



Souder, Miller & Associates ♦ 401 W. Broadway ♦ Farmington, NM 87401
(505) 325-7535 ♦ (800) 519-0098 ♦ fax (505) 326-0045

August 4, 2023

SMA #5132071

Mr. Tom Long
Enterprise Products Operating LLC
Field Environmental-San Juan Basin 614
614 Reilly Avenue
Farmington, NM 87401

BGT REGISTRATION PACKET FOR CHACO PLANT TANK #23(c)
LATITUDE 36.485362°, LONGITUDE -108.123686°

Dear Mr. Long:

Souder, Miller and Associates (SMA) has compiled the following BGT Registration Packet including Form C-144 in accordance with the NMOCD Pit Rules per 19.15.17 NMAC. The tank is located at latitude 36.485362°, longitude -108.123686° within the fenced area of the Chaco Plant. Tank information is presented in Table 1.

Table 1: Tank Information				
Name	Chaco Plant Tank #23(c)			
Location	Latitude/Longitude		Section, Township, Range	
	36.485362°	-108.123686°	NW ¼ / SW ¼ Unit N Section 16	T26N R12W
Date of Site Visit	N/A			
County	San Juan			
Land Owner	Private			
Tank Capacity	1,000 gallons			
Tank Dimensions	Unknown			
Tank Serial Number (If Available)	Unknown			
Tank Contents	Waste oil, skid drain fluids, wash down water			
Tank Construction Notes	Steel double wall tank with level detection and riser pipe in annular space for monitoring			
Tank Operation Notes	Tank is inspected monthly			

Chaco Plant Tank #23(c)
BGT Registration

August 2023
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Siting Criteria (19.15.17.10 NMAC)

The below-ground tank (BGT) is located at the Chaco Plant at an elevation of 6021 feet above mean sea level (amsl). The BGT meets all siting criteria listed in 19.15.17.10 NMAC with the exceptions for which variances are requested.

Depth to groundwater at the site is estimated to be approximately 16-20 feet below ground surface (bgs). This data is primarily supported by a NMOSE report detailing ground water encountered during monitoring well installation in 2021 on the southern portion of the Chaco Plant location. The BGT base is estimated at 10 feet bgs. Because the BGT base is thus estimated to be less than 25 feet above the ground water level, a variance is being requested for this siting criteria.

Figure 1 shows the vicinity of Chaco Plant and BGT 23(c) location. Figure 2 shows the location of the nearby OSE POD wells in relation to Tank 23(c). The base layer of Figure 1 is the ESRI Imagery Hybrid Map. An Imagery Hybrid map of the site is provided as Figure 2 which shows the vicinity of the BGT with 500-foot and 1,000-foot buffers. The Figure 3 base layer is the USGS Topographic map and demonstrates the BGT is not located within 100 feet of any continuous flowing watercourse, any other significant watercourse, sinkhole, lakebed, wetlands or playa lake as measured from the ordinary high water mark, or within 200 feet of a spring or freshwater well used for public or livestock consumption, as indicated by the USGS topographic map or within 300 horizontal feet of any permanent residences, schools, hospitals, institutions or churches. The primary water features illustrated on Figure 3 are the non-contact water ponds located northwest of the Chaco Plant facility boundary, the stormwater pond located to the southwest of the Chaco Plant facility boundary, and the Gallegos Wash located to the northeast of the Chaco Plant.

The BGT subject to the attached application for registration under 19.15.17 NMAC is located within the Chaco Plant boundaries and was in existence prior to the promulgation of 19.15.17 NMAC. A review of the best available data and a visual inspection of the siting criteria of 19.15.17 NMAC specific to the BGT in question demonstrate that the BGT does not appear to pose a threat to fresh water, public health, or the environment.

Local Geology and Hydrology

The Chaco Plant is located near the center of a large, elevated plateau south of Bloomfield, New Mexico. This plateau is also where the Navajo Agricultural Products Industry (NAPI) fields are located. The Plant is near the southeast edge of the agricultural fields, about 11 miles west of Highway 550. The plateau consists of eroded sandstone, shales, and conglomerates belonging to the Paleocene Nacimiento Formation. To the east of the plateau are the bluffs associated with Blanco Wash. These bluffs are composed mostly of medium-grained mixed clastic rocks belonging to the Eocene San Jose Formation.

Groundwater is estimated to be about 20 feet bgs (6,016 feet amsl) at this site, based on the following documentation:



Chaco Plant Tank #23(c)
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- Depth to groundwater reported during monitoring well instillation on the southern portion of the Chaco Plant was less than 20 feet.
- Using the New Mexico Oil and Gas Association (NMOGA) differential method for “surface drainage influenced groundwater”, depth to groundwater is estimated to be 65 feet below the BGT at 5,971 feet amsl, based upon the elevation base of the West Fork Gallegos Canyon located 0.96 miles to the west at its closest location to the BGT.

Regional Geology and Hydrology

The San Juan Basin is located in the Navajo section of the Colorado Plateau and is characterized by broad open valleys, mesas, buttes and hogbacks. Away from major valleys and canyons, topographic relief is generally low. Native vegetation is sparse and shrubby consisting primarily of desert scrub (sage and chamisa) in the lower elevations and juniper and piñon in the higher elevations. Drainage of the San Juan Basin is by the San Juan River and its associated tributaries, including the La Plata and the Animas Rivers. The San Juan River is a tributary of the Colorado River. The climate is arid to semi-arid with an average annual precipitation of 8 to 10 inches. Soils within the basin consist of physically weathered parent rock. Aeolian depositional systems are responsible for a majority of the material transport in the San Juan Basin, fluvial systems are also present though less predominant.

The primary aquifers in the San Juan Basin are contained in Cretaceous and Tertiary sandstones, as well as Quaternary Alluvial Deposits. The Nacimiento Formation of Paleocene age occurs at the surface in a broad belt at the western and southern edges of the central San Juan Basin and dips beneath the San Jose Formation in the center. The lower part of the Nacimiento Formation is composed of interbedded black carbonaceous mudstones and white coarse-grained sandstones. The upper part is comprised of mudstones and sandstones. Shales and conglomerates are often interbedded within the mudstones and sandstones, but they are not the primary rock type. The Nacimiento Formation is generally slope forming, even in the sandstone units. The thickness of the Nacimiento ranges from 418 to 2,232 feet. Aquifers within the coarser and continuous sandstone bodies of the Nacimiento Formation are between 0 and 1000 feet deep in this section of the basin. Wells within these bodies flow from 16 to 100 gallons per minute (gpm) and transmissivities are expected to be 100 ft²/d. Groundwater within these units flows towards the San Juan River.



Chaco Plant Tank #23(a)
BGT Registration


August 2023
SMA #5132071

If there are any questions regarding this report, please contact Erin or Stephanie at 505- 325-7535.

Sincerely,
Souder, Miller & Associates



Erin Berry
Environmental Scientist Tech III



Stephanie Hinds, P.E.
Project Engineer

FIGURES:

- Figure 1 – Vicinity Map
- Figure 2 – Site Map with 500' and 1000' buffers
- Figure 3 – Topographic Site Map with 100', 200' and 300' buffers

ATTACHMENTS:

- Form C-144
- Variance Request
- Tank Diagrams
- Operational Requirements, Closure Requirements and Maintenance Plan
- NMOSE Depth to Groundwater Documentation





Legend

- ★ Chaco Plant
- Tank 23(c)
- Facility Boundary

0 0.25 0.5 0.75 1 Miles



SOUDER, MILLER & ASSOCIATES
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098
www.soudermiller.com

New Mexico State University, San Juan County, NM, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, Maxar

ENTERPRISE PRODUCTS OPERATING LLC

NEW MEXICO

CHACO PLANT

TANK #23 (c)

JULY 2023

SITE VICINITY MAP

SECTION 16, T26N, R12W

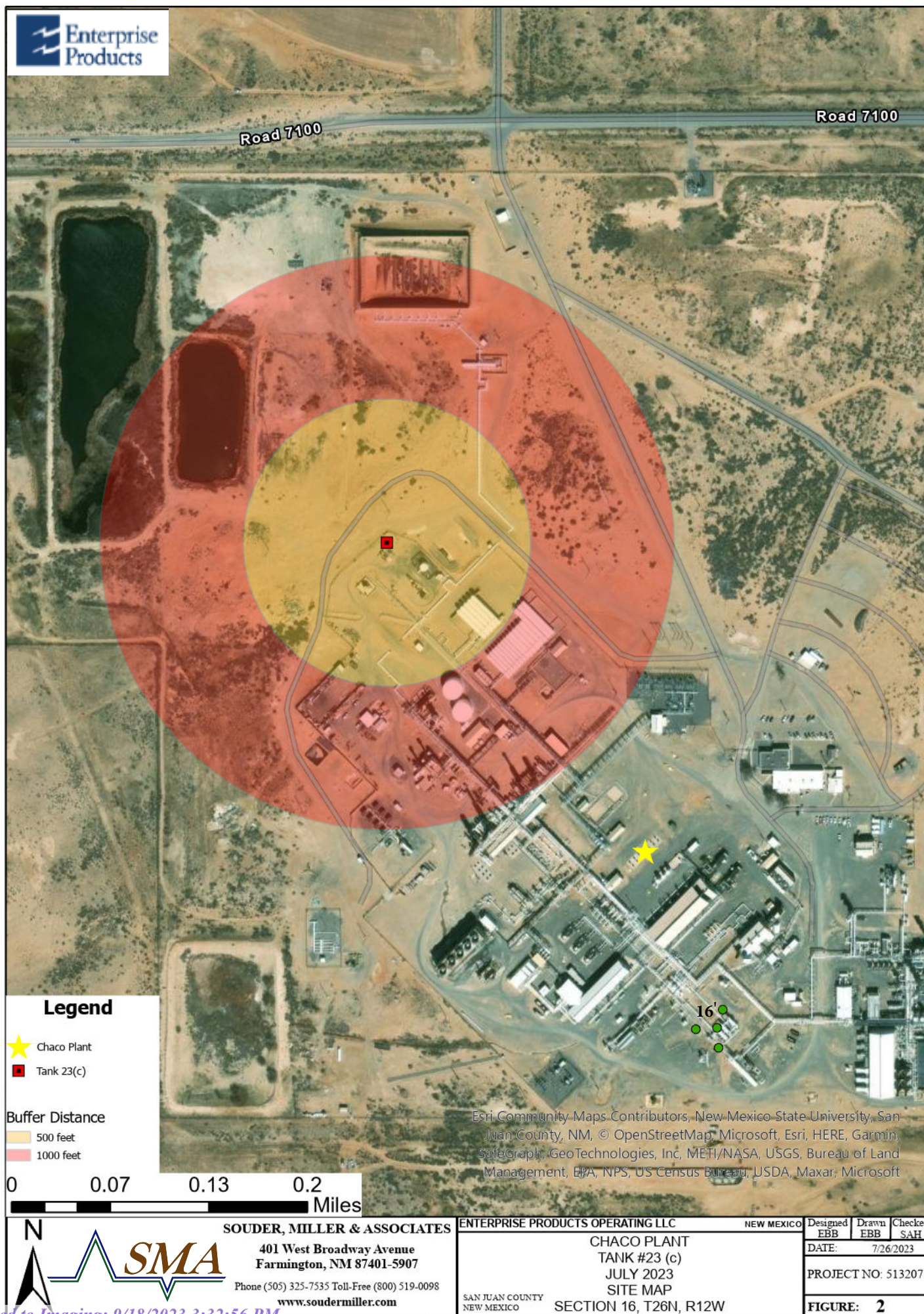
SAN JUAN COUNTY
 NEW MEXICO

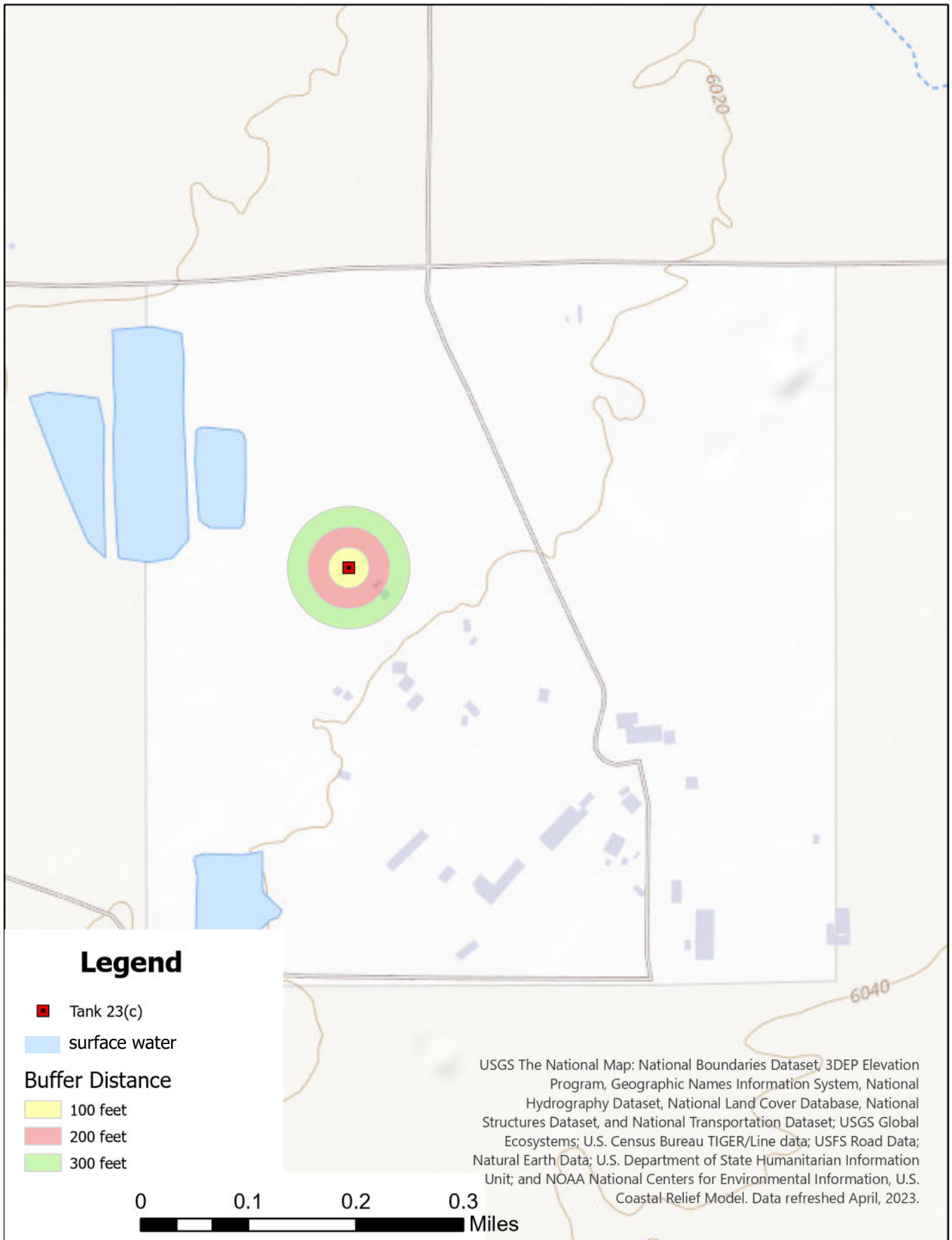
Designed EBB	Drawn EBB	Checked SAH
DATE: 7/26/2023		
PROJECT NO: 5132071		
FIGURE: 1		

Scale: 1:20,089

Document Path: C:\Users\lebb\Documents\ArcGIS\Projects\Chaco 23b and c\Chaco 23b and c.aprx

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Legend

- Tank 23(c)
- surface water

Buffer Distance

- 100 feet
- 200 feet
- 300 feet

0 0.1 0.2 0.3
Miles

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.



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Farmington, NM 87401-5907
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ENTERPRISE PRODUCTS OPERATING LLC

NEW MEXICO

CHACO PLANT
TANK #23 (c)
JULY 2023
SITE MAP
SECTION 16, T26N, R12W

Designed EBB	Drawn EBB	Checked SAH
DATE: 7/26/2023		
PROJECT NO: 5132071		
FIGURE: 3		

Scale: 1:7,583

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 October 11, 2022

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

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

BTG1 TANK(C)

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: Enterprise Products Operating LLC OGRID #: 241602
Address: P.O. Box 4324, Houston, TX 77210
Facility or well name: Chaco Plant Tank #23(c)
API Number: _____ OCD Permit Number: _____
U/L or Qtr/Qtr NW1/4 of SW1/4 Section 16 Township 26N Range 12W County: San Juan
Center of Proposed Design: Latitude 36.485362 Longitude -108.123686 NAD83
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: 23.81 bbl Type of fluid: Waste oil, skid drain fluid, wash down water
Tank Construction material: Steel double walled and bottom
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other Double wall tank with level detection and riser pipe in annular space for monitoring
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 _____

6.

Netting: Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)☐ Screen ☐ Netting ☒ Other Enclosed☐ 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☐ NAWithin 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 ☐ NoWithin 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 ☐ NoWithin 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 ☐ NoWithin 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 H₂S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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): Jon E. Fields Title: Director, Field Environmental

Signature:  Date: 08/22/2023

e-mail address: environmental@eprod.com Telephone: 713-381-6595

18.

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

OCD Representative Signature: Victoria Venegas Approval Date: 09/18/2023

Title: Environmental Specialist OCD Permit Number: BTG1 TANK(C)

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: _____

Chaco Plant, Tank #23(c) Variance Request

Enterprise requests a variance for the items listed below. The requested variances, per 19.15.17.15A, provide equal or better protection of fresh water, public health, and the environment.

1. Depth to Water

- BGT base is estimated to be 10 feet above the static water level. This BGT does not contain natural gas liquids or condensate as it is used as a sump for oily water drainage (skid drain). The contents represent a low risk factor at the Chaco Plant and the containment, liquid level monitoring equipment, and frequency of disposal provide the necessary protection of fresh water, public health and the environment.

2. Signage

- BGT is located within a facility signed appropriate to NMAC 20.2.70, Title V General Construction Permit. The sign is legible and contains the operator's name, the location of the compressor station in decimal degrees and township, section, and range and emergency contact telephone numbers. Additional signage relevant to the Title V air quality permit is also present and provides equal or better protection of fresh water, public health, and the environment.

3. 2008 Pit Rules

- Chaco Plant Tank #23(c) was installed prior to the 2008 pit rules. The BGT does not pose an imminent threat to the protection of fresh water, public health, or the environment.

OPERATIONAL REQUIREMENTS (19.15.17.12 NMAC) Parts A. and D.

Enterprise will operate and maintain the below-grade tank to contain liquids and solids and maintain the secondary containment system to prevent contamination of fresh water and protect public health and the environment.

Enterprise shall not discharge into or store any hazardous waste in the below-grade tank.

If the below-grade tank develops a leak, Enterprise shall remove all liquid above the damage or leak within 48 hours of discovery, notify the appropriate division office and repair the damage or replace the below- grade tank as applicable per 19.15.29 NMAC.

Enterprise shall operate and install the below-grade tank to prevent the collection of surface water run-on.

Enterprise shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below- grade tank.

Enterprise shall remove any measurable layer of oil from the fluid surface of a below-grade

tank. Enterprise shall inspect the below-grade tank for leakage and damage at least monthly.

Enterprise shall document the integrity of each tank at least annually and maintain a written record of the integrity for five years.

Enterprise shall maintain adequate freeboard to prevent overtopping of the below-grade tank.

CLOSURE REQUIREMENTS (19.15.17.13 NMAC)

Enterprise shall not commence closure without first obtaining approval of the closure plan submitted with the permit application or registration pursuant to 19.15.17.13 NMAC.

Enterprise shall close the below-grade tank by first removing all contents and transferring the materials to a division approved facility.

Enterprise shall test the soils beneath the below-grade tank as follows:

A minimum of one composite sample to include any obvious stained or wet soils, or other evidence of contamination shall be collected from under the below-grade tank and the sample shall be analyzed for the identified constituents with respective concentrations listed in Table I of 19.15.17.13 NMAC below.

Table I Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed			
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

If any contaminant concentration is higher than the above parameters, the division may require additional delineation upon review of the results and Enterprise must receive approval before proceeding with closure.

If all contaminant concentrations are less than or equal to the parameters listed above, Enterprise can proceed to backfill the excavation with non-waste containing, uncontaminated, earthen material.

CLOSURE NOTICE

Enterprise shall notify the appropriate division district office verbally, and in writing, at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the Enterprise name and the location to be closed, including the unit letter, section, township, and range.

Enterprise shall notify the surface owner by certified mail (return receipt requested) that Enterprise plans closure operations at least 72 hours, but not more than one week, prior to any closure operation. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this requirement.

CLOSURE REPORT AND BURIAL IDENTIFICATION

Within 60 days of closure completion, Enterprise shall submit a closure report on form C-144, with necessary attachments to document all closure activities including sampling results, information required by 19.15.17 NMAC, and details on back-filling, capping, and covering, where applicable. In the closure report, Enterprise shall certify that all information in the report and attachments is correct, and that Enterprise has complied with all applicable closure requirements and conditions specified in the approved closure plan.

TIMING REQUIREMENTS FOR CLOSURE

Within 60 days of cessation of operations, Enterprise 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.

Within six months of cessation of operations, Enterprise shall 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. If there is any equipment associated with a below-grade tank, Enterprise shall remove the equipment, unless the equipment is required for some other purpose.

SOIL COVER DESIGNS FOR BELOW-GRADE TANKS

The soil cover for closures after site contouring (where Enterprise has removed the below-grade tank and, if necessary, remediated the soil beneath the below-grade tank to chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0) shall consist of the background thickness of topsoil or one foot of suitable material, whichever is greater.

Enterprise shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

RECLAMATION AND RE-VEGETATION / RECLAMATION OF AREAS NO LONGER IN USE

All areas disturbed by the closure of the below-grade tanks, except areas reasonably needed for production operations or for subsequent drilling operations, shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

Enterprise shall replace topsoils and subsoils to their original relative positions and shall be contoured to achieve erosion control, long-term stability, and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season following closure of the below-grade tank.

Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

OTHER REGULATORY REQUIREMENTS

The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operations subject to those provisions, provided the other requirements provide equal or better protection of fresh water, human health and the environment.

Enterprise shall notify the division when reclamation and re-vegetation are complete.

NMOSE Depth to Groundwater Determination

File No. SJ-4463 POD1-4



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose: ☐ Pollution Control And/Or Recovery ☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test) ☐ Construction Site/Public Works Dewatering ☐ Other(Describe):
☒ Monitoring Well ☐ Mine Dewatering

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: 5/25/21

Requested End Date: Unknown

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Enterprise Products Company	Name: Ensolum, LLC
Contact or Agent: <input type="checkbox"/> check here if Agent Thomas Long	Contact or Agent: <input checked="" type="checkbox"/> check here if Agent Kyle Summers
Mailing Address: 614 Reilly Ave.	Mailing Address: 606 South Rio Grande, Suite A
City: Farmington	City: Aztec
State: New Mexico Zip Code: 87401	State: New Mexico Zip Code: 87410
Phone: 505-215-4727 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):	Phone: 903-821-5603 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):
E-mail (optional): tjlong@eprod.com	E-mail (optional): ksummers@ensolum.com

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

2021 MAY 19 AM 10 23

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: SJ-4463 POD1-4	Trn. No.:	Receipt No.: 5-6808
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date: 5-21-2022	

Page 1 of 3

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet) ☐ UTM (NAD83) (Meters) ☒ Lat/Long (WGS84) (to the nearest 1/10th of second)
☐ NM West Zone ☐ Zone 12N
☐ NM East Zone ☐ Zone 13N
☐ NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
see attached	see attached	see attached	see attached

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ☒ No If yes, how many _____

Other description relating well to common landmarks, streets, or other:
 see attached

Well is on land owned by: Private

Well Information: **NOTE: If more than one (1) well needs to be described, provide attachment.** Attached? ☒ Yes ☐ No
 If yes, how many 4

Approximate depth of well (feet): 20	Outside diameter of well casing (inches): 2.25
Driller Name: Enviro-Drill, Inc.	Driller License Number: WD-1186

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

One existing temporary well is not OSE permitted and was not installed by a driller, but by hydro-excavation. A temporary monitoring well was then installed in this boring using 10 feet of screen and solid PVC well casing to above the surface. The temporary well will be completed as a permanent groundwater monitoring well during the current drilling activities.

Enterprise proposes to install three (3) additional monitoring wells. The primary objective of the site investigation will be to install groundwater monitoring wells and evaluate constituent of concern concentrations in groundwater at the site. The proposed scope of work will include the advancement of three (3) bore holes and the completion of three (3) permanent monitoring wells utilizing a hollow stem auger drilling rig. Low flow or bailer sampling methods will be utilized to sample the monitoring wells, resulting in minimal water removal. Description of a planned plugging method is provided (see attached). Plugging Plan of Operations will be submitted prior to plugging of any monitoring well(s).

2021 MAY 19 AM 10:23

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: SJ-4463 POD1-4

Trn No.:

Page 2 of 3

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: <input checked="" type="checkbox"/> Include the reason for the monitoring well, and, <input checked="" type="checkbox"/> The duration of the planned monitoring.	Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.		

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Thomas J. Long

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 21 day of May 20 21, for the State Engineer,

John R. D'Antonio Jr., P.E., State Engineer

By: Miles Juett
Signature

Miles Juett
Print

Title: Assistant Watermaster
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: SJ-4463 POD1-POD4

Trn No.:

NMOSE Permit to Drill a Well(s) With No Water Right - Conditions of Approval SJ-4463 POD1-POD4

The New Mexico Office of the State Engineer (NMOSE) has determined that existing water rights will not be impaired by this activity. This application is approved without publication provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state. This application approval (i.e., permit) is further subject to the following conditions of approval.

1. This permit is approved as follows:

Permittee(s):	Enterprise Products Company Attn: Thomas Long 614 Reilly Ave. Farmington, New Mexico 87401
Permit Number:	SJ-4463
Application File Date:	May 19, 2021
Priority:	N/A
Source:	Groundwater
Point(s) of Diversion:	Four points of diversion (PODs), SJ-4463 POD1-4, are proposed. The PODs include one existing unpermitted temporary monitoring well which will be replaced by a permanent monitoring well (EW-1) and three proposed monitoring wells (EW-2 thru EW-4) all of which are for evaluation of constituent of concern concentrations in groundwater at the site (Table 1). The wells will be located on land owned by Enterprise Field Services. The site is located at the Enterprise Field Services Chaco Gas Plant, approximately 10 miles west of US 550 on County Road 7100. The PODs will be located within the SW/4 SE/4 SW/4 of Section 16, T26N, R12W, NMPM, at the following approximate point locations (Lat./Long.), Decimal Degrees, NAD83).

Table 1: Proposed New Monitoring Well

POD Number and Owner's Well Name	Casing: Diameter (inches) and Depth (feet)		Longitude (Dec. Deg.)	Latitude (Dec. Deg.)
EW-1 (SJ-4463 POD1)	2.25	20	-108.12054	36.481646
EW-2 (SJ-4463 POD2)	2.25	20	-108.120743	36.481636
EW-3 (SJ-4463 POD3)	2.25	20	-108.120527	36.481494
EW-4 (SJ-4463 POD4)	2.25	20	-108.120488	36.481784

Purpose of Use:	Groundwater sampling
-----------------	----------------------

NMOSE Permit to Drill a Well(s) With No Water Right
Conditions of Approval

SJ-4463 POD1-POD4

Page 2 of 5

May 20, 2021

Place of Use: N/A

Amount of Water: N/A

2. No water shall be appropriated and beneficially used from any wells or borings approved under this permit.
3. No water shall be diverted from the well(s) except for initial well development and periodic sampling purposes. Upon completion of monitoring activities the well(s) shall be plugged in accordance with Subsection C of 19.27.4.30 NMAC, unless a permit to use water is acquired from the NMOSE.
4. The well(s) may continue to be used indefinitely for groundwater sampling or monitoring required for the current site investigation and any associated remediation, so long as they remain in good repair. **A new permit shall be obtained from the NMOSE prior to replacing a well(s) or for any change in use as approved herein.**
5. Water well drilling and well drilling activities, including well plugging, are regulated under NMOSE Regulations 19.27.4 NMAC. These regulations apply, and provide both general and specific direction regarding the drilling of wells in New Mexico. Note that the construction of any well that allows groundwater to flow uncontrolled to the land surface or to move appreciably between geologic units is prohibited.
6. In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging is required by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30 and 19.27.4.31 NMAC. However, pursuant to 72-12-12 NMSA 1978 and 19.27.4.8 NMAC, a driller's license is not required for the construction of a driven well with an outside casing diameter of 2 $\frac{3}{8}$ inches or less and that does not require the use of a drill rig (e.g., auger) for installation. This exemption is not applicable to well plugging.
7. The permittee has not stated whether artesian conditions are likely to be encountered at the proposed well/borehole location(s). However, if artesian conditions are encountered during drilling, all rules and regulations pertaining to the drilling and casing and plugging of artesian wells shall be followed.
8. A Well Record documenting the as-built well construction and materials used shall be filed for each of the new wells in accordance with Subsection N of 19.27.4.29 NMAC. **Well Records shall be filed with the State Engineer (NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410) within 30 days after completion of the well(s).** Well installation(s) shall be complete and the well record(s) filed no later than one year from the date of approval of this permit.
9. If the required Well Record documentation is not received within one year of the date of permit approval, this permit will automatically expire.

NMOSE Permit to Drill a Well(s) With No Water Right
Conditions of Approval

SJ-4463 POD1-POD4

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May 20, 2021

10. When the permittee receives approval or direction to permanently abandon the well(s)/borehole(s) covered by this permit, plugging shall be performed by a New Mexico licensed well driller. The well(s)/borehole(s) shall be plugged pursuant to Subsection C of 19.27.4.30 NMAC using the following method, unless an alternate plugging method has been proposed by or on behalf of the well owner and approved by the NMOSE. If a well/borehole has encountered artesian conditions, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities concerning artesian wells. Additionally, if the following standardized plugging sealant is not appropriate for use due to incompatibility with the water quality or any soil and water contaminants encountered, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities.

- a. Obstructions in a well/borehole shall be identified and removed if possible. If an obstruction cannot be removed, the method used to grout below and around the obstruction shall be described in detail in the plugging record.
- b. Prior to plugging, calculate the theoretical volume of sealant needed for abandonment of the well/borehole based on the actual measured pluggable depth of the well/borehole and the volume factor for the casing/borehole diameter. Compare the actual volume of sealant placed in the well/borehole with the theoretical volume to verify the actual volume of sealant is equal to or exceeds the theoretical volume.
- c. Portland Type I/II cement shall be used for the plugging sealant. The water mixed with the cement to create the plugging sealant shall be potable water or of similar quality. Portland cement has a fundamental water demand of 5.2 gallons of water per 94-lb sack of cement. Up to a maximum of 6.0 gallons per 94-lb sack is acceptable to allow for greater pumpability.

Pure bentonite powder ("90 barrel yield") is allowed as a cement additive by NMOSE and American Water Works Association (AWWA) guidelines. If a bentonite additive is used, the following rates and mixing guidelines shall be followed. For a rate or a mixing procedure other than that provided below, the NMOSE District V office must be contacted for pre-approval. Neither granular bentonite nor extended-yield bentonite shall be mixed with cement for the purpose of this plugging activity. When supplementing a cement slurry with bentonite powder, water demand for the mix increases at a rate of approximately 0.65 gallon of water for each 1% increment of bentonite bdwc (by dry weight cement) above the stated base water demand of 5.2 gallons water per 94-lb sack of cement for neat cement. Bentonite powder must be hydrated separately with its required increment of water before being mixed into the wet neat cement. If water is otherwise added to the combination of dry ingredients or the dry bentonite is blended into wet cement, the alkalinity of the cement will restrict the yield of the bentonite powder, resulting in excess free water in the slurry and excessive cement shrinkage upon curing.

- d. Placement of the sealant within the well/borehole shall be by pumping through a tremie pipe extended to near the bottom of the well/borehole and kept below the top of the slurry column (i.e., immersed in the slurry) as the well/borehole is plugged from bottom upwards in a manner that displaces the standing water column.
- e. Prior to, or upon completion of plugging, the well casing may be cut-off below grade as necessary to allow for approved construction onsite, provided a minimum six-inch thickness of reinforced abandonment plugging sealant or concrete completely covers the

NMOSE Permit to Drill a Well(s) With No Water Right
Conditions of Approval

SJ-4463 POD1-POD4

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May 20, 2021

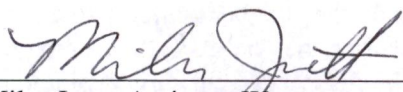
top of the cut-off casing. Any remaining void to the surface may be filled with native soil, concrete, or asphalt as needed to match the surrounding surface material and blended with the surface topography to prevent ponding.

- f. **Within 30 days after completion of well/borehole plugging, a complete Plugging Record shall be filed with the State Engineer** in accordance with Paragraph (3) of Subsection C of 19.27.4.30 NMAC for each well/boring plugged. The Well Plugging Record(s) shall be filed with the State Engineer at the NMOSE District V Office, 100 Gossett Drive, Suite A, Aztec, NM 87410. The required well plugging record form is available at <http://www.ose.state.nm.us/STST/wdForms.php>.
11. In accordance with Subsection C of 19.27.4.30 NMAC, a well/borehole that does not encounter groundwater may be immediately plugged by filling with drill cuttings or clean native fill to within 10 feet of land surface and by plugging the remaining 10 feet to the land surface with a sealant approved by the Office of the State Engineer. A Plugging Record shall be filed with the State Engineer as described above.
12. Should another regulatory agency sharing jurisdiction of the project authorize, or by regulation require, more stringent requirements than stated herein, the more stringent procedure should be followed. These, among others, may include provisions regarding pre-authorization to proceed, type of methods and materials used, inspection, or prohibition of free discharge of any fluid or other material to or from the well that is related to the drilling and/or monitoring process.
13. Pursuant to 72-12-3 NMSA 1978, the applicant may or may not have provided written documentation with the application, which the applicant claims as confirmation that access has been granted for the aforementioned well(s) to be located on property owned by someone other than the well owner/applicant. NMOSE approval of this permit in no way infers the right of access to land not owned by the well owner/applicant.
14. The State Engineer retains jurisdiction of this permit.

The application for drilling well(s) SJ-4463 POD1-POD4 without a water right, submitted on May 19, 2021, is hereby approved with the aforesaid conditions applied, when signed by an authorized designee of the State Engineer:

Witness my hand and seal this 21st day of May, A.D. 2021.
John R. D'Antonio Jr., P.E., State Engineer

By:

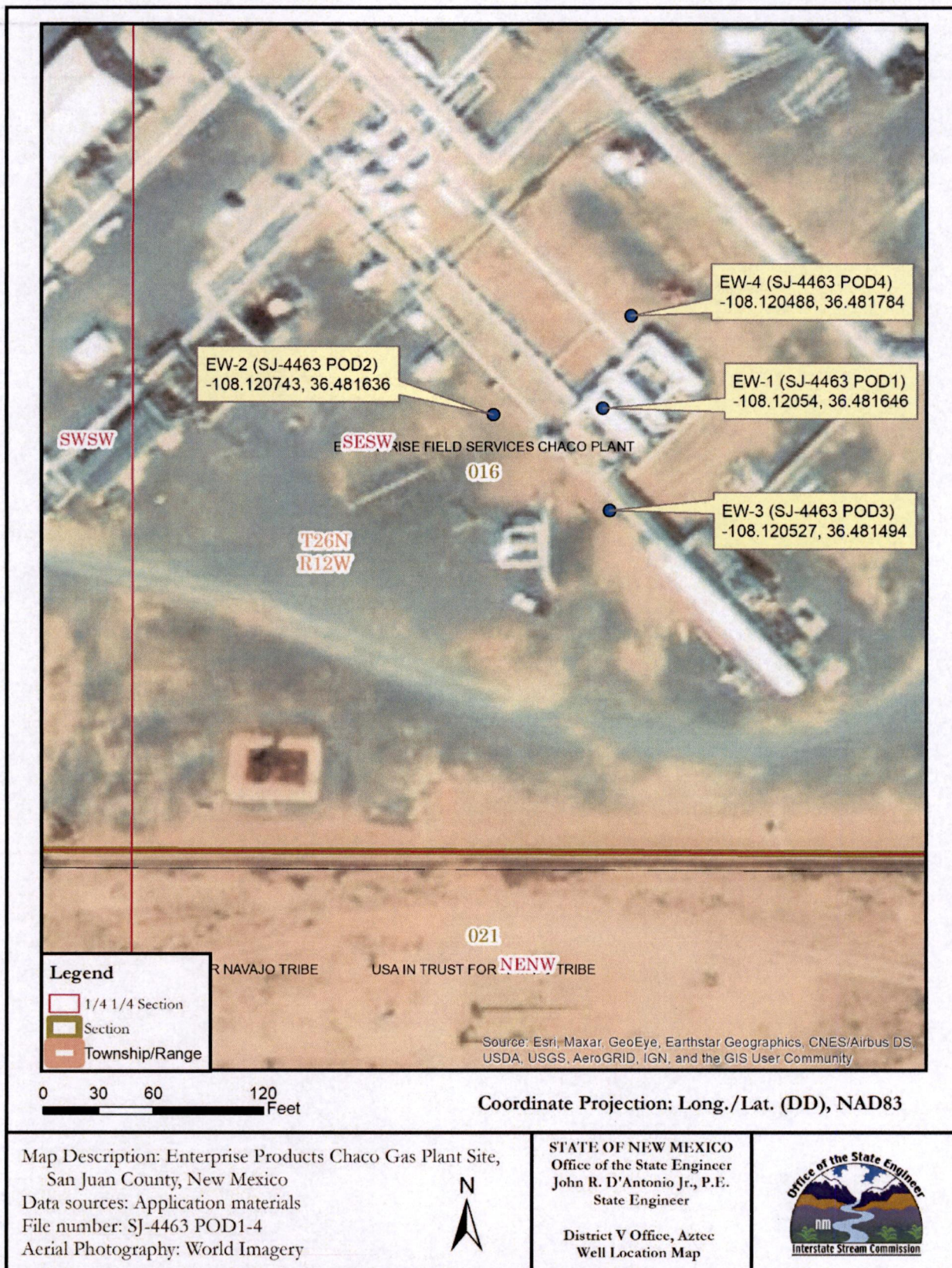

Miles Juett, Assistant Watermaster
District V Office, Water Rights Division

NMOSE Permit to Drill a Well(s) With No Water Right
Conditions of Approval

SJ-4463 POD1-POD4

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May 20, 2021

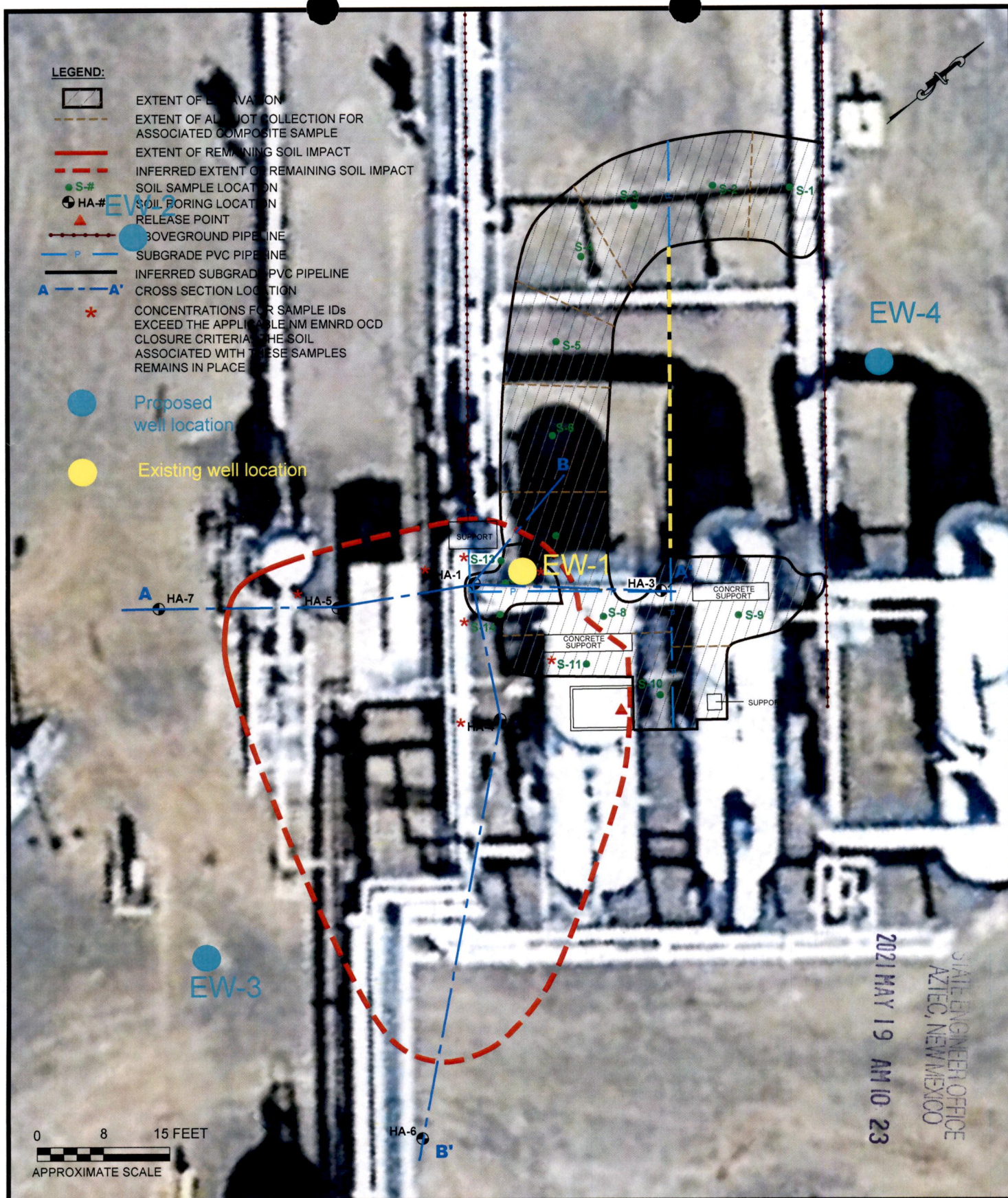


POD Number	Well Number (if Known)	Existing, New, or Proposed	X or Easting or Longitude:	Y or Northing or Latitude:	Public Land Survey System (PLSS)	Well Diameter (inches)	Approximate Well Depth (feet)	Approximate Depth to Water (feet)	Driller	Driller #	Comments
SJ-4463 POD1	EW-1	Existing	-108.120540	36.481646	SE 1/4 of SW 1/4, S16 T26N R12W	2	18.5	16	NA	NA	
SJ-4463 POD2	EW-2	Proposed	-108.120743	36.481636	SE 1/4 of SW 1/4, S16 T26N R12W	2	20	16	Enviro-Drill Inc	WD-1186	
SJ-4463 POD3	EW-3	Proposed	-108.120527	36.481494	SE 1/4 of SW 1/4, S16 T26N R12W	2	20	16	Enviro-Drill Inc	WD-1186	
SJ-4463 POD4	EW-4	Proposed	-108.120488	36.481784	SE 1/4 of SW 1/4, S16 T26N R12W	2	20	16	Enviro-Drill Inc	WD-1186	

OSE File No. SJ-4463 POD1-POD4
 "Attachment" for Section 2 of Application approved
 5-21-2021.

2021 MAY 19 AM 10:23

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO



OSE File No. SJ-4463 POD1-4



Environmental & Hydrogeologic Consultants

AERIAL MAP WITH PROPOSED WELL LOCATIONS

CHACO PLANT 3 PHASE SEPARATOR (7/22/20)

SW $\frac{1}{4}$, S 16 T26N R12W

SAN JUAN COUNTY, NEW MEXICO

36.461637 North, 108.120470 West

PROJECT NUMBER: 05A1226115

FIGURE**1**

OSE File No. SJ-4463 POD1-4

Monitoring:

- **Include the reason for the monitoring well.**

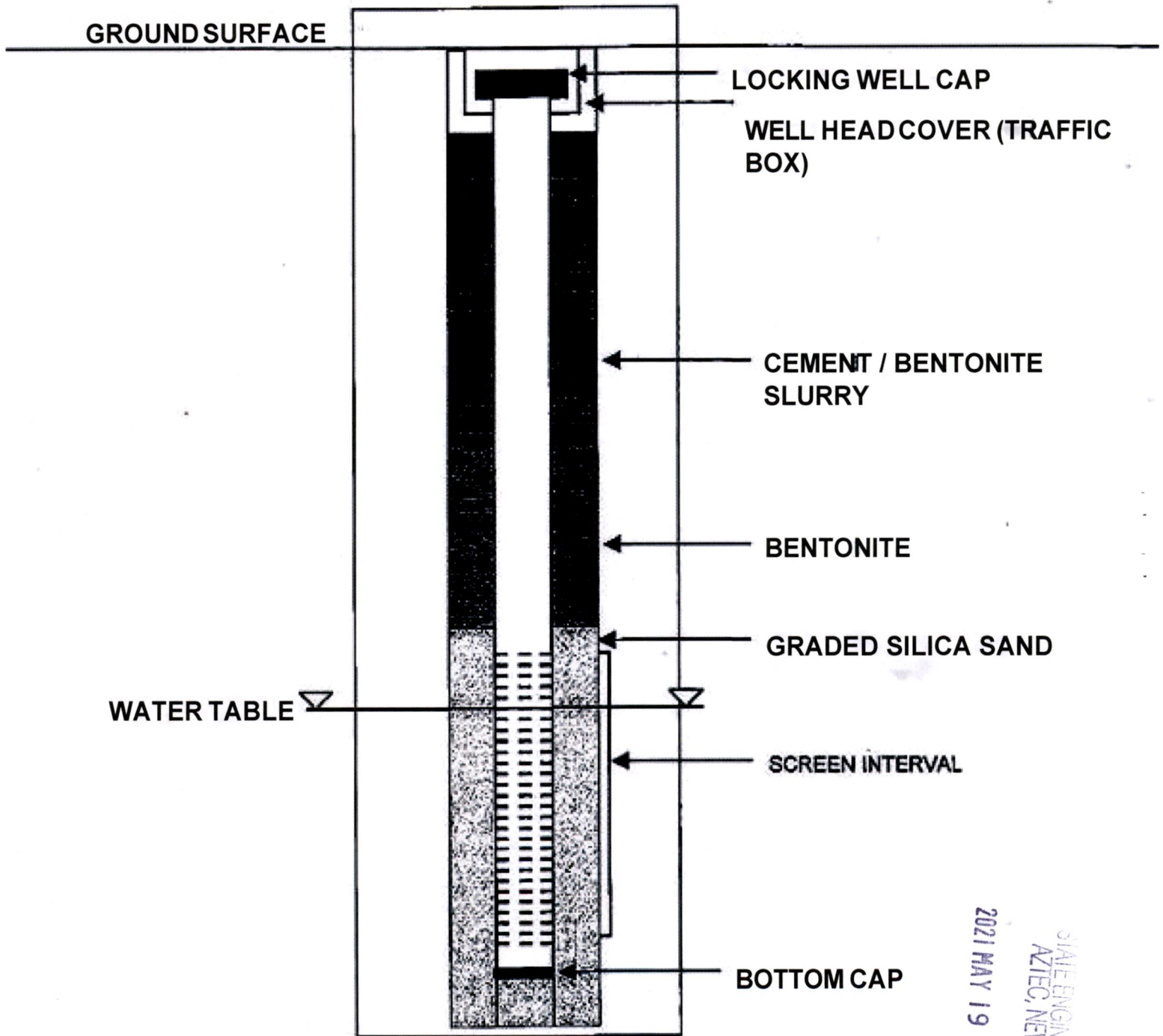
Monitoring events will be conducted at the site to evaluate constituent of concern (COC) concentrations in the groundwater over time. Low flow or bailer sampling method will be utilized to sample the wells, resulting in minimal water removal.

- **The duration of the planned monitoring.**

Monitoring will occur until the site is fully remediated.

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2021 MAY 19 AM 10:23

OSE File No. SJ-4463 POD1-4



NOT TO SCALE

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2021 MAY 19 AM 10:23



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
AZTEC

John R. D'Antonio, Jr., P.E.
State Engineer

100 Gossett Drive, Suite A
Aztec, New Mexico 87410

May 21, 2021

Enterprise Products Company
Attn: Thomas Long
614 Reilly Ave.
Farmington, New Mexico 87401

RE: Permit Approval for Monitoring Wells, SJ-4463 POD1-POD4; Enterprise Field Services Chaco Gas Plant, 3 Phase Separator Site Investigation for Constitution of Concern Concentrations in Groundwater, San Juan County, New Mexico

Dear Mr. Long:

On May 19, 2021, the New Mexico Office of the State Engineer received an application for a permit for the drilling and use of four proposed new monitoring wells including the replacement of an unpermitted temporary monitoring well, with a permanent monitoring well at the above referenced location. Enclosed is a copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page and in the attached Conditions of Approval. A receipt for the fees paid is also attached.

Please be aware that there are deadlines to submit well records for the newly installed monitoring wells. These deadlines can be found in the attached Conditions of Approval. A standardized plugging method has also been included in the Conditions of Approval for the future abandonment of the wells covered by this permit. This eliminates the need to submit a separate Well Plugging Plan of Operations for approval by the NMOSE prior to plugging, unless an alternate plugging method is proposed, required by a separate oversight agency, necessary due to incompatibility with actual conditions, or artesian conditions are encountered. The well and plugging records should be sent to the NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410.

If you have any questions regarding this permitting action, please contact me at (505) 383-4571.

Sincerely,

Miles Juett
Assistant Watermaster
Water Rights Division – District V

Enclosures

cc: Aztec Reading (w/o enclosures)
SJ-4463 File ✓
WATERS

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE

OFFICIAL RECEIPT NUMBER: 5 - **6808** DATE: 5-19-21 FILE NO.: SS-4463 POD 1-4

TOTAL: 20.00 RECEIVED: twenty DOLLARS ☒ CASH: ☐ CHECK NO.: 1527

PAYOR: Kyle Summers ADDRESS: 791 Rd 3000

CITY: Aztec STATE: NM ZIP: 87410 RECEIVED BY: MS

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; **yellow** copy remains in district office; and **goldentrod** copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

A. Ground Water Filing Fees

1.	Change of Ownership of Water Right	\$ 2.00
2.	Application to Appropriate or Supplement Domestic 72-12-1 Well	\$ 125.00
3.	Application to Repair or Deepen 72-12-1 Well	\$ 75.00
4.	Application for Replacement 72-12-1 Well	\$ 75.00
5.	Application to Change Purpose of Use 72-12-1 Well	\$ 75.00
6.	Application for Stock Well/Temp. Use	\$ 5.00
7.	Application to Appropriate Irrigation, Municipal, or Commercial Use	\$ 25.00
8.	Declaration of Water Right	\$ 1.00
9.	Application for Supplemental Non 72-12-1 Well	\$ 25.00
10.	Application to Change Place or Purpose of Use Non 72-12-1 Well	\$ 25.00
11.	Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	\$ 50.00
12.	Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water	\$ 50.00
13.	Application to Change Point of Diversion of Non 72-12-1 Well	\$ 25.00
14.	Application to Repair or Deepen Non 72-12-1 Well	\$ 5.00
15.	Application for Test, Expl. Observ. Well	\$ 5.00
16.	Application for Extension of Time	\$ 25.00
17.	Proof of Application to Beneficial Use	\$ 25.00
18.	Notice of Intent to Appropriate	\$ 25.00

B. Surface Water Filing Fees

1.	Change of Ownership of a Water Right	\$ 5.00
2.	Declaration of Water Right	\$ 10.00
3.	Amended Declaration	\$ 25.00
4.	Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water	\$ 200.00
5.	Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	\$ 200.00
6.	Application to Change Point of Diversion	\$ 100.00
7.	Application to Change Place and/or Purpose of Use	\$ 100.00
8.	Application to Appropriate	\$ 25.00
9.	Notice of Intent to Appropriate	\$ 25.00
10.	Application for Extension of Time	\$ 50.00
11.	Supplemental Well to a Surface Right	\$ 100.00
12.	Return Flow Credit	\$ 100.00
13.	Proof of Completion of Works	\$ 25.00
14.	Proof of Application of Water to Beneficial Use	\$ 25.00
15.	Water Development Plan	\$ 100.00
16.	Declaration of Livestock Water Impoundment	\$ 10.00
17.	Application for Livestock Water Impoundment	\$ 10.00

C. Well Driller Fees

1.	Application for Well Driller's License	\$ 50.00
2.	Application for Renewal of Well Driller's License	\$ 50.00

D. Reproduction of Documents

—	@ 25¢/copy	\$
—	Map(s)	\$

E. Certification

—		\$
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F. *Credit Card Convenience Fee

—		\$
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G. Other

—		\$
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Comments:

- 4 new MWs @ Chaco
Plant, Enterprise Products
(applicant)

All fees are non-refundable.

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 255803

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 255803
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	None	9/18/2023