

# C-147 REGISTRATION PACKAGE

**Nageezi Unit B02 AST Pad**  
**Recycling Containment and Recycling Facility**

December 2024



## ENDURING RESOURCES IV, LLC

---

**DJR Operating, LLC A Subsidiary Company of Enduring Resource, LLC**

**200 Energy Court  
Farmington, New Mexico 87401  
Phone: (505) 636-9720**

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-147  
Revised April 3, 2017

## Recycling Facility and/or Recycling Containment

**Type of Facility:** ☒ Recycling Facility ☒ Recycling Containment\*  
**Type of action:** ☒ Permit ☒ Registration  
☐ Modification ☐ Extension  
☐ Closure ☐ Other (explain) \_\_\_\_\_

\* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.

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: DJR Operating, LLC (For multiple operators attach page with information) OGRID #: 371838  
Address: 200 Energy Court, Farmington, New Mexico 87401  
Facility or well name (include API# if associated with a well): Nageezi Unit B02 AST Pad  
OCD Permit Number: 3RF-84 (For new facilities the permit number will be assigned by the district office)  
U/L or Qtr/Qtr L1 Section 2 Township 23N Range 09W County: San Juan  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.  
☒ **Recycling Facility:**  
Location of recycling facility (if applicable): Latitude 36.262792 Longitude -107.753273 NAD83  
Proposed Use: ☒ Drilling\* ☒ Completion\* ☒ Production\* ☐ Plugging \*  
*\*The re-use of produced water may NOT be used until fresh water zones are cased and cemented*  
☐ Other, *requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.*  
☒ Fluid Storage  
☒ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type \_\_\_\_\_  
☐ Activity permitted under 19.15.36 NMAC explain type: \_\_\_\_\_ ☐ Other explain \_\_\_\_\_  
☐ For multiple or additional recycling containments, attach design and location information of each containment  
☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date: \_\_\_\_\_

3.  
☒ **Recycling Containment:**  
☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)  
Center of Recycling Containment (if applicable): Latitude 36.262792 Longitude -107.753273 NAD83  
☐ For multiple or additional recycling containments, attach design and location information of each containment  
☒ Lined ☐ Liner type: Thickness 40 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☒ String-Reinforced  
Liner Seams: ☒ Welded ☒ Factory ☐ Other \_\_\_\_\_ Volume: 43,000 bbl Dimensions: Diameter 162' 4" x Height 12'  
☐ Recycling Containment Closure Completion Date: \_\_\_\_\_

4.

**Bonding:**

- ☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or operated by the owners of the containment.)
- ☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ \_\_\_\_\_ (work on these facilities cannot commence until bonding amounts are approved)
- ☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

**Fencing:**

- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate. Please specify See variance request in registration package Exhibit H

6.

**Signs:**

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

7.

**Variances:**

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

***Check the below box only if a variance is requested:***

- ☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

**If a Variance is requested, it must be approved prior to implementation.**

8.

**Siting Criteria for Recycling Containment**

**Instructions:** The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

**General siting**

Ground water is less than 50 feet below the bottom of the Recycling Containment. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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. - Written confirmation or verification from the municipality; written approval obtained from the municipality	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

9.

**Recycling Facility and/or Containment Checklist:**

**Instructions:** Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☒ Design Plan - based upon the appropriate requirements. – **Section 3 of the C-147 Registration Package**  
☒ Operating and Maintenance Plan - based upon the appropriate requirements. - **Section 4 of the C-147 Registration Package**  
☒ Closure Plan - based upon the appropriate requirements. - **Section 5 of the C-147 Registration Package**  
☒ Site Specific Groundwater Data – **Exhibit D of the C-147 Registration Package**  
☒ Siting Criteria Compliance Demonstrations – **Section 2 of the C-147 Registration Package**  
☒ Certify that notice of the C-147 (only) has been sent to the surface owner(s) – **C-147 package is being submitted concurrently to the Division and BLM FFO. See Exhibit C of the C-147 Registration Package for additional surface owner notification.**

10.

**Operator Application Certification:**

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

Name (Print): Heather Huntington Title: Permitting Technician  
 Signature: Heather Huntington Date: 12/31/24  
 e-mail address: hhuntington@enduringresources.com Telephone: 505-636-9751

11.

OCD Representative Signature: Victoria Venegas Approval Date: 01/06/2025  
 Title: Environmental Specialist OCD Permit Number: 3RF-84

- ☐ OCD Conditions \_\_\_\_\_  
☒ Additional OCD Conditions on Attachment



TABLE OF CONTENTS

1. INTRODUCTION .....1

2. SITING CRITERIA.....2

3. DESIGN AND CONSTRUCTION SPECIFICATIONS .....4

4. MAINTENANCE AND OPERATING PLAN .....5

5. CLOSURE PLAN .....6

EXHIBIT A. PLAT .....A

EXHIBIT B. RECYCLING FACILITY AND RECYCLING CONTAINMENT SITE DIAGRAM .....B

EXHIBIT C. SURFACE OWNER NOTIFICATION .....C

EXHIBIT D. GROUND WATER REPORT .....D

EXHIBIT E. SITING CRITERIA MAPS .....E

EXHIBIT F. AQUATIC RESOURCES DELINEATION TECHNICAL MEMORANDUM .....F

EXHIBIT G. MANUFACTURE SPECIFICATION .....G

EXHIBIT H. VARIANCE REQUESTS .....H

# 1. INTRODUCTION

Applicant	DJR Operating, LLC - Enduring Resources, LLC & DJR Operating, LLC are wholly owned subsidiaries of Enduring Resources IV, LLC. Leases, rights of ways, wells, and other property interests will continue to be held in their current entity names.
OGRID	371838
Project Name	Nageezi Unit B02 AST Pad Recycling Containment and Recycling Facility
Project Type	Recycling Facility & Recycling Containment
Legal Location	Lot 1 of Section 2, Township 23N, Range 09W
Surface Owner	Federal surface managed by the Bureau of Land Management Farmington Field Office

In accordance with 19.15.34 NMAC, DJR Operating, LLC (DJR) a subsidiary company of Enduring Resources IV, LLC requests registration of their Nageezi Unit B02 AST Pad (NU B02 AST Pad) Recycling Containment and Recycling Facility through the approval of this C-147 registration and permit package.

The recycling containment will consist of one 43,000 barrel (bbl) above ground storage tank (AST). Per 19.15.34.7 B. NMAC a ***“Recycling containment”*** is a storage containment which incorporates a synthetic liner as the primary and secondary containment device and is used solely in conjunction with a recycling facility for the storage, treatment or recycling of produced water only for the purpose of drilling, completion, production or plugging of wells used in connection with the development of oil or gas or both. This AST containment falls within this definition and must meet all applicable requirements of a Recycling Containment in Rule 19.15.34 NMAC.

The recycling facility will consist of up to thirty 400 bbl vertical frac tanks with a consolidated volume of 12,000 bbls to treat (mechanical and chemical reconditioning process) produced water for reuse. DJR will only set as many tanks that are anticipated to be needed based on incoming volumes and extent of treatment necessary. As defined in 19.15.34.7 A. NMAC a ***“Recycling facility”*** is a stationary or portable facility used exclusively for the treatment, re-use or recycling of produced water. A recycling facility does not include oilfield equipment such as separators, heater treaters and scrubbers in which produced water may be used. These tanks will be used as upright gun barrel oil water separators. This oil separation process will prevent having any visible layer of oil on the surface of the recycling containment in accordance with Rule 19.15.34.13 B.(1).

Per 19.15.34.9 A. water (produced water and Entrada water) stored/processed through this temporary recycling facility and containment will be used as part of a permitted operation for drilling, completing, and producing DJR Operating, LLC and Enduring Resources, LLC wells.

See Exhibit A for site survey plat and Exhibit B for a site diagram of the proposed AST and recycling facility layout. This facility will not be used for the disposal of produced water.

The NU B02 AST Pad is located at 36.262792 ° N, -107.753273 ° W, within Section 2, Township 23N, Range 09W, in San Juan County, New Mexico. The site is located on federal lands managed by the Bureau of Land Management Farmington Field Office (BLM FFO). DJR is the operator of the applicable oil and gas mineral rights at this location.

BLM FFO has been notified and approved of this site for water storage and water recycling. This AST pad was planned as associated infrastructure to DJR's Nageezi Unit B02-2309 well pad project and permitted via five approved Applications for Permit to Drill from this location. See Exhibit C, approved Form 3160-3 Application for Permit to Drill or Reenter for the Nageezi Unit 305H (30-045-38201) one of the five approved APDs detailing use of this AST pad. Additionally, per New Mexico Oil Conservation Division (NMOCD) Form C-147, DJR will provide A copy of this registration package to the BLM FFO concurrently with the submittal to the division.

## C-147 Registration Package

This document provides supplemental information to NMOCD Form C-147 that is required for registration, including siting criteria and demonstrations, design and construction plan, operating and maintenance plan, closure plan, closure and site reclamation requirements, and surface owner notification.

Upon approval of this registration, the recycling containment located at this facility will be operated for up to five years.

If the AST containment is found to be needed beyond five years, DJR will submit annual extensions to NMOCD on Form C-147 at least 30 days prior to expiration. The extension request will include a summary of all monthly inspections of the containment, including monitoring of the leak detection system indicating that the containment's integrity has not been compromised.

## 2. SITING CRITERIA

### 2.1. Depth to Groundwater 19.15.34.11 A.(1)

Per 19.15.34.11 B. NMAC, DJR requests use of multiple ground water determination sources in the surrounding area. These sources are listed below.

Source Name	Type of Well	Location	Elevation	Well Depth	Water Depth	Distance to NU WSW Pad	Elevation at NU WSW Pad
SJ04587 POD 1	Water Well – Livestock Watering	NE ¼ of the SW ¼ of Sec 25, T24N, R09W	6758' AMSL	800	640'	1.52 miles Northeast	6977' AMSL
POD SJ00001	Water Well - Industrial Use	SE ¼, NW ¼, NE ¼, Sec 1, T23N, R09W	6957' AMSL	695'	630'	1.47 miles Southeast	6977' AMSL
Unidentified Well in National Hydrologic Data but not OSE Recorded	Water Well – The well was field verified but found to be inoperable	L8, Sec 1, T23N, R09W	6957' AMSL	Not Documented	Not Documented	4,600 feet East-Southeast	6977' AMSL

With the proposed containment being an AST sitting above ground level, the groundwater depth is greater than 50 feet below the bottom of the recycling containment. See Exhibit D for the well records for the aforementioned wells supporting this determination.

Additional average depth to ground water information can be found below.

Average, Minimum, and Maximum depth to ground water within T24N R09W = 742', 515', 1073'

Average, Minimum, and Maximum depth to ground water within T23N R09W = 3516', 173', 6830'

### 2.2. Distance to Surface Water 19.15.34.11 A.(2)

There are no continuously flowing watercourses within 300 feet; nor, any lakebeds, sinkholes, or playa lakes within 200 feet of the proposed AST as shown in Exhibit E Map 2. Additionally, there are no significant drainages within 200' of the proposed AST.

DJR contracted Barr Engineering Co. (Barr) in December of 2024 to assess all surrounding drainages per 19.15.34.11 A.(2) NMAC. In the report provided to DJR, Barr Summarized the following. This report is attached hereto as Exhibit F:

*Based on the regulatory framework (Section 1), evaluation of the survey area, and the USACE Albuquerque District's current policies regarding jurisdictional determinations, it is Barr's professional opinion that under the current CWA rule, there are no features present in the survey area that would be considered jurisdictional WOTUS.*

*Pursuant to 19.15.34 NMAC, no drainages with an OHWM were observed within 200 feet of the Nageezi B02 AST pad. No FEMA 100-year flood zones are in the survey area. These conclusions are based on Barr's professional opinion.*

**2.3. Distance to Structures 19.15.34.11 A.(3)**

The recycling facility/containment is not located within 1,000 feet of a permanent residence, school, hospital, institution, or church in existence at the time of this application. As shown on the aerial map in Exhibit E Map 2, there are no permanent residences, schools, hospitals, institutions, or churches within the 1000-foot buffer ring of the pad. A field visit verified there has been no new structure erected since the aerial imagery was obtained.

**2.4. Distance to Non-Public Water Supply and Springs 19.15.34.11 A.(4)**

The recycling facility/containment is not located within 500 horizontal feet of a spring or fresh water well used for domestic or stock watering purposes in existence at the time of this application as shown on Exhibit E Map 1 and 2. Map 1 shows wells and springs/seeps regardless of use type in the surrounding area and Map 2 shows that no water wells, springs, or seeps are located within the 500-foot buffer of the pad. The nearest fresh water well according to New Mexico Office of the State Engineer (NM-OSE) for domestic or stock water use is referenced above in subsection 2.1 at 1.52 miles away. Nearest spring/seep according to the National Hydrologic Dataset (NHD) is 1.95 miles Southwest.

**2.5. Distance to Municipal Boundaries and Defined Municipal Fresh Water Well Fields 19.15.34.11 A.(5)**

The recycling facility is not within any incorporated municipal boundaries nor within a defined municipal fresh water well field covered by a municipal ordinance adopted pursuant to Section 3- 27-3 NMSA 1978, as amended. Please see Exhibit E Map 1 showing the nearest municipal boundary being Bloomfield New Mexico approximately 32 miles Northwest.

**2.6. Distance to Wetland 19.15.34.11 A.(6)**

The recycling facility/containment is not located within 500 feet of a wetland as seen in Exhibit E Map 2 and additional evidence provided in Exhibit F.

Upon field investigation it was determined that there were no hydric soils or hydrophytes indicative of wetland habitat. Nor was there cottonwood, willow, elm, invasive salt cedar or russian olive trees indicative of riparian habitat. Nearby drainages have no defined bed and bank and no isolated pockets or pools to hold water.

**2.7. Distance to Subsurface Mines 19.15.34.11 A.(7)**

According to New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Mining and Minerals Divisions database, there are no subsurface mines in Township 23N, Range 9W, San Juan County, New Mexico. See Exhibit E Map 1 showing mines regardless of status near the project area. The nearest EMNRD recorded permit (being a withdrawn permit) is a Humate pit approximately 18.75 miles south-southeast.

**2.8. Site Stability 19.15.34.11 A.(8)**

The recycling containment is not located in an unstable area. DJR's construction practices provide adequate compaction of the pad surface for the anticipated load of the recycling facility and AST containment.

The following additional best management practices were implemented during pad construction to prevent equipment settling and ensure site stability.

- Prior to earthwork, all trees (if applicable) and slash/brush, was mulched and incorporated into the topsoil. Tree roots and trucks were removed from the site. The topsoil (vegetative root layer) and mulched organic matter was stripped from location and windrowed along the perimeter of location. Topsoil was not used for pad construction as the organic matter mixed within the soil prevents adequate compaction.
- Subsoil horizons were utilized to construct a balanced (high areas are cut and used to fill low areas) location. Fill slopes were deposited and compacted in approximate 6-inch lifts with optimal soil moisture content.
- No soil deemed too wet from inclement weather was utilized for construction as adequate compaction cannot be achieved. Additionally, if construction occurred during winter months, the frost layer if applicable was stripped and sub frost line soil horizons were utilized for construction to achieve adequate compaction that will not settle with warming temperatures.
- Cut and fill slopes around location are 3:1 or better to ensure surface and slope stability.
- The windrowed topsoil and any additional diversions found to be necessary are used to prevent surface sheet flow from entering location.
- The containment will have a properly constructed foundation consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear.

Other factors contributing to site stability include:

- Per 19.15.34.11 A.(7) the location is not in an area overlying a subsurface mine according to the New Mexico EMNRD Mining and Minerals Divisions database.
- This area of New Mexico is not known for underlying caves and karst features.

## **2.9. Distance to 100-Year Floodplain 19.15.34.11 A.(9)**

The recycling facility/containment is not located within a 100-year (1% annual) floodplain. As shown in Exhibit E Map 2, the project is in Zone X (area of minimal flood hazard). The nearest 100-year flood hazard area shown in Exhibit E Map 2 is 7,400 feet West-Southwest.

## **3. DESIGN AND CONSTRUCTION SPECIFICATIONS**

Pursuant to 19.15.34.12 NMAC, the following Design Plan presents the minimum standards and specifications for the design and construction of the proposed recycling containment at the NU B02 AST Pad. The facility and recycling containment have been designed to prevent release and potential overtopping due to wave action (by wind) or rainfall. To supplement the information provided below, the manufacturers specifications for the design and construction of the aboveground containment are provided as Exhibit G.

### **3.1. Foundation Construction**

The containment AST will be constructed on DJR's existing Nageezi Unit B02 AST Pad. The AST footprint will have a properly constructed foundation consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. The containment will ensure confinement of produced water, to prevent releases and to prevent overtopping due to wave action or rainfall. Geotextile is used under the liner to reduce localized stress-strain or protuberances that otherwise may compromise the liner's integrity. The containment is above ground and is not subject to water run-on.

### **3.2. Liner and Leak Detection**

The containment will be Well Water Solutions and Rentals, Inc. double-lined frac water tank system. These tank systems are designed to incorporate a 40-mil thickness LLDPE primary (upper) string-reinforced liner and a 30-mil LLDPE secondary (lower) string-reinforced liner. The primary liner is designed to be impervious, synthetic material that will resist deterioration by ultraviolet light, petroleum hydrocarbons, salt solutions, and acidic/alkaline solutions. Liners meet or exceed the compatibility requirements of EPA SW-846 Method 9090A. Steel bolts secure the liners to the top of the AST tank. Specifications provided by Well Water Solutions and Rentals, Inc. are attached as Exhibit G.

C-147 Registration Package

---

Liner seams are minimized and are oriented vertically up and down the containment walls, not horizontally across the containment. Factory welded seams are incorporated, where possible. Field seams, welding, and testing on the geosynthetic liners is performed by a manufacturer qualified person. For any field welded seams, liners will overlap 4 to 6 inches and be thermally sealed. Field seams are avoided or minimized in corners and irregularly shaped areas.

At a points of discharge into, or suction from, the recycling containment, the liner is protected from excessive hydrostatic force or mechanical damage. External discharge or suction lines do not penetrate the liners.

A leak detection system is installed between the upper and lower liners of the containment and consists of a 200-mil geonet drainage layer. The leak detection system covers the bottom and sides of the containment and includes a minimum of 3 feet of freeboard. A 6-inch PVC pipe is inserted in the sump at the bottom of the containment and between the liners. Each containment is slightly sloped, with the sump placed at the location with the lowest elevation to facilitate the earliest possible leak detection. A schematic of the leak detection system is included in Exhibit G.

The sump piping is checked weekly with a water-level meter to determine if leakage is occurring through the primary liner. If water is detected in the leak detection sump, water will be removed to assess if water returns indicating a leak in the primary liner. Controls for surface water run-on is not needed due to the containment being above ground level.

**3.3. Signage**

The facility will have a sign no less than 12" by 24" with lettering not less than 2" in height in a conspicuous place near the facility entrance. The sign will contain the operator's name, location of the facility by quarter-quarter or unit letter, Section, Township, Range, and emergency phone numbers.

**3.4. Entrance Protection**

Please see variance request attached as Exhibit H.

With the recycling containment being an AST with 12-foot wall height, entrance to containment would have to be intentional. There is no risk of accidental entrance into the containment by wildlife or the public. The site will be maintained to prevent harm to wildlife and the public.

**3.5. Netting**

DJR will install bird netting provided by the tank manufacturer over the containment. The netting will be inspected monthly for disrepair. The containment will be inspected weekly for dead migratory birds. DJR will report dead migratory birds and/or other wildlife to the appropriate wildlife agency, surface management agency, and NMOCD.

---

**4. MAINTENANCE AND OPERATING PLAN**

---

**4.1. Inspection Timing and Maintenance**

Pursuant to 19.15.34.13 NMAC, DJR will follow the maintenance and operational requirements described below. At a minimum, DJR will perform weekly inspections on the containment and leak detection system while the containment holds fluid. DJR will maintain records and make them available for review by the NMOCD.

- If fluids are found in the sump, the fluids will be sampled and then pumped out.
- DJR will remove any visible oil from the surface of the containment upon discovery.
- DJR will maintain a minimum of three feet of freeboard in the containment at all times.
- The injection and withdrawal of fluids from the containment shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.
- If a leak is discovered in the containments' primary liner above the liquid level in the containment, DJR will repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.



## C-147 Registration Package

- If a leak is discovered in the containments' primary liner below the liquid level in the containment, DJR will notify the division office of the leak, remove all fluids above the leak level, and repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.
- The facility will be operated in such a way to prevent the collection of surface water.
- An oil absorbent boom or other device will be onsite to contain an unanticipated release.
- The facility will not be used for the storage or discharge of hazardous waste.

#### 4.2. Reporting and Record Keeping

During operation of the recycling facility, DJR will keep accurate records and report monthly to the NMOCD the total volume of water received for recycling, with the volume of fresh water received listed separately, and the total volume of water leaving the facility for disposition of use. Water volume totals will be submitted on NMOCD Form C-148. Accurate records identifying the sources and disposition of recycled water will be maintained during the operation of the facility and made available for review to the NMOCD upon request.

#### 4.3. Cessation of Operations

DJR will consider the recycling containment to have ceased operations if less than 20% of the total fluid volume is used every six (6) months following the first withdrawal of produced water for use. DJR will report cessation of operations to the appropriate NMOCD district office. If additional time is needed for closure, DJR will request an extension from the appropriate NMOCD district office prior to the expiration of the initial six (6) month time period.

## 5. CLOSURE PLAN

Pursuant to 19.15.34.14 NMAC, the activities summarized below describe the closure and reclamation requirements for the NU B02 Staging Area. Within 60 days of closure completion, DJR will submit a closure report on NMOCD Form C-147 and include required attachments to document all closure activities, sampling results, and details on backfilling, capping, or covering, where applicable.

#### 5.1. Containment Closure

DJR will remove all fluids from the facility and containment within 60 days from the date that operations cease and close the containment from use within six months from the date that DJR ceases operations. Alternatively, DJR can request an extension for the removal of fluids from the NMOCD not to exceed an additional two months. DJR can also request an extension for the closure of the containment, not to exceed an additional six months.

DJR will remove all fluids, contents, synthetic liners, and leak detection piping and transfer these materials to an NMOCD-approved facility for disposal. All other equipment associated with the recycling containment and recycling facility will be removed from the site.

#### 5.2. Closure Soil Sampling

Once the containment is removed, DJR will test the soils beneath for contamination with a five-point composite sample which includes stained or wet soils, if any, and that sample shall be analyzed for the constituents listed in the following table:

TABLE 1. CONTAMINATED SOIL TEST CONSTITUENTS

Constituents	Test Method	Groundwater Depth 51 – 100 Feet	Groundwater Depth >100 Feet
Chloride	EPA 300.0	10,000 mg/kg	20,000 mg/kg
TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg	2,500 mg/kg
GRO + DRO	EPA SW-846 Method 8015M	1,000 mg/kg	1,000 mg/kg
BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg	50 mg/kg

## C-147 Registration Package

Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg	10 mg/kg
---------	-------------------------------------	----------	----------

If any contaminant concentration is higher than the parameter limits listed above, the NMOCD may require additional delineation upon review of the results and DJR must receive approval before proceeding with closure. If all contaminant concentrations are less than or equal to the parameter limits listed above, then DJR can proceed to backfill with non-waste containing, uncontaminated, earthen material.

**5.3. Reclamation**

The location will be reclaimed upon completion of use in accordance with the reclamation plan attached to the Nageezi Unit 305H approved APD. This reclamation plan was developed with, and approved by, the surface managing agency.

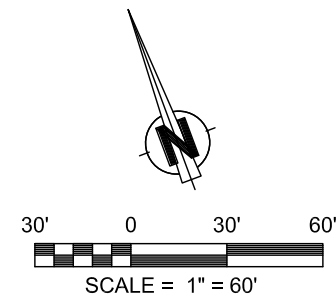


## **EXHIBIT A. PLAT**

A

**CENTER OF PAD**  
LATITUDE: 36.262792° N  
LONGITUDE: 107.753273° W  
DATUM: NAD83

**DJR OPERATING, LLC**  
**NAGEEZI UNIT B02-2309**  
**G-TANK PAD**  
LOCATED IN THE NE/4 NE/4 OF SECTION 2,  
T23N, R9W, N.M.P.M.,  
SAN JUAN COUNTY, NEW MEXICO  
FINISHED PAD ELEVATION: 6977.2', NAVD 88  
NU B02-2309



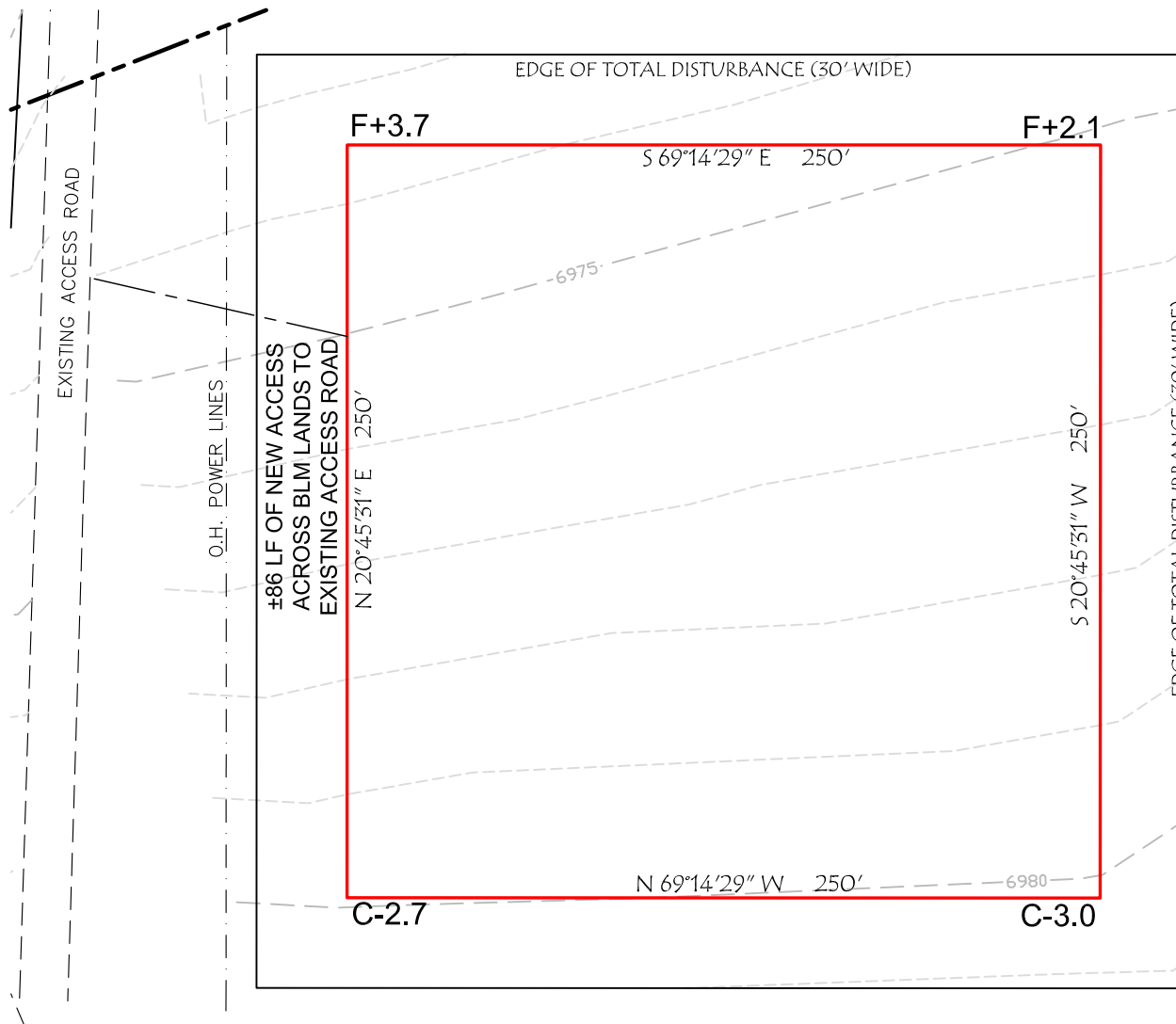
**NOTES:**

- 1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE NORTHEAST CORNER AND THE NORTH QUARTER CORNER OF SECTION 2, TOWNSHIP 23 NORTH, RANGE 9 WEST, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.  
LINE BEARS: S 89°26'01" W A DISTANCE OF 2596.57 FEET AS MEASURED BY G.P.S.
- 2.) LATITUDE, LONGITUDE AND ELLIPSOIDAL HEIGHT BASED ON AZTEC CORS L1 PHASE CENTER.  
DISTANCES SHOWN ARE GROUND DISTANCES USING A TRAVERSE MERCATOR PROJECTION FROM A WGS84 ELLIPSOID, CONVERTED TO NAD83.  
NAVD88 ELEVATIONS AS PREDICTED BY GEOID03.
- 3.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LWEST 48 HOURS PRIOR TO CONSTRUCTION.
- 4.) T-POSTS HAVE BEEN SET TO DEFINE THE EDGE OF DISTURBANCE LIMITS WHICH ARE 50' OFFSETS FROM THE EDGE OF THE STAKED WELL PAD.

SLOPES TO BE  
CONSTRUCTED TO MATCH  
THE ORIGINAL CONTOURS  
AS CLOSE AS POSSIBLE.

~ SURFACE OWNERSHIP ~
BUREAU OF LAND MANAGEMENT

**TOTAL PERMITTED AREA**  
**280' x 280' = 1.80 ACRES**  
**SCALE: 1" = 60'**  
**DATE: 11/01/19**  
**DRAWN BY: GRR**



**NOTE:**  
CHENAULT CONSULTING, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED, BURIED PIPELINES OR CABLES ON WELL PAD, IN CONSTRUCTION ZONE AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

**CCI**  
**CHENAULT CONSULTING INC.**  
4800 COLLEGE BLVD.  
SUITE 201  
FARMINGTON, NM 87402  
(505)-325-7707

## **EXHIBIT B. RECYCLING FACILITY AND RECYCLING CONTAINMENT SITE DIAGRAM**

B



**DJR Operating, LLC's Nageezi Unit B02 AST Pad Diagram for Use of One 43K BBL AST  
in Lot 1 of Section 2, T23N, R09W, NMPM San Juan County, New Mexico**



75'-0"

1" = 75' on 8.5 x 11 Actual Size



## **EXHIBIT C. SURFACE OWNER NOTIFICATION**

C

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.  9. API Well No. <div style="color: blue; font-weight: bold;">30-045-38201</div>
2. Name of Operator		10. Field and Pool, or Exploratory
3a. Address	3b. Phone No. (include area code)	11. Sec., T. R. M. or Blk. and Survey or Area
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		12. County or Parish
14. Distance in miles and direction from nearest town or post office*		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |   |   |
|---|---|
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)



## **EXHIBIT D. GROUND WATER REPORT**

D

English W. W. No. 1

(This form is to be executed in triplicate)

TN 220903

WELL RECORD

SJ-1  
Misc. 1-SJ-32  
Misc. 169

Date of Receipt November 17, 1953. Permit No.

Name of permittee, El Paso Natural Gas Company

Street or P. O. Box 997, City and State Farmington, N. M.

1. Well location and description: The shallow well is located in SE 1/4, NW 1/4, NE 1/4 of Section 1, Township 23N, Range 9W; Elevation of top of casing above sea level, 6838 feet; diameter of hole, 6 inches; total depth, 695 feet; depth to water upon completion, 630 feet; drilling was commenced 8-15 ?, 1952, and completed 8-22, 1952; name of drilling contractor; Address; Driller's License No.

2. Principal Water-bearing Strata:

	Depth in Feet		Thickness	Description of Water-bearing Formation
	From	To		
No. 1				
No. 2				
No. 3				
No. 4				
No. 5				

3. Casing Record:

Diameter in inches	Pounds per ft.	Threads per inch	Depth of Casing or Liner Top Bottom	Feet of Casing	Type of Shoe	Perforation From To
6				696		
4	Tubing			694		

4. If above construction replaces old well to be abandoned, give location: 1/4, 1/4, 1/4 of Section, Township, Range; name and address of plugging contractor, date of plugging, 19; describe how well was plugged:

STATE ENGINEER-Santa Fe, N. M.  
RECEIVED  
NOV 17 1953 PM  
1 2 3 4 5 6 7 8 9 10 11 12



[illegible]

**Licensed Well Driller**

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

Form WR-23

STATE ENGINEER OFFICE

English W. W. No. 1

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1


(A) Owner of well El Paso Natural Gas Company  
Street and Number Box 997  
City Farmington State N.M.  
Well was drilled under Permit No. Misc.1-SJ-1 and is located in the  
SE 1/4 NW 1/4 NE 1/4 of Section 1 Twp. 23N Rge. 9W  
(B) Drilling Contractor License No.  
Street and Number  
City State  
Drilling was commenced 8-15? 19 52  
Drilling was completed 8-22 19 52

(Plat of 640 acres)

Elevation at top of casing in feet above sea level 6838 Total depth of well 695  
State whether well is shallow or artesian Depth to water upon completion 630

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1				
2				
3				
4				
5				

Section 3

RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To
6					696			
4	Tubing				694			

Section 4

RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				
					STATE ENGINEER-Santa Fe, N.M.
					RECEIVED
					NOV 17 1953
					3:30PM

Section 5

PLUGGING RECORD

Name of Plugging Contractor License No.  
Street and Number City State  
Tons of Clay used Tons of Roughage used Type of roughage  
Plugging method used Date Plugged 19  
Plugging approved by: Cement Plugs were placed as follows:

Basin Supervisor

FOR USE OF STATE ENGINEER ONLY

Date Received

File No. Use Location No.

No.	Depth of Plug		No. of Sacks Used
	From	To	

## LOG OF WELL


The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

## Well Driller



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)		(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
50115	SJ 04587 POD1		2	3	25	24N	09W	253561	4018930 

Driller License:	1842	Driller Company:	MW ELECTRIC INC.
Driller Name:	STOTTS, CHADDD GLENNALL OFF		
Drill Start Date:	02/08/2024	Drill Finish Date:	03/05/2024
Log File Date:	03/13/2024	PCW Rev Date:	
Pump Type:		Pipe Discharge Size:	
Casing Size:	4.75	Depth Well:	800 feet
		Depth Water:	640 feet

Water Bearing Stratifications:		Top	Bottom	Description
		0	60	Shallow Alluvium/Basin Fill
		60	400	Shale/Mudstone/Siltstone
		400	500	Sandstone/Gravel/Conglomerate
		500	640	Sandstone/Gravel/Conglomerate
		640	670	Sandstone/Gravel/Conglomerate
		670	700	Sandstone/Gravel/Conglomerate
		700	800	Sandstone/Gravel/Conglomerate

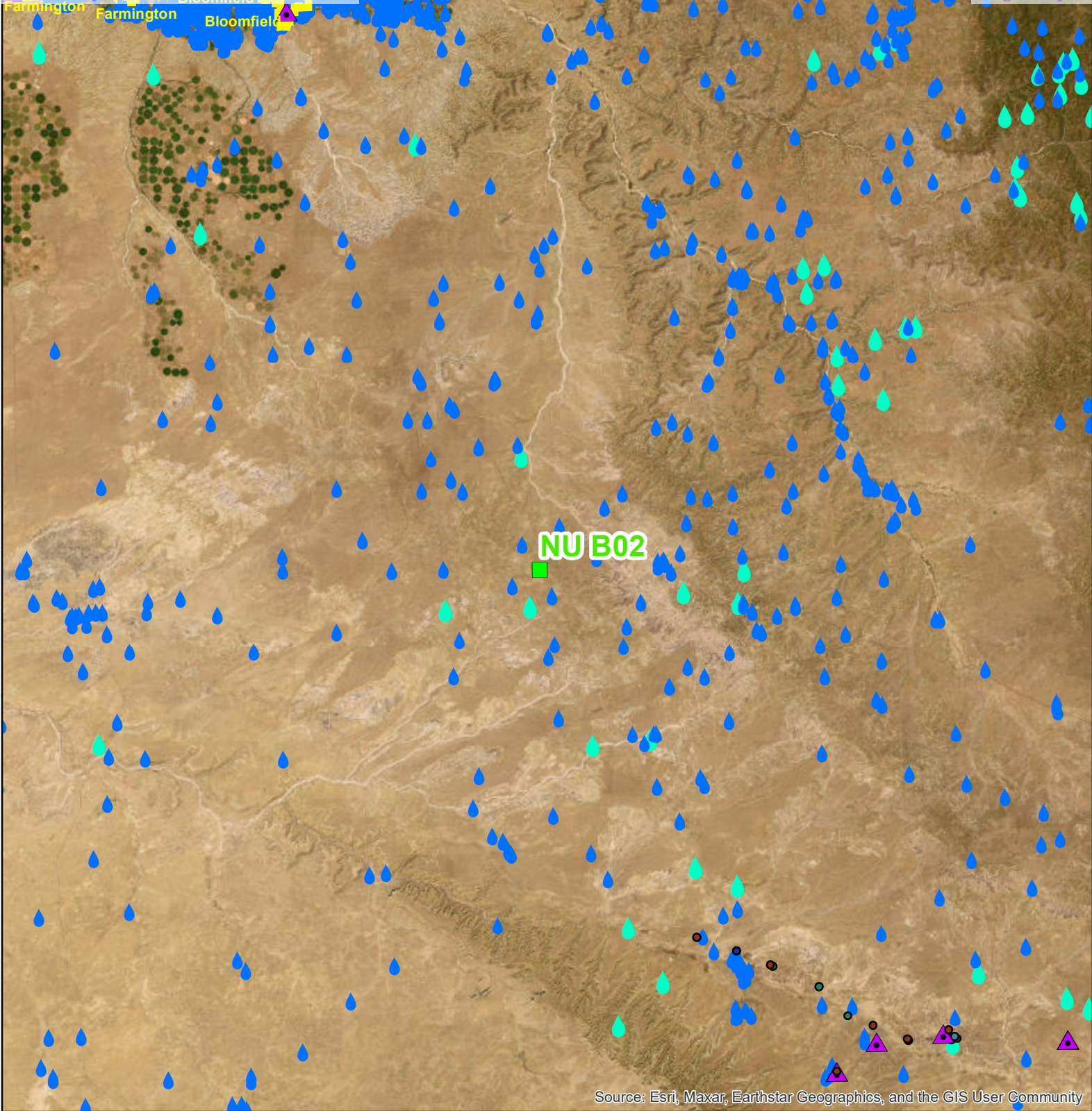
Casing Perforations:		Top	Bottom
		0	640
		640	670
		670	700
		700	800

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

## **EXHIBIT E. SITING CRITERIA MAPS**

E





## NU B02 Containment Location Map1 Siting Criteria

- |  |  |  |                                   |  |                      |
|--|--|--|-----------------------------------|--|----------------------|
|  | OSE Water Wells                          |  | Active Mining                     |  | No Response          |
|  | Spring Seep                              |  | Active Mining, Active Reclamation |  | Pending              |
|  | New_Mexico_incorporated_places_April2023 |  | Approved                          |  | Released             |
|  |  |  | Enforcement                       |  | Temporary Suspension |
|  |  |  | No Permit                         |  | Under Development    |



**ENDURING  
RESOURCES, LLC**



Data Source Statement:  
BLM-FFO, Enduring Resources GIS, ESRI Inc.,  
NCE Surveys, USGS

0 5 10 15 20 Miles

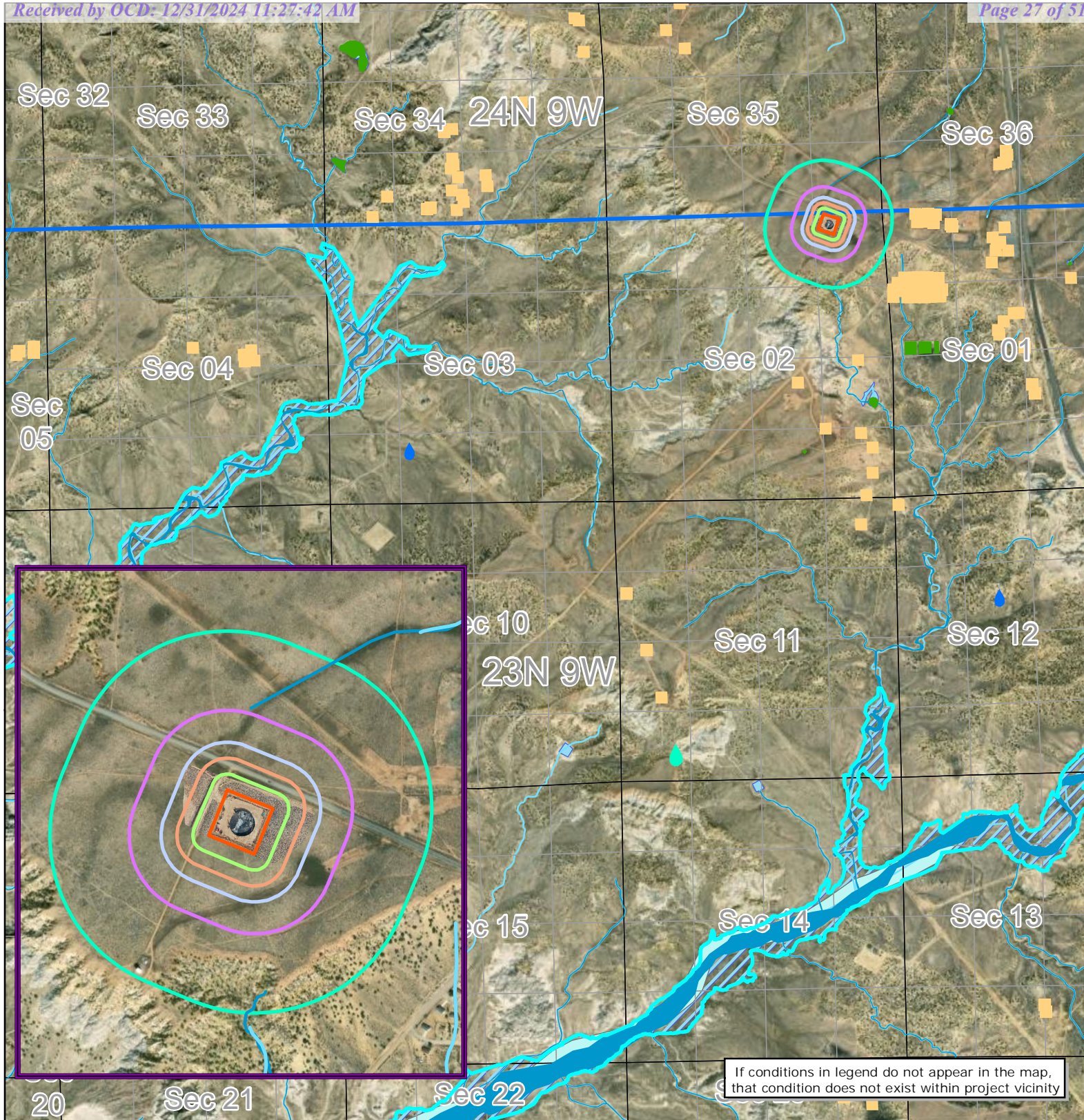
Released to Imaging: 1/6/2025 10:20:55 AM

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

Author: drogers

Date: 12/17/2024





If conditions in legend do not appear in the map, that condition does not exist within project vicinity

## NU B02 Containment Location Map 2

### Siting Criteria

- |                    |                                   |                            |
|--------------------|-----------------------------------|----------------------------|
| OSE Water Wells    | Active Mining                     | Marine                     |
| Spring Seep        | Active Mining, Active Reclamation | Estuary                    |
| Residence          | Approved                          | Marsh, Swamp, Bog, Prairie |
| NU B02 AST PAD     | Enforcement                       | Riverine                   |
| 100                | No Permit                         | Lake, Reservoir            |
| 200                | No Response                       | Wash                       |
| 300                | Pending                           | NHD Waterbody              |
| 500                | Released                          | FEMA High Risk Flood Zone  |
| 1000               | Temporary Suspension              |                            |
| USGS Water Courses | Under Development                 |                            |

0 1,250 2,500 3,750 5,000 Feet

Released to Imaging: 1/6/2025 10:20:55 AM



**ENDURING  
RESOURCES, LLC**



Data Source Statement:  
BLM-FFO, Enduring Resources GIS, ESRI Inc.,  
NCE Surveys, USGS

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

Author: drogers

Date: 12/26/2024



## **EXHIBIT F. AQUATIC RESOURCES DELINEATION TECHNICAL MEMORANDUM**

F





# Technical Memorandum

**To:** Casey Haga, Enduring Resources IV, LLC  
**From:** Joey Herring  
**Subject:** Aquatic Resources Delineation  
**Date:** December 12, 2024  
**Project:** Nageezi B02 AST Pad

Enduring Resources IV, LLC (Enduring) retained Barr Engineering Co. (Barr) to conduct an aquatic resources delineation survey for the Nageezi B02 aboveground storage tank (AST) pad located in the NE  $\frac{1}{4}$  NE  $\frac{1}{4}$ , Section 2, Township 23 North, Range 9 West, New Mexico Principal Meridian, San Juan County (Map 1). The pad would be 250 feet long and wide with a 30-foot-wide construction zone around the perimeter for a total disturbance of 2.2 acres. The center coordinates for the pad are 36.262792 N, -107.753273 W, North American Datum 1983 Zone 13N. The Nageezi B02 AST pad is located on Bureau of Land Management (BLM) Farmington Field Office (FFO) managed land. The survey area includes the Nageezi B02 AST pad, construction zone, and a 200-foot-wide buffer.

The purpose of the aquatic resources delineation survey was to identify the potential presence and extent of features that may be considered jurisdictional Waters of the United States (WOTUS) under Section 404 of the Clean Water Act (CWA), as amended (33 United States Code §1251 et seq.). The United States Army Corps of Engineers (USACE) administers the CWA Section 404. Enduring is applying for a permit to transport, store, and recycle produced water for reuse in drilling and completing oil/natural gas wells per Title 19, Chapter 15, Part 34 (19.15.34) of the New Mexico Administrative Code (NMAC).

This technical memorandum reports the survey findings and aquatic resources that may be considered jurisdictional WOTUS, including wetlands and aquatic resources exhibiting an ordinary high-water mark (OHWM) following the USACE methods and guidance.

## 1 Regulatory Framework

### 1.1 Federal

In September 2023, USACE issued a final rule revising the definition of WOTUS to include traditional navigable waters, wetlands adjacent to traditional navigable waters, and relatively permanent waters defined as tributaries and wetlands adjacent to navigable waters that have a continuous surface connection and standing or continuously flowing bodies of water (EPA 2024). The USACE defines wetlands as special aquatic sites "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (USACE 1987).

The USACE has the regulatory authority and discretion to determine the jurisdictional status of aquatic resources at a given site.

### 1.2 New Mexico State

19.15.34 NMAC applies to the transportation, disposal, recycling, reuse, or the direct surface or subsurface disposition by use of water produced or used in connection with the development or

To: Casey Haga, Enduring Resources IV, LLC  
From: Joey Herring  
Subject: Aquatic Resources Delineation  
Date: December 12, 2024  
Page: 2

---

production of oil or gas or both; in road construction or maintenance, or other construction; and in the generation of electricity or other industrial processes. 19.15.34 NMAC also applies to transporting drilling fluids and liquid oil field waste.

Depending on the proposed activity, a permit or registration (Form C-147) for recycling and reuse of produced water, drilling fluids, and liquid oil field waste, including recycling containment, is required by the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD). Form C-147 siting criteria require that recycling containment not be located:

- where groundwater is less than 50 feet below the bottom of the containment;
- 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 OHWM);
- within 500 feet of a spring or freshwater well used for domestic or stock watering purposes in existence at the time of the initial registration;
- within incorporated municipal boundaries or within a defined municipal freshwater well field covered by a municipal ordinance adopted under Section 3-27-3 New Mexico Statutes 1978, as amended, unless the municipality specifically approves the recycling containment in writing;
- within 500 feet of a wetland; or
- within a 100-year floodplain.

Watercourse is defined in 19.15.2.7 NMAC as “a river, creek, arroyo, canyon, draw or wash or other channel having definite banks and bed with visible evidence of the occasional flow of water.” Wetlands are defined in 19.15.2.7 NMAC as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico.” The term “significant” is not defined in NMAC.

## 2 Methods

Before initiating fieldwork, Barr completed a desktop evaluation of the survey area using the best available information, including the following:

- US Geological Survey (USGS) 7.5-minute topographic quadrangles for local and regional environmental settings relevant to the project area's surface waters, wetlands, and contours.
- National Hydrography Dataset (NHD) for mapped "bluelines"—perennial, intermittent, and ephemeral drainages—and other water features in the project area.
- National Wetlands Inventory (NWI) maps generated by the US Fish and Wildlife Service (USFWS) for the project area.
- Natural Resources Conservation Service (NRCS) Web Soil Survey information for the project area.

To: Casey Haga, Enduring Resources IV, LLC  
From: Joey Herring  
Subject: Aquatic Resources Delineation  
Date: December 12, 2024  
Page: 3

---

- Floodplain data from the Federal Emergency Management Agency (FEMA) Mapping Information Platform.
- ESRI ArcGIS Online World Imagery.

## 2.1 Wetlands

The survey area was evaluated for the presence of wetlands using guidance provided in the *1987 Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region* (USACE 2008) Under the delineation procedures identified in these manuals, an area must exhibit characteristic wetland hydrology, hydric soils, and hydrophytic vegetation to be considered a wetland. In addition, the USACE requires that under normal circumstances, all three conditions be met for an area to be defined as a wetland (USACE 1987).

## 2.2 Non-Wetland Waters

Barr biologists evaluated the presence/absence and characteristics of the (OHWM) along all non-wetland water features (e.g., streams, creeks, and ponds) mapped during the pre-field desktop evaluation. Guidance from *A Field Guide to the Identification of the Ordinary High-Water Mark in the Arid West Region of the Western United States* (USACE 2008) was used to identify drainage channel lateral limits. General characteristics for determining the OHWM in the project area were identified using guidance provided in USACE RGL 05-05 (USACE 2005).

For stream features exhibiting an OHWM, Barr conducted a streamflow duration assessment in the field using the *User Manual for a Beta Streamflow Duration Assessment Method for the Arid West of the United States* (Mazor et al. 2023). The Streamflow Duration Assessment Method (SDAM) is a rapid, field-based method to determine flow duration class at the reach scale without long-term hydrologic data. The use of the SDAM may inform a range of activities where information on streamflow duration is beneficial, including certain jurisdictional determinations under the CWA; however, the SDAM is not a jurisdictional determination (Mazor et al. 2023). The method is specific to the Arid West Region and relies on five indicators to determine stream flow classification: perennial, intermittent, ephemeral, at least intermittent, and need more information. Biologists recorded the status of these five indicators on a field form for every surface water feature in the survey area with an OHWM.

Handheld global positioning system (GPS) units with submeter accuracy were used to digitally record sampling points and any wetland or other features in the survey area. Geographic information system (GIS) software was used to analyze recorded features, calculate areas, and generate the survey area maps.

## 3 Results

### 3.1 Desktop Review

The Nageezi B02 AST pad is located in the Blanco Canyon watershed (Hydrologic Unit Code 1408010305) (USGS 2021) and can be found on the Blanco Trading Post, New Mexico U.S. Geological Survey 7.5-minute quadrangle. One soil mapping unit is in the survey area—Doak-Sheppard-Shiprock association, rolling. This soil unit is not listed as a hydric soil (NRCS 2024).

The survey area falls within a FEMA Flood Zone X, an area of minimal flood hazard. No FEMA-designated 100-year flood zones are in the survey area (FEMA 2024). The desktop review did not identify

To: Casey Haga, Enduring Resources IV, LLC  
From: Joey Herring  
Subject: Aquatic Resources Delineation  
Date: December 12, 2024  
Page: 4

---

any NHD flowlines, NWI wetlands, or other surface water features within 500 feet of the project (USGS 2016; USFWS 2024).

### 3.2 Field Survey

The aquatic resources delineation survey was conducted on December 6, 2024, by Barr biologists John Dodge and Olivia Sheldon. The field survey verified the absence of any wetlands or other surface water features in the survey area. No drainages or other flowlines were recorded within the survey area.

## 4 Conclusions

Based on the regulatory framework (Section 1), evaluation of the survey area, and the USACE Albuquerque District's current policies regarding jurisdictional determinations, it is Barr's professional opinion that under the current CWA rule, there are no features present in the survey area that would be considered jurisdictional WOTUS.

Pursuant to 19.15.34 NMAC, no drainages with an OHWM were observed within 200 feet of the Nageezi B02 AST pad. No FEMA 100-year flood zones are in the survey area. These conclusions are based on Barr's professional opinion. The USACE has the final regulatory authority to determine the presence and extent of jurisdictional WOTUS. The NMOCD has the final and regulatory authority for determining the presence of continuously flowing watercourses, significant watercourses, or wetlands and their boundaries for the permitting and registration applicable to 19.15.34 NMAC.

## 5 References

Environmental Protection Agency. 2024. Current Implementation of Waters of the United States.

Available at: <https://www.epa.gov/wotus/current-implementation-waters-united-states>. Accessed December 2024.

ESRI. 2024. World Imagery. Available online at: [https://services.arcgisonline.com/ArcGIS/rest/services/World\\_Imagery/MapServer](https://services.arcgisonline.com/ArcGIS/rest/services/World_Imagery/MapServer).

Federal Emergency Management Agency (FEMA). 2024. Flood map service center. U.S. Department of Homeland Security. Washington, D. C. Available online at: <https://msc.fema.gov/portal/>. Accessed December 2024.

Mazor, R. D., B. Topping, T. L. Nadeau, K. M. Fritz, J. Kelso, R. Harrington, W. Beck, K. McCune, H. Lowman, A. Allen, R. Leidy, J. T. Robb, and G. C. L. David. 2023. User Manual for a Beta Streamflow Duration Assessment Method for the Arid West of the United States. Version 1.1. Document No. EPA 800-5-21001.

Natural Resource Conservation Service (NRCS). 2024. Web Soil Survey. [Online digital data.] Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Available at: <http://websoilsurvey.sc.egov.usda.gov/>.

U.S. Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, Environmental Laboratory, US Army Corps of Engineer Waterways Experiment Station. Vicksburg, Mississippi.

To: Casey Haga, Enduring Resources IV, LLC  
From: Joey Herring  
Subject: Aquatic Resources Delineation  
Date: December 12, 2024  
Page: 5

---

USACE. 2005. Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification. December 7, 2005.

USACE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), edited by J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.

U.S. Environmental Protection Agency. 2024. Current Implementation of Waters of the United States. Available at: <https://www.epa.gov/wotus/current-implementation-waters-united-states>. Accessed August 2024.

U.S. Fish and Wildlife Service (USFWS). 2024. National Wetlands Inventory. U.S. Fish and Wildlife Service Ecological Services. Available at: <https://www.fws.gov/program/national-wetlands-inventory>. Accessed December 2024.

U.S. Geological Survey (USGS). 2016. National Hydrography Dataset. Available at: <http://nhd.usgs.gov/index.html>. Accessed December 2024.

USGS. 2021. Watershed Boundary Dataset. Available at: <https://www.usgs.gov/national-hydrography/watershed-boundary-dataset>. Accessed December 2024.



barr.com

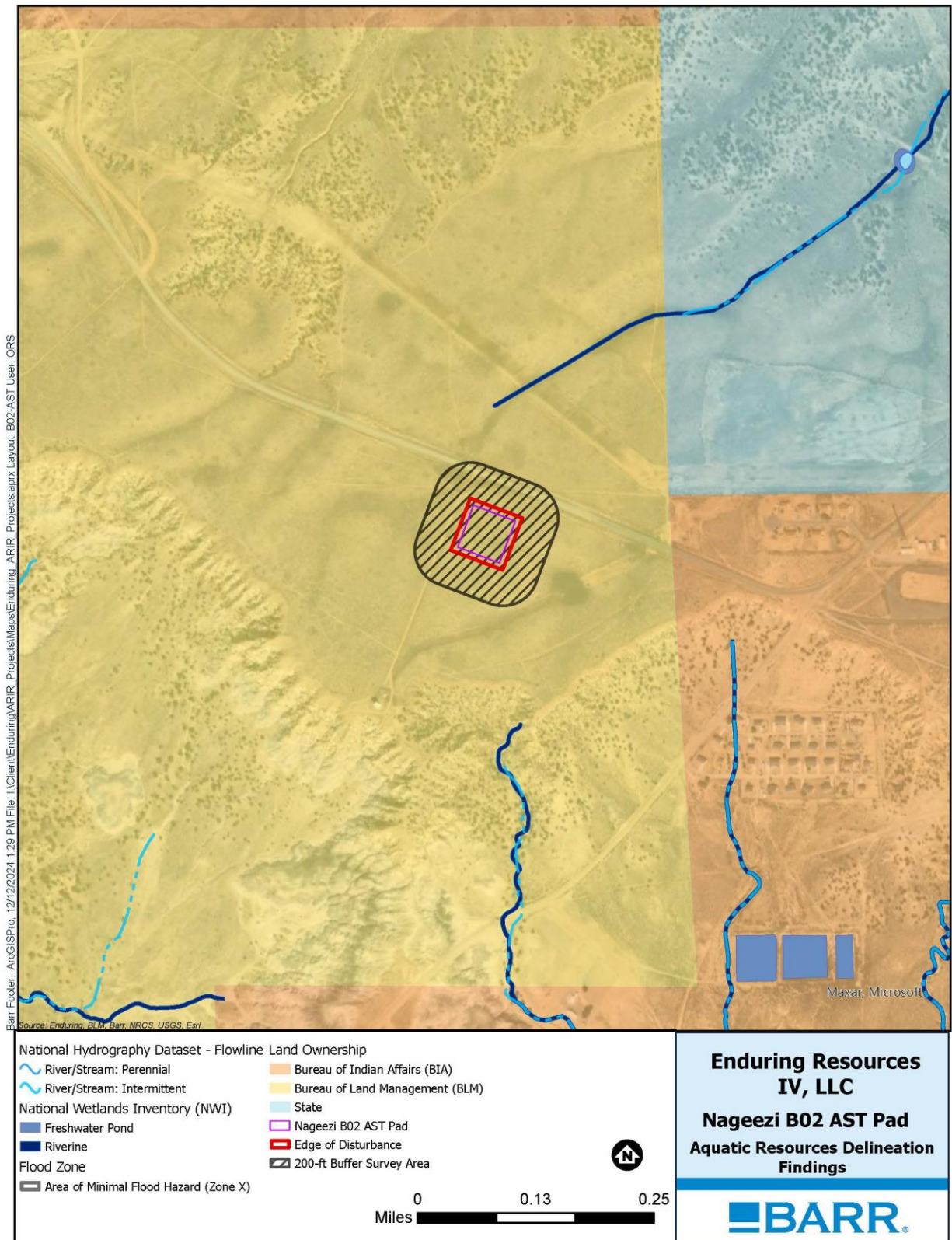
## Attachment A

### Maps





barr.com



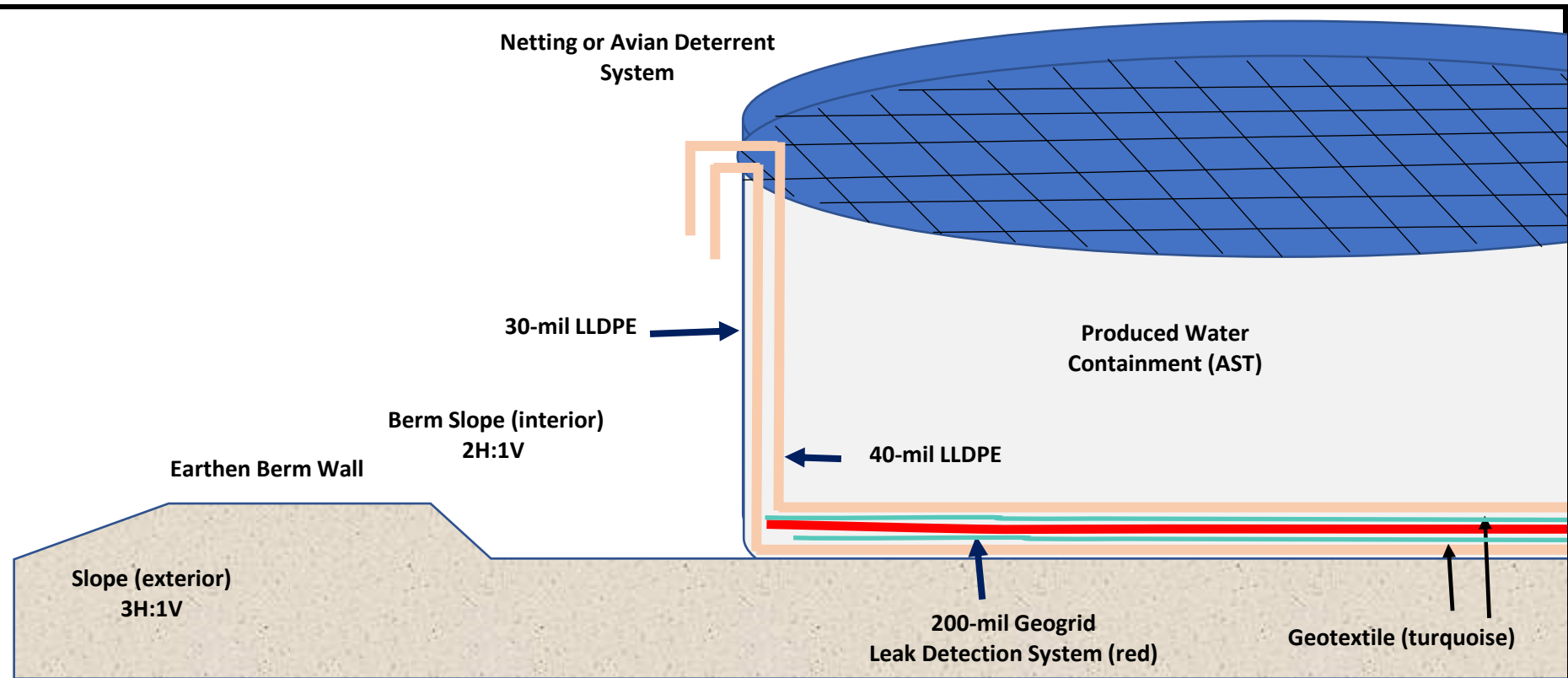
Map 1. Nageezi B02 AST Pad Aquatic Resources Delineation Survey Results

4801 North Butler, Suite 15101 Farmington, NM 87401 | 505.327.3088



## **EXHIBIT G. MANUFACTURE SPECIFICATION**

G



### Description of Leak Detection System

- 40-mil LLDPE comprise primary liner and 30-mil LLDPE comprise the secondary liner
- 200-mil geogrid drainage layer lies between the primary and secondary liner per Plate 2
- Geotextile between the geogrid and each liner
- > 3-inch deep sump excavated on down slope side of AST per Sump Design Drawing
- A small hose runs from the collection sump to top of AST via tube (see Section D)
- Every week, a portable self-priming peristaltic pump connects to the leak detection system.
- The self-priming pump discharge hose runs back into the AST, on top of the primary liner
- If fluid is detected, it is tested for conductance to determine the origin of the water (i.e. produced water or condensation)

R.T. Hicks Consultants Albuquerque, NM	Design Sketch	Plate 1
	Well Water Solutions	May-21

Use laser level to determine slope of pad and low point of AST

200 mil geogrid placed

above 8-oz geotextile and 30-mil secondary liner

inside of AST after set up, before install of primary liner

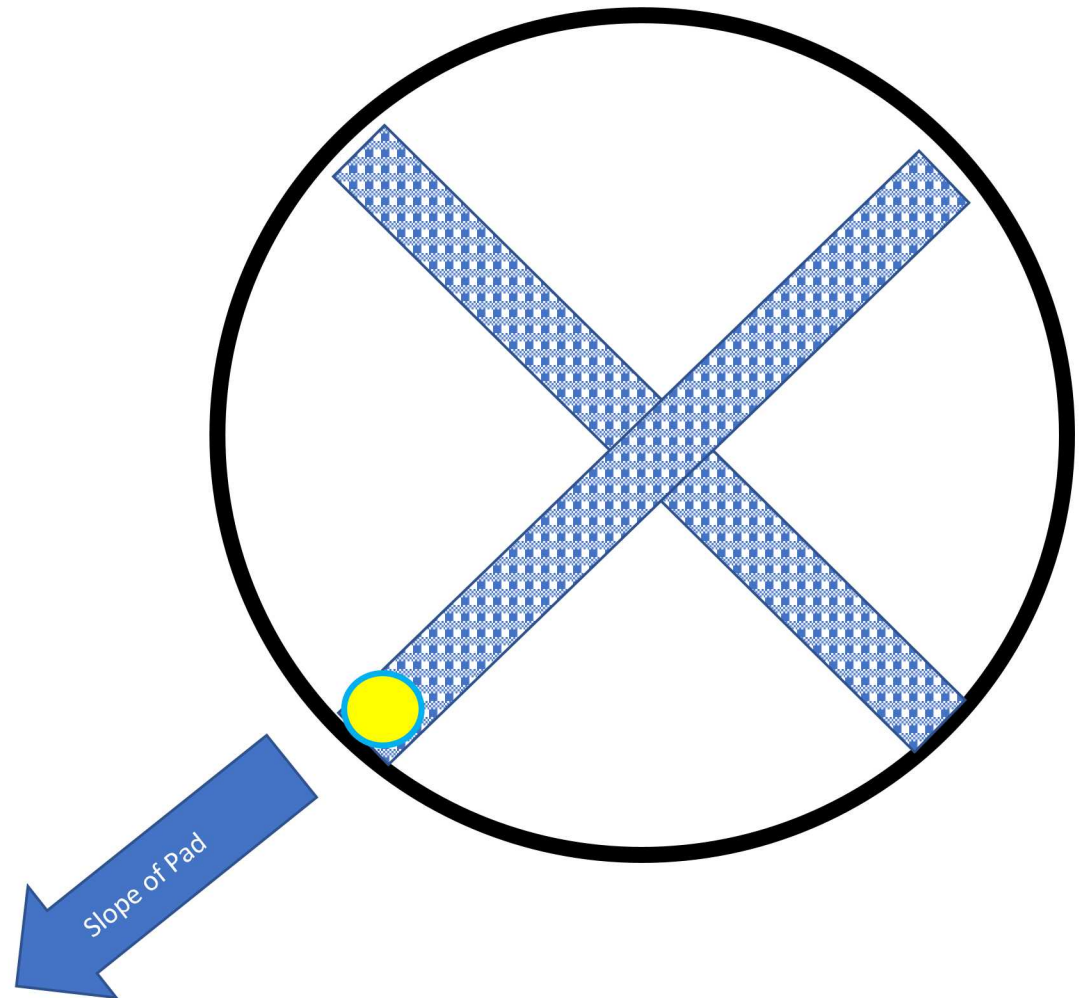
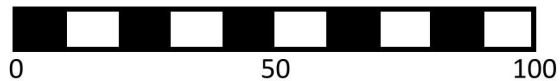
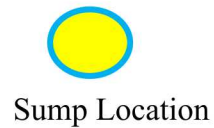
below 40-mil primary liner

8-oz geotextile is placed

over the 30-mil LLDPE liner inside the steel AST ring

under the 40-mil primary liner inside the AST

Sump at lowest point of the AST set up



**R.T. Hicks Consultants  
Albuquerque, NM**

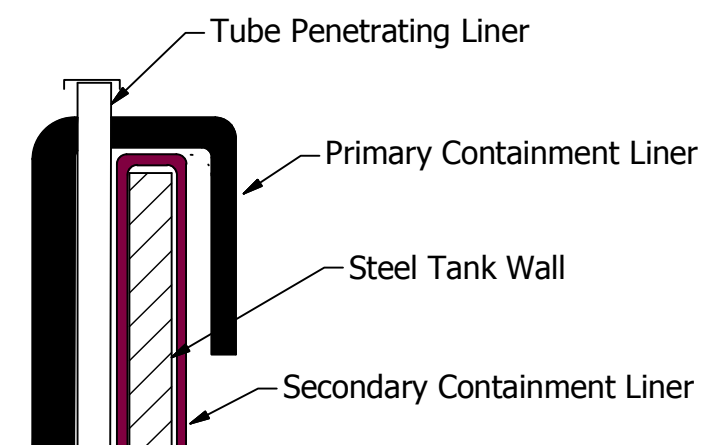
**Layout of Geogrid Drainage Mat**

**Plate 1**

**WWS - New Mexico Produced Water Set Up**

**June 2021**

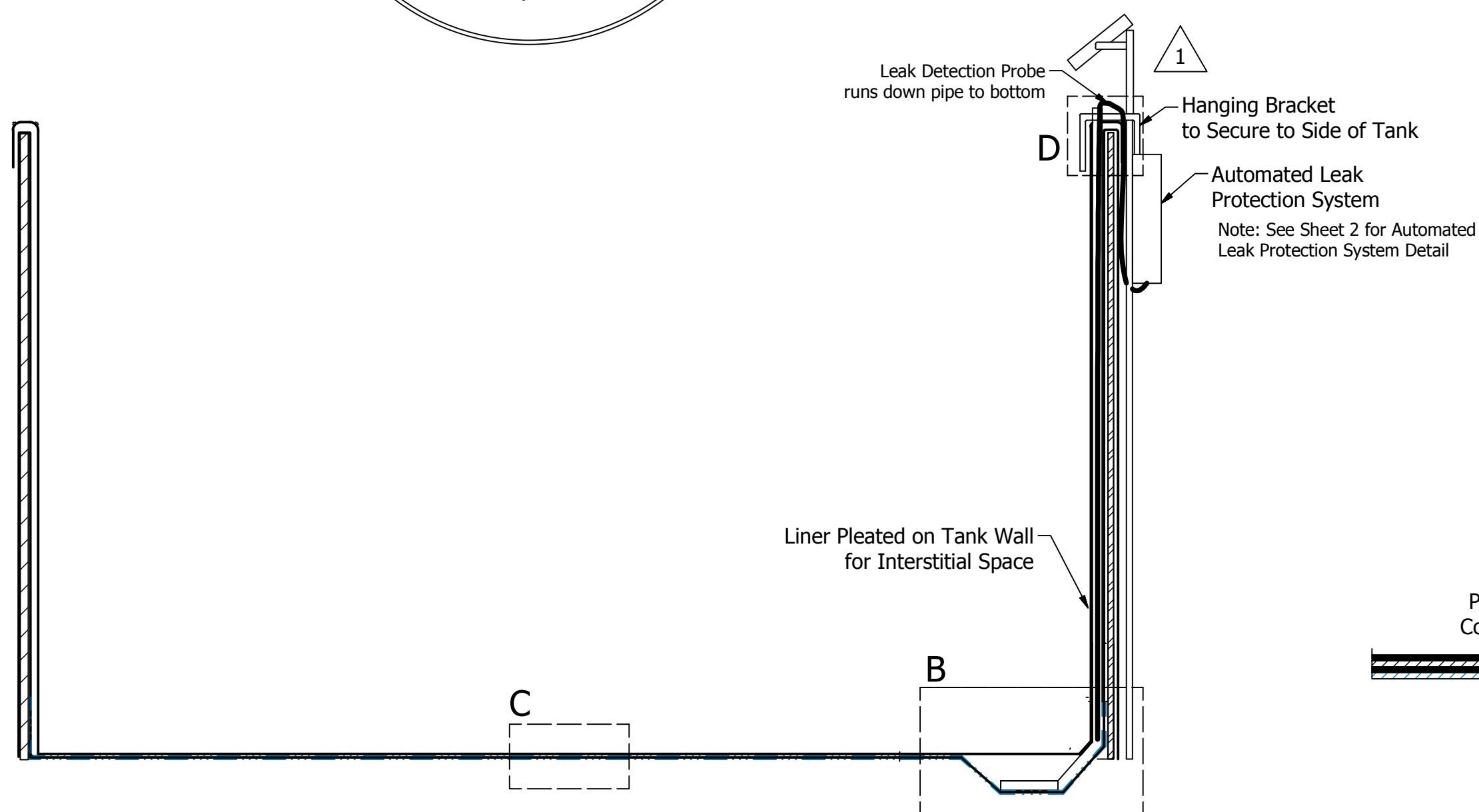
Diagram of a circular tank with a central vertical line and a horizontal line. A rectangular sump is located on the horizontal line, 5 feet from the right wall. A dashed line extends from the left wall to the sump. A label 'A' is at the left end of the dashed line. A label 'X-shaped Sump (to 5' from tank wall)' points to the sump. A label 'A' is at the right end of the horizontal line. A small triangle with the number '2' is at the top right.



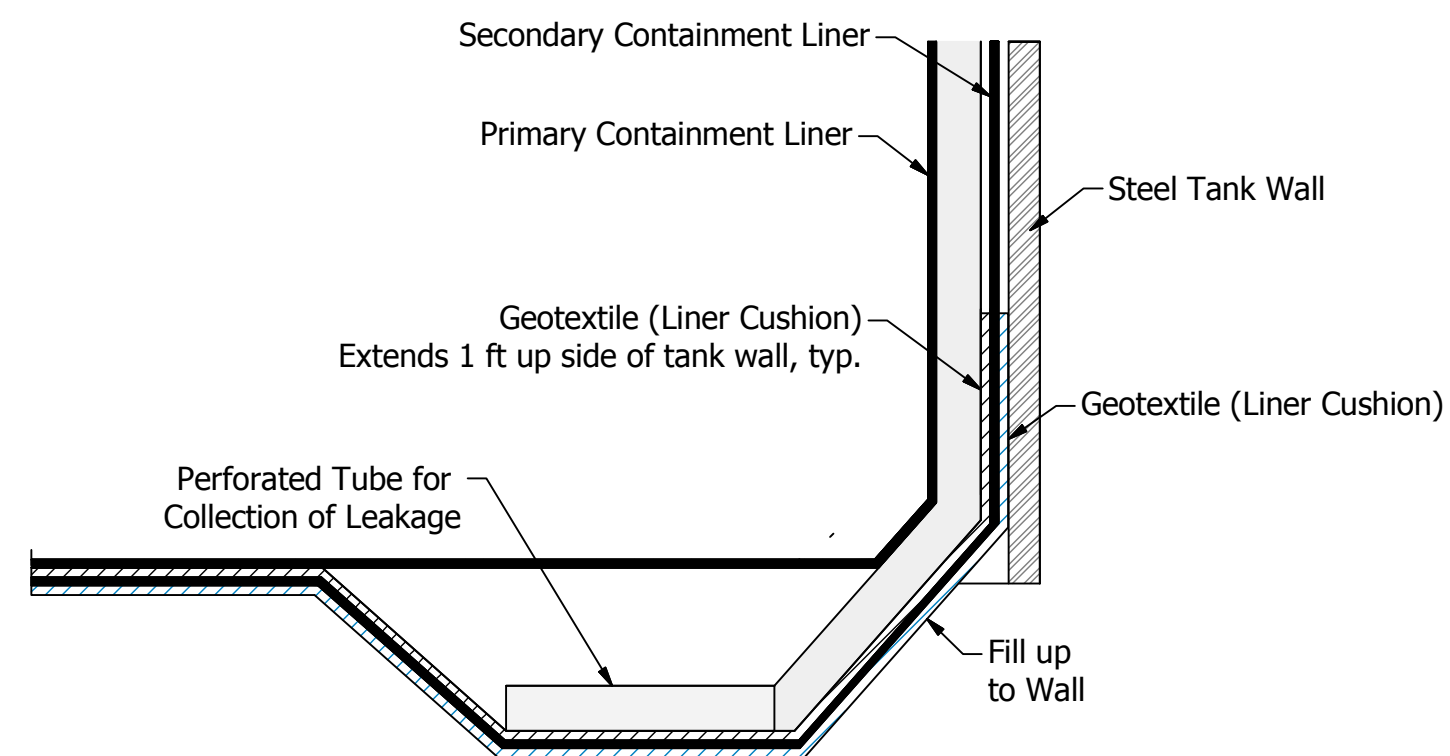
## SECTION D

### TUBE DETAIL

(Automated Leak Detection System Removed for Clarity)

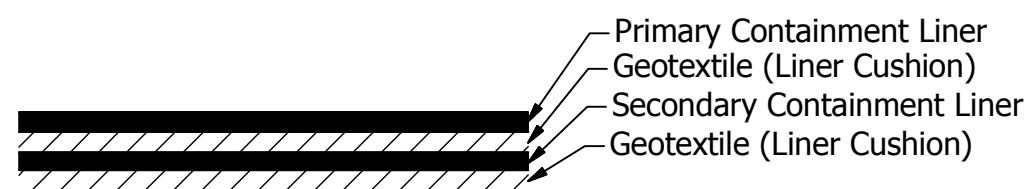


VIEW A-A  
TANK DETAIL



## SECTION B

### SUMP DETAIL




## SECTION C

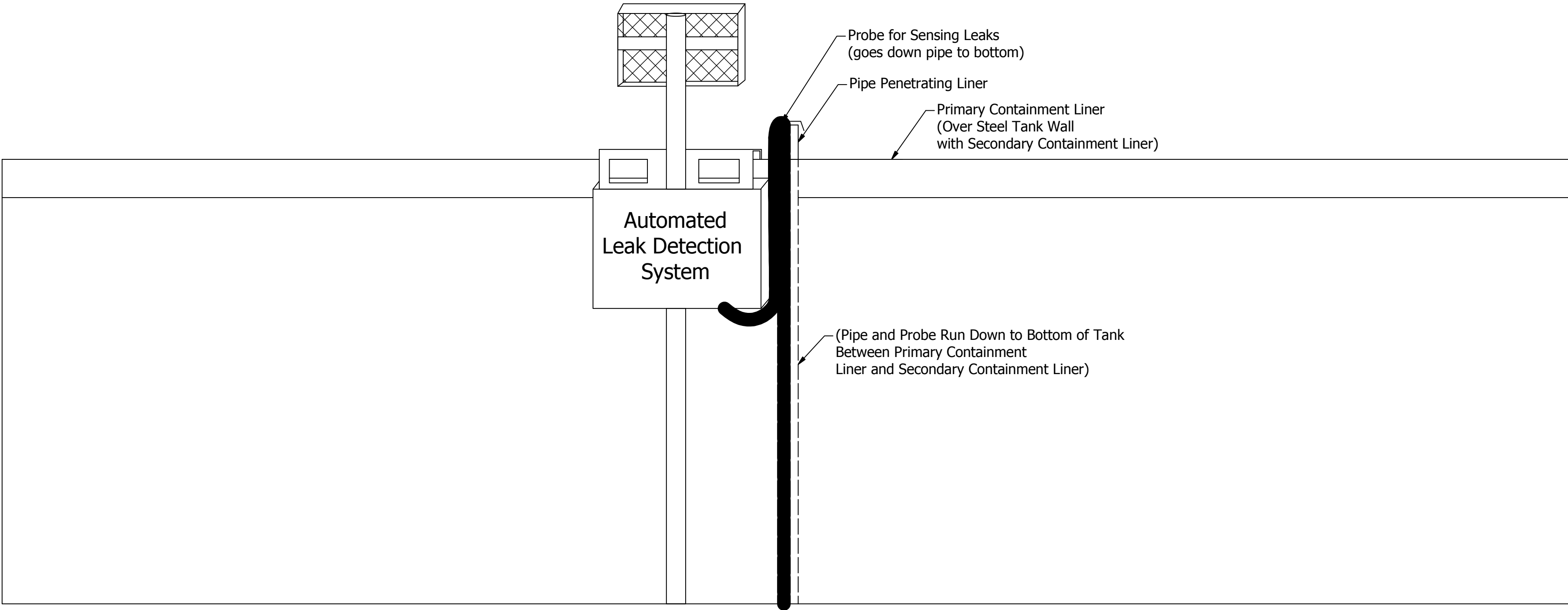
### LINER DETAIL




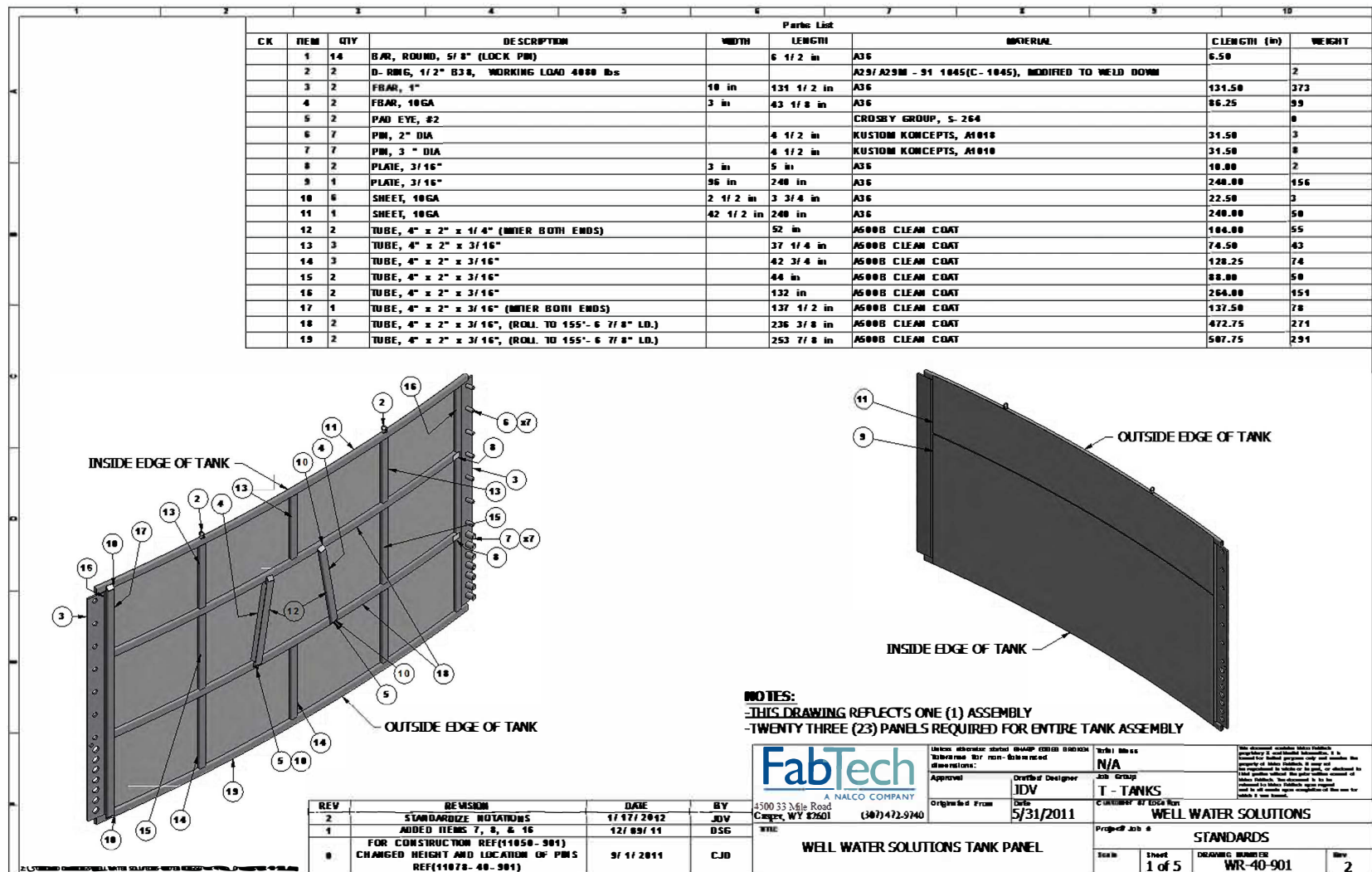
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
0	INITIAL DWG	10/29/2015	SES
1	ADDED LEAK DETECTION SYSTEM	11/6/2015	SES
2	REVISED SUMP	11/6/2015	SES
3	ADDED GEOTEXTILE UNDER AND BETWEEN LINERS	11/24/15	SES

TITLE				<div> <div>SIZE</div> <div>C</div> </div> <div> <div>DWG NO</div> <div>LDD15-WWS-02</div> </div> <div> <div>REV</div> <div>3</div> </div>	
Double-Lined Frac Tank System					
CUSTOMER					
PROJECT/JOB WWS Double-Lined Tank System					
APPROVAL					
DRAFTER SES	DATE 10/28/2015				
THIS DOCUMENT IS THE PROPERTY OF WWS AND MAY NOT BE REPRODUCED OR DISTRIBUTED TO THIRD PARTIES WITHOUT THE PRIOR CONSENT OF WWS.				SHEET 1 OF 2	

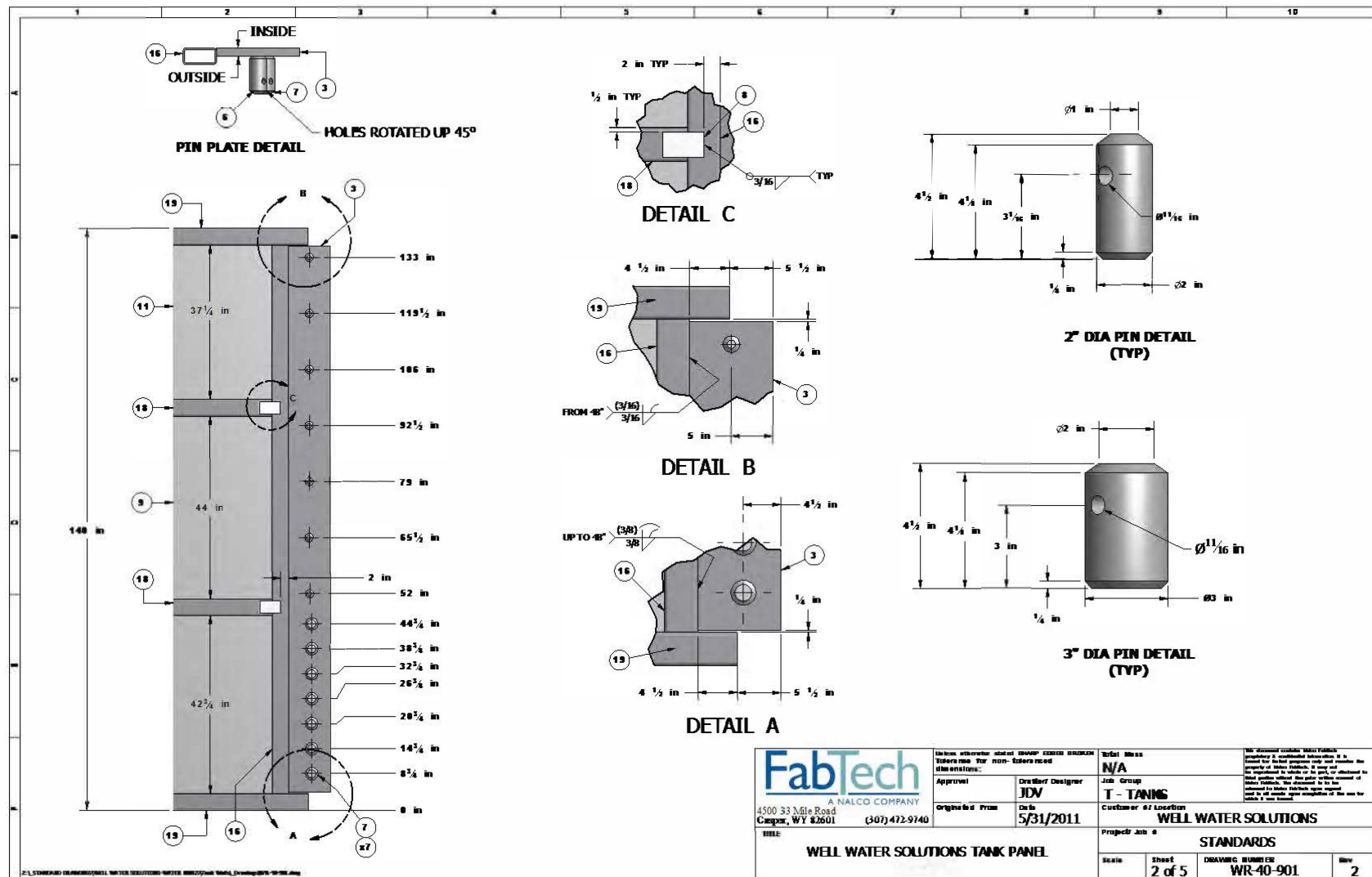
1 AUTOMATED LEAK DETECTION SYSTEM



TITLE				
Double-Lined Frac Tank System				
CUSTOMER				
PROJECT/JOB WWS Double-Lined Tank System				
APPROVAL		DATE 10/28/2015		
DRAFTER SES		REV 3		
SIZE C		DWG NO LDD15-WWS-02		
THIS DOCUMENT IS THE PROPERTY OF WWS AND MAY NOT BE REPRODUCED OR DISTRIBUTED TO THIRD PARTIES WITHOUT THE PRIOR CONSENT OF WWS.		SHEET 2 OF 2		

















# TANK SIZE CHART

TANK SIZE BBLs	PANEL COUNT	INSIDE DIAMETER (FEET)	VOLUME BBLs	BBLs/INCH	SECONDARY CONTAINMENT (ADD 2 PANELS)	SECONDARY CONTAINMENT DIAMETER	TOTAL FEET OF CONTAINMENT
6,000	9	60' 2"	6,090	43.5	11	75'	234'
10,000	12	81' 2"	10,753	76.8	14	95'	298'
13,000	13	87' 10-5/8"	12,609	90.1	15	101'	318'
17,000	15	101.4285	16,800	120	17	115'	361'
20,000	16	108' 2"	19,115	136.53	18	122'	384'
22,000	17	114' 11-7/16"	21,564	154.03	19	135'	426'
27,000	19	128' 6-1/4"	26,954	192.53	21	142'	446"
30,000	20	135' 3-3/8"	29,867	213.35	22	149'	468'
33,000	21	142' 0-9/16"	32,928	235.2	23	156'	489'
36,000	22	148' 9-11/16"	36,139	258.14	24	163'	510'
40,000	23	155' 6-7/8"	39,499	282.14	25	170'	532'
43,000	24	162' 4-1/16"	43,008	307.2	26	176'	553'
47,000	25	169' 1-3/16"	46,667	333.34	27	183'	574'
50,000	26	175' 10-5/16"	50,475	360.54	28	190'	595'
55,000	27	182' 7-9/16"	54,433	388.8	29	196'	617'
60,000	28	189' 4-11/16"	58,539	418.14	30	203'	638'
62,500	29	196' 1/16"	62,500	446.43	31	210'	658'
67,000	30	202' 10 6/16"	66,885	477.75	32	216'	678'
72,000	31	209' 7-7/16"	71,705	512.18	33	223'	701'
77,000	32	216' 4-9/16"	76,405	545.75	34	230'	722'
81,000	33	223' 1-11/16"	81,254	580.39	35	237'	744'

## **EXHIBIT H. VARIANCE REQUESTS**

H



*ENDURING RESOURCES IV LLC*

6300 S Syracuse Way Centennial, CO 80111  
Field Office: 505.636.9720 | Main Office: 303.573.1222

Enduring Resources IV, LLC Nageezi Unit B02 AST Pad Recycling  
Containment and Recycling Facility Variance Request to 19.15.34 NMAC

New Mexico Oil Conservation Division  
Attn: Victoria Venegas

Enduring Resources is requesting variances to the below listed items as outlined in 19.15.34 NMAC. This Recycling Containment/Facility will consist of a self-contained free-standing structure instead of a lined earthen pit. The variances requested below will provide equal or better protection of fresh water, public health, and the environment.

### **Variance Requests:**

***Inside/Outside Levee Slopes:*** Enduring Resources requests a variance to NMAC 19.15.34.12 (A)(2) which applies to a lined earthen pit. The containment is an AST not an in-ground pond; therefore, will not have inside/outside levee slopes. The AST is a self-contained free-standing structure that will provide equal or better protection than the requirements listed in 19.15.34.12 (A)(2) NMAC.

***Liner Anchoring:*** Enduring Resources requests a variance to NMAC 19.15.34.12 (A)(3) which applies to a lined earthen pit. This statute is not applicable to a circular steel AST with liners clamped to the top of the steel containment panels. We believe this will provide equal or better protection than the requirements listed in 19.15.34.12 (A)(3) NMAC.

***Primary Liner:*** Enduring Resources requests a variance to NMAC 19.15.34.12 (A)(4) which applies to the thickness of the primary liner. Enduring Resources proposes the use of a 40-mil LLDPE primary liner and 30-mil LLDPE secondary liner provided by Water Well Solutions and Rentals, Inc. The proposed variance will provide equal or better protection of fresh water, public health and the environment, as the proposed liner meets all other the requirements of NMAC 19.15.34.12 (A)(4) and meets or exceeds the EPA SW-846 method 9090A or subsequent relevant publication.

***Fencing:*** Enduring Resources requests a variance to NMAC 19.15.34.12 (D)(1) and (2) which applies to fencing or enclosing the containment. With the recycling containment being an AST with 12-foot wall height, entrance to containment would have to be intentional. There is no risk of accidental entrance into containment by wildlife or the public. The site will be maintained to prevent harm to wildlife and the public. The freestanding above grade AST will provide equal or better protection to public health and the environment, as the fencing requirements of NMAC 19.15.34.12 (D)(1) and (2).

Thank you,

Steven Merrell  
Regulatory Specialist  
Enduring Resources, LLC.  
505.634.6490 – Cell

**Venegas, Victoria, EMNRD**

---

**From:** Venegas, Victoria, EMNRD  
**Sent:** Monday, January 6, 2025 10:17 AM  
**To:** Heather Huntington  
**Subject:** 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413]  
**Attachments:** C-147 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413].pdf

**3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413]**

Good morning Ms. Huntington.

NMOCD has reviewed the recycling containment permit application and related documents, submitted by [371838] DJR OPERATING, LLC on 12/31/2024, Application ID 416093, for 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] in L1-02-23N-09W, San Juan County, New Mexico. [371838] DJR OPERATING, LLC requested variances from 19.15.34 NMAC for 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413].

The following variances have been approved:

- The variance to 19.15.34.12.A.(2) NMAC for the no side-slope requirement for the AST containment with vertical walls is approved.
- The variance to 19.15.34.12.A.(3) NMAC for the liners to be anchored to the top of the AST steel walls and no anchor trenches is approved.
- The variance to 19.15.34.12.A.(4) NMAC for the installation on the AST containment of a 40-mil non-reinforced LLDPE primary liner is approved. [371838] DJR OPERATING, LLC proposes the use of a 40-mil LLDP E primary liner and 30-mil LLPDE secondary liner provided by Water Well Solutions and Rentals, Inc.
- [371838] DJR OPERATING, LLC requests a variance to NMAC 19.15.34.12 (D)(l) and (2) which applies to fencing or enclosing the containment. The freestanding 12-foot wall height above grade ASTs will provide equal or better protection to public health and the environment, as the fencing requirements of NMAC 19.15.34.12 (D)(l) and (2). This variance is approved.

The form C-147 and related documents for 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] are approved with the following conditions of approval:

- The purpose of this permit is for oil and gas activities regulated under the NMAC 19.15.34.3 STATUTORY AUTHORITY: 19.15.34 NMAC is adopted pursuant to the Oil and Gas Act, Paragraph (15) of Section 70-2-12(B) NMSA 1978, which authorizes the division to regulate the disposition of water produced or used in connection with the drilling for or producing of oil and gas or both and Paragraph (21) of Section 70-2-12(B) NMSA 1978 which authorizes the regulation of the disposition of nondomestic wastes from the exploration, development, production or storage of crude oil or natural gas.
- 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] is approved for five years of operation from the date of permit application of 12/31/2024. 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] permit expires on 12/31/2029. If [371838] DJR OPERATING, LLC wishes to extend operations past five years, an annual permit extension request must be submitted using an OCD form C-147 through OCD Permitting by 11/31/2029.
- 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] consists of one (1) 43,000 barrels above ground storage tank (AST). The recycling facility will consist of up to thirty 400 bbl vertical frac tanks with a consolidated volume of 12,000 bbl. [371838] DJR OPERATING, LLC must submit a "recycling facility" modification in the event the number of frac tanks exceeds the approved number of thirty (30) 400 bbl vertical frac tanks.
- Water reuse and recycling from 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] is limited to wells owned or operated by [371838] DJR OPERATING, LLC per 19.15.34.15(A)(2) NMAC.

- [371838] DJR OPERATING, LLC shall construct, operate, maintain, close, and reclaim 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] in compliance with NMAC 19.15.34 NMAC.
- [371838] DJR OPERATING, LLC shall notify OCD, through OCD Permitting when construction of 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] commences.
- [371838] DJR OPERATING, LLC shall notify NMOCDD through OCD Permitting when recycling operations commence and cease at 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413].
- A minimum 3-feet freeboard must be maintained at 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] at all times during operations.
- If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdrawal, operations of the 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] are considered ceased and a notification of cessation of operations should be sent electronically to OCD Permitting. A request to extend the operations, not to exceed six months, may be submitted using a C-147 form through OCD Permitting. If after that 6-month extension period, the 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] is not utilized at a minimum of 20% fluid capacity, no additional extensions would be granted, and the operator would be directed to remove all fluids and proceed with the closure requirements.
- [371838] DJR OPERATING, LLC shall submit monthly reports of recycling and reuse of produced water, drilling fluids, and liquid oil field waste on OCD form C-148 via OCD Permitting even if there is zero activity.
- [371838] DJR OPERATING, LLC shall inspect the recycling containment and associated leak detection systems weekly while it contains fluids. The operator shall maintain a current log of such inspections and make the log available for review by the division upon request according to 19.15.34.13.A.
- [371838] DJR OPERATING, LLC shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field waste at 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413].
- Per 19.15.34.14.G The re-vegetation and reclamation obligations imposed by federal, state trust land or tribal agencies on land managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.

Please reference number 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] in all future communications.  
Regards,

**Victoria Venegas** • Environmental Specialist Advanced  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. Artesia, NM 88210  
575.909.0269 | [Victoria.Venegas@emnrd.nm.gov](mailto:Victoria.Venegas@emnrd.nm.gov)

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 416093

**CONDITIONS**

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 416093
	Action Type: [C-147] Water Recycle Long (C-147L)

**CONDITIONS**

Created By	Condition	Condition Date
vvenegas	3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] permit expires on 12/31/2029. If [371838] DJR OPERATING, LLC wishes to extend operations past five years, an annual permit extension request must be submitted using an OCD form C-147 through OCD Permitting by 11/31/2029. • [371838] DJR OPERATING, LLC shall construct, operate, maintain, close, and reclaim 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413] in compliance with NMAC 19.15.34 NMAC. • [371838] DJR OPERATING, LLC shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field waste at 3RF-84 - NAGEEZI UNIT B02 AST PAD [fVV2500629413].	1/6/2025