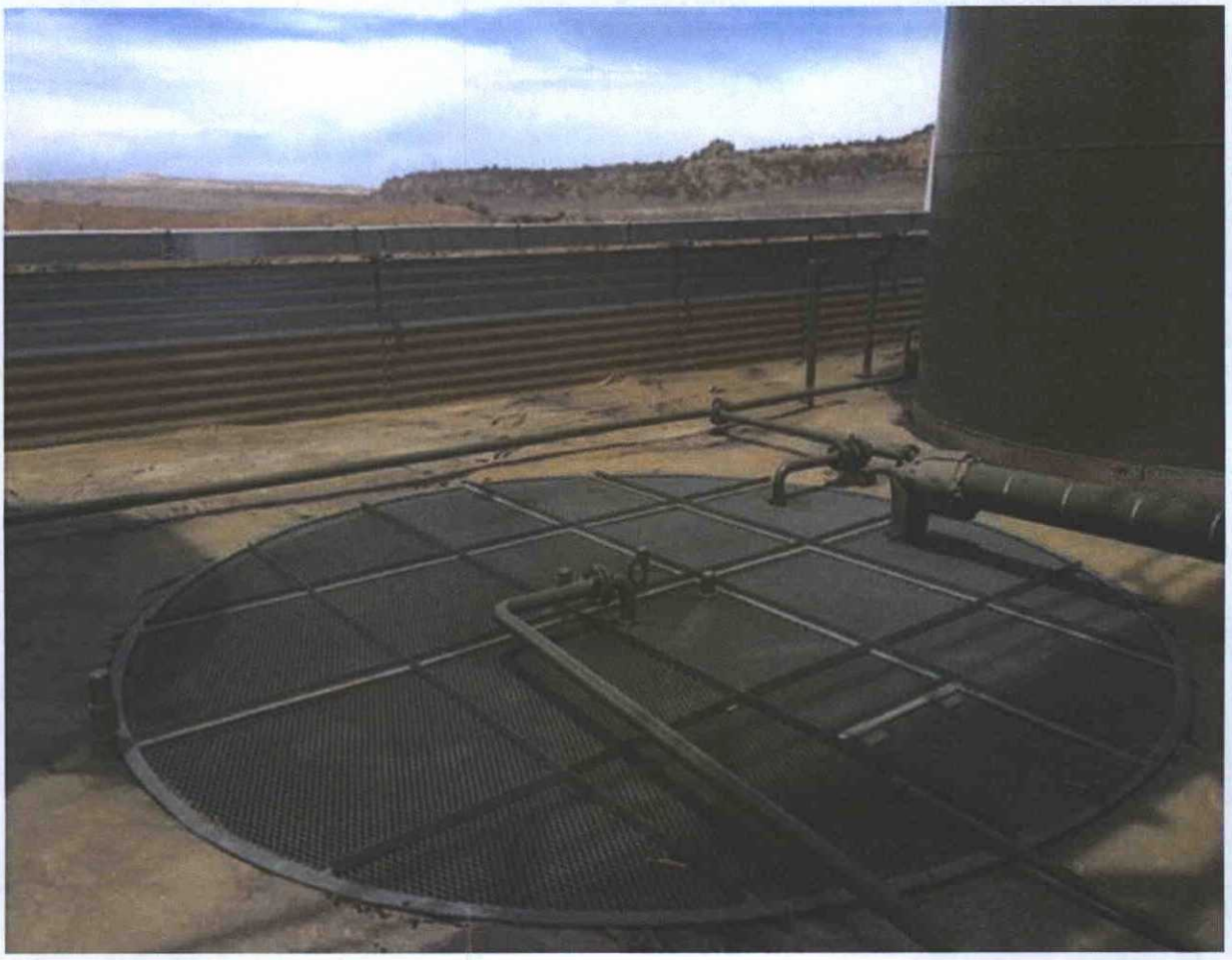
WEIGHT: 6,470 LBS.

PESCO
process equipment & service company inc

PIT TANK, DOUBLE BOTTOM, DOUBLE WALL
120 BBL 13'-6" OD X 5'-0" HIGH

WILLIAMS | 1/36 | [illegible]
CUSTOMER





WPX SJB Gathering, LLC
San Juan Basin: New Mexico Assets
Production BGT: Buried Double-Wall Steel Tank
Operations and Maintenance Plan

In accordance with Rule 19.15.17 NMAC, the following plan describes the general operations and maintenance (O&M) of production Below Grade Tanks (BGT) on WPX SJB Gathering, LLC (WPX) locations in the San Juan Basin of New Mexico. For those BGT which do not conform to this standard O&M plan, a separate well specific O&M plan will be developed and utilized.

1. WPX will inspect the BGT monthly for leaks and damage. Electronic copies of the inspections will be kept at the WPX San Juan Basin office for a minimum of five years following completion. Copies of the inspections will be available to NMOCD upon request.

2. Any oil or hydrocarbon collecting on the BGT will be removed. Saleable condensate will be returned to the sales tank. Slop oil from compression will be recycled with Safety Kleen, Farmington, NM or Hydropure, Aztec, NM (No Permit Required).

3. WPX will only allow produced liquids meeting the RCRA exemption for O&G wastes to be stored in the BGT. WPX will not discharge or store any hazardous waste as defined under RCRA 40CFR 261 and 19.15.2.7.H.3 NMAC in any BGT.

4. WPX shall maintain sufficient freeboard for to prevent overflow. Discharges to the BGT will be shutoff automatically if the high-level alarm is triggered from the EFM or manually if the EFM is not functional.

5. The Steel fencing around the perimeter of the BGT shall be maintained as protection from run-on.

6. Produced water will be disposed by evaporation or transport any of the following NMOCD approved facilities depending on the well location: Basin Disposal, Inc in Bloomfield, New Mexico (Permit # NM-01-005), WPX Energy Rosa SWD#1 (Permit # SWD-916), WPX Energy Rosa #94 (Permit # SWD-758), Burlington Resources Jillson SWD#1 (Permit #R10168A), or other NMOCD approved water disposal facilities.

7. If the tank integrity is compromised:
   a. All discharges will be shut off to the BGT.
   b. All liquids will be removed as soon as possible but no later than 24 hours after discovery.
   c. WPX will notify and report to NMOCD in accordance to 19.15.29 NMAC and all other applicable agency's as require.

WPX SJB Gathering, LLC
San Juan Basin:New Mexico Assets
Production BGT: Buried Double-Wall Steel Tank
Closure Plan

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general closure requirements of below-grade tanks (BGT) on WPX SJB Gathering, LLC (WPX) locations in the San Juan Basin of New Mexico. This is WPX's standard closure procedure for all BGTs regulated under Rule 19.15.17 NMAC and operated by WPX. For those closures which do not conform to this standard closure plan, a separate BGT specific closure plan will be developed and utilized.

Closure Conditions and Timing for BGT:

- Within 60 days of cessation of operation WPX will:
  - Remove all liquids and sludge and dispose in a division approved manner
- Within 72 Hrs or 1 week prior to closure WPX will:
  - Give notice to Surface owners by certified mail. For public entities by email as specified on the variance page.
  - Give notice to District Division verbally and in writing/email
- Within 6 months of cessation of operation WPX will:
  - Remove BGT and dispose, recycle, reuse, or reclaim in a division approved manner
  - Remove unused onsite equipment associated with the BGT
- Within 60 Days of Closure WPX will:
  - Send the District Division a Closure Report per 19.15.17.13.F

General Plan Requirements:

1. Prior to initiating any BGT Closure except in the case of an emergency, WPX will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or 1 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 of record will be notified as soon as practical.

2. Notice of Closure will be given to the Aztec District 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 (WPX)
   b. Well Name and API Number
   c. Location (USTR)

3. All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed at an NMOCD approved facility depending on the proximity of the BGT site. Facilities may include: Rosa Unit SWD #1 (Order: SWD-916, API: 30-039-27055), Rosa Unit #94 (Order: SWD-3RP-1003-0, API: 30-039-23035), Jillson Fed. SWD #001 (Order: R10168/R10168A, API: 30-039-25465), Middle Mesa SWD #001 (Order: SWD-350-0, API: 30-045-27004) and/or Basin Disposal (Permit: NM-01-0005).

4. Solids and sludge's will be shoveled and /or vacuumed out for disposal at Envirotech (Permit Number NM-01-0011) or Industrial Ecosystems Inc (Permit Number NM-01-0010B).

5. WPX will obtain prior approval from NMOCD 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 Division. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liners 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, such as San Juan Regional Landfill operated by Waste Management under NMED Permit SWM-052426.

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

7. Following removal of the tank and any liner material, WPX 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

Depth below bottom of pit to groundwater less than 10,000 mg/1 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 SE-846 Method 8021B or 8015M	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

Depth below bottom of pit to groundwater less than 10,000 mg/1 TDS	**Constituent**	**Method**	**Limit**
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 SE-846 Method 8021B or 8015M	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

Depth below bottom of pit to groundwater less than 10,000 mg/1 TDS	Constituent	Method	Limit
>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 SE-846 Method 8021B or 8015M	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

(1) Or other test methods approved by the division
(2) Numerical limits or natural background level, whichever is greater
(19.15.17.13 MAC-Ro, 19.15.17.13 NMAC 3/28/2013)

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

9. Upon completion of the tank removal, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot of top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and prevent ponding.

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

Reclamation of the BGT shall be considered complete when:

a. Vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels
b. Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds)

OR

c. Pursuant to 19.15.17.13.H.5d WPX will comply with obligations imposed by other applicable federal or tribal agencies in which their re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

10. 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.

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 Division Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner & NMOCD)
- Backfilling & Cover Installation
- Confirmation Sampling Analytical Results
- Disposal Facility Name(s) and Permit Number(s)
- Application Rate & Seeding techniques
- Photo Documentation of Reclamation