

# C-147 REGISTRATION PACKAGE

## Blanco Wash Unit Water Supply Well Pad Recycling Containment and Recycling Facility

September 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): Blanco Wash Unit Water Supply Well Pad  
OCD Permit Number: 3RF-77 (For new facilities the permit number will be assigned by the district office)  
U/L or Qtr/Qtr I Section 24 Township 24N 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 36.2969730 Longitude -107.7343213 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 36.2969730 Longitude -107.7343213 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: 103,000 bbl Dimensions: Dia for 43K AST = 162'4" and Dia for 60K AST = 190' x Height Both are 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 Facility will have six foot chain link fence around location

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: 09/19/24  
e-mail address: hhuntington@enduringresources.com Telephone: 505-636-9751

11.

OCD Representative Signature: Victoria Venegas Approval Date: 09/24/2024

Title: Environmental Specialist OCD Permit Number: 3RF-77

- ☒ 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

## C-147 Registration Package

# 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	Blanco Wash Unit Water Supply Well Pad Recycling Containment and Recycling Facility
Project Type	Recycling Facility & Recycling Containment
Legal Location	Northeast ¼ of the Southeast ¼ of Section 24, Township 24N, 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, LLC requests registration of their Blanco Wash Unit Water Supply Well Pad (BWU WSW 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 tanks (AST) and one 60,000 bbl AST for a consolidated volume of 103,000 bbls. 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. These AST containments fall 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 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 containments 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 containments 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 ASTs and recycling facility layout. This facility will not be used for the disposal of produced water.

The BWU WSW Pad is located at 36.2969730 ° N, -107.7343213 ° W, within Section 24, Township 24N, 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. See Exhibit C of the approved Sundry Notice of Intent for this site and associated infrastructure. 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 plans, operating and maintenance plans, closure plan, closure and site reclamation requirements, and surface owner notification.

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

If the AST containments are 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 containments, including monitoring of the leak detection systems indicating that the 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 POD 1 SJ-04587 in the Northeast ¼ of the Southwest ¼ of Section 25, Township 24N, Range 09W. This water well was drilled to a total depth of 800 feet with depth to ground water measured at 640 feet. This water well is located approximately 5,491 feet southwest of the BWU WSW Pad. With the proposed containment being an AST sitting above ground level and sitting upgradient from this water well, the groundwater depth is greater than 50 feet below the bottom of the recycling containment. See Exhibit D for the water well summary. Additional average depth to ground water information can be found below for Township 24 North Range 09 West.

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

### 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 ASTs as shown in Exhibit E Map 2. Additionally, there are no significant drainages within 200' of the proposed ASTs.

DJR contracted SWCA Environmental Consultants in August of 2024 to assess all surrounding drainages per 19.15.34.11 A.(2) NMAC. In the report provided to DJR titled, *Aquatic Resources Delineation Technical Memorandum*, SWCA Summarized the following. This report is attached hereto as Exhibit F:

*Based on the regulatory considerations provided in Section 2, evaluation of the survey area, and SWCA's understanding of the USACE Albuquerque District's current policies regarding jurisdictional determinations, it is SWCA's professional opinion that per the 2023 Amended Rule, no features present within the survey area would be considered jurisdictional WOTUS by the USACE.*

*Pursuant to 19.15.34 NMAC, no OHWMs were observed within 200 feet of the project area. Therefore, no significant watercourse is likely to occur within 200 feet of the proposed recycling containment. Additionally, neither the project area nor the survey area intersect a FEMA 100-year flood zone.*

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

The recycling containments are 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 containments are 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. Please note, the Water well point that

appears in the middle of location in Map 2 is DJR's Blanco Wash Unit Water Supply Well for the production of non-potable water. The nearest fresh water well according to New Mexico Office of the State Engineer (NM-OSE) is 5,491 feet Southwest and discussed in section 2.1 above. Nearest spring/seep according to the National Hydrologic Dataset (NHD) is 22,414 feet Northwest.

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

The recycling Containments are 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 29.8 miles North-Northwest.

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

The recycling containments are 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. Vegetation in and along drainages was typical of the surrounding shrubland habitat. There was no vegetative transition to wetland species near or along the drainage.

#### **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 24N, Range 09W, 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 20.2 miles south-southeast.

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

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

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

- Prior to earthwork, all trees (if applicable) and slash/brush, is mulched and incorporated into the topsoil. Tree roots and trunks are removed from the site. The topsoil (vegetative root layer) and mulched organic matter is stripped from location and windrowed along the perimeter of location. Topsoil is not used for pad construction as the organic matter mixed within the soil prevents adequate compaction.
- Subsoil horizons are then utilized to construct a balanced (high areas are cut and used to fill low areas) location. Fill slopes are deposited and compacted in approximate 6-inch lifts with optimal soil moisture content.
- If soil is deemed too wet from inclement weather, it is not utilized as adequate compaction cannot be achieved. Additionally, if construction occurs during winter months, the frost layer if applicable is stripped and sub frost line soil horizons are 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.
- Each AST 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 containments are 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 3,000 feet 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 containments at the BWU WSW Pad. The facility and recycling containments have been designed to prevent releases 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 containments are provided as Exhibit G.

**3.1. Foundation Construction**

The containment ASTs will be constructed on DJR's approved Blanco Wash Unit Water Supply Well Pad. The AST footprints 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 containments will ensure confinement of produced water, to prevent releases and to prevent overtopping due to wave action or rainfall. Geotextile is used under the liners to reduce localized stress-strain or protuberances that otherwise may compromise the liner integrity. The containments are above ground and are not subject to water run-on.

**3.2. Liner and Leak Detection**

The containments 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.

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 containments, 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 each containment and consists of a 200-mil geonet drainage layer. The leak detection system covers the bottom and sides of each containment and includes a minimum of 3 feet of freeboard. A 6-inch PVC pipe is inserted in the sump at the bottom of each 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 containments 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**

The BWU WSW pad once constructed will have a 6-foot chain link fence around location with dual 12-foot gates at the entrance to location to restrict unauthorized entrance. Additionally, with the recycling containments being ASTs with 12-foot wall height, entrance into containments would have to be intentional. There is no risk of accidental entrance into the containments 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 containments. The netting will be inspected monthly for disrepair. The containments 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 systems while the containments hold 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 containments upon discovery.
- DJR will maintain a minimum of three feet of freeboard in the containments at all times.
- The injection and withdrawal of fluids from the containments 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 primary liner above the liquid level in either of the containment, DJR will repair the primary liner within 48 hours, or request an extension on repair within the 48-hour time limit.
- If a leak is discovered in the primary liner below the liquid level in either of the containments, 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 containments 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 BWU WSW Pad. 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 containments within 60 days from the date that operations cease and close the containments 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 containments, 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 containments and recycling facility will be removed from the site.

### 5.2. Closure Soil Sampling

Once the containments are 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
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 approved reclamation plan attached to the Blanco Wash Unit WSW APD. This reclamation plan was developed with, and approved by, the surface managing agency.

## **EXHIBIT A. PLAT**

A

**DISTRICT I**1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720**DISTRICT II**811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720**DISTRICT III**1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170**DISTRICT IV**1220 S. St. Francis Dr., Santa Fe, N.M. 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462State of New Mexico  
Energy, Minerals & Natural Resources Department**OIL CONSERVATION DIVISION**1220 South St. Francis Dr.  
Santa Fe, N.M. 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>Blanco Wash Unit WSW</b>	
<sup>7</sup> OGRID No. <b>371838</b>	<sup>8</sup> Operator Name <b>DJR Operating, LLC</b>	<sup>6</sup> Well Number <b>1</b>
		<sup>9</sup> Elevation <b>6883</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>I</b>	<b>24</b>	<b>24 N</b>	<b>9 W</b>		<b>1613</b>	<b>South</b>	<b>712</b>	<b>East</b>	<b>San Juan</b>

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

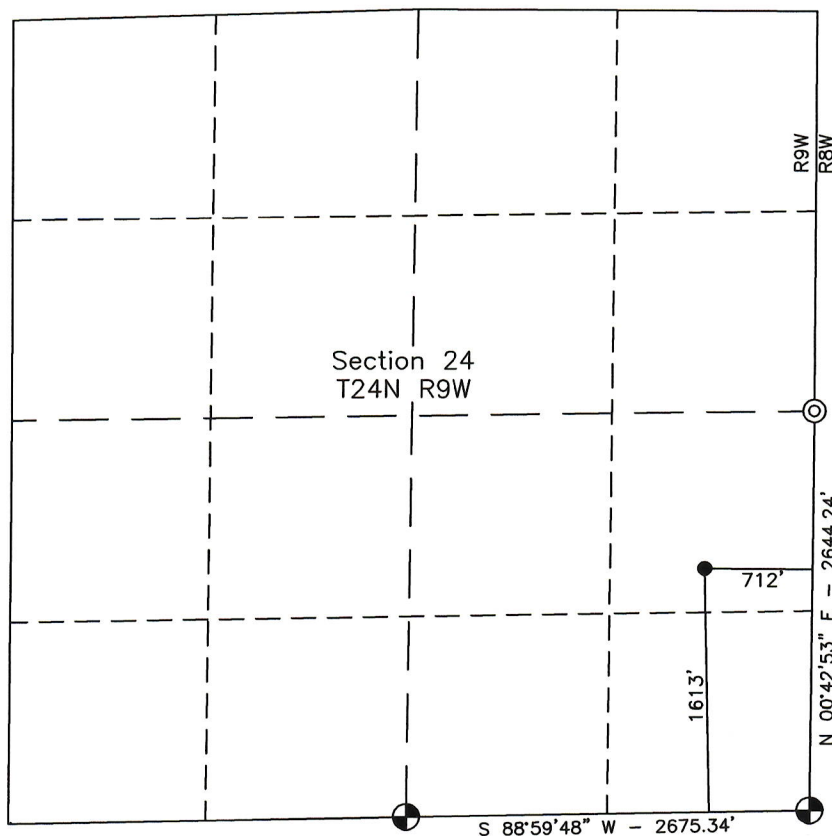
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

**Legend:**

- = Surface Location
- ⊙ = Found 1933 USGLO Brass Cap
- ⊙ = Found 1947 USGLO Brass Cap

Surface Location  
Lat = 36.2969730° N  
Long = 107.7343213° W  
NAD 83**17 OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

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

Printed Name \_\_\_\_\_

E-mail Address \_\_\_\_\_

**18 SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

5/09/19

Date of Survey

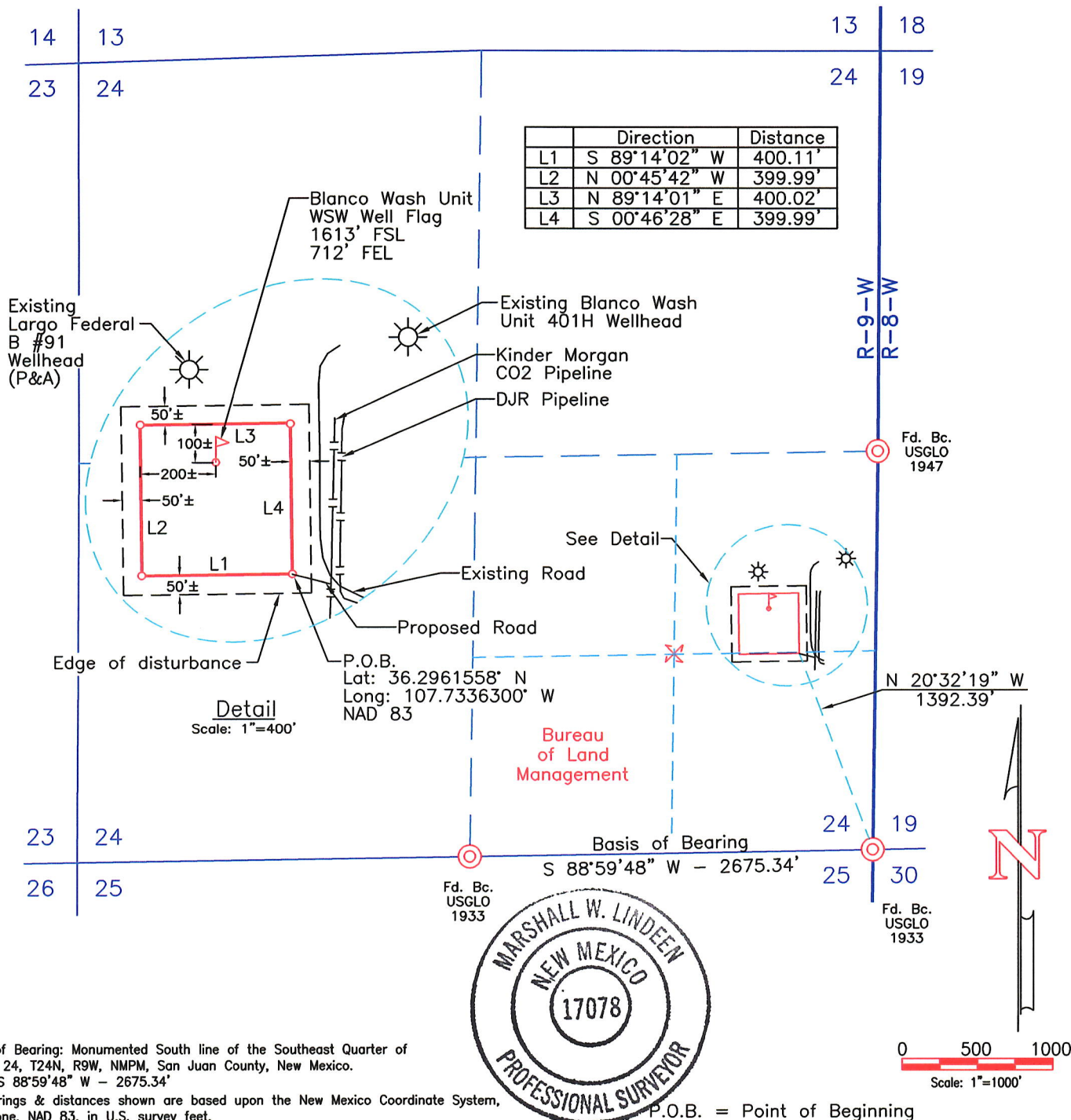
Signature and Seal of Professional Surveyor

**MARSHALL W. LINDEN**  
NEW MEXICO  
17078  
5-29-19  
PROFESSIONAL SURVEYOR  
17078  
Certificate Number

## DJR Operating, LLC

## Blanco Wash Unit WSW

E 1/2 SE 1/4 of Sec. 24, T24N, R9W, NMPM,  
San Juan County, New Mexico



I, Marshall W. Lindeen, New Mexico Professional Surveyor No. 17078, do hereby certify that this survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief, I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act.

Marshall W. Lindeen, P.S. #17078

5-29-19  
Date

Owner	Square Feet	Acres
B.L.M.	160,025	3.674

		P.O. Box 3651 Farmington, NM 87499 Office: (505) 334-0408
DWG. No. : 11333-SITE	Revision: 1	
Drawn by: A.A.D.	Date Drawn: 4/16/19	Rev. Date:
Surveyed: 4/13/19	App by: M.W.L.	Sheet: 1

# DJR Operating, LLC

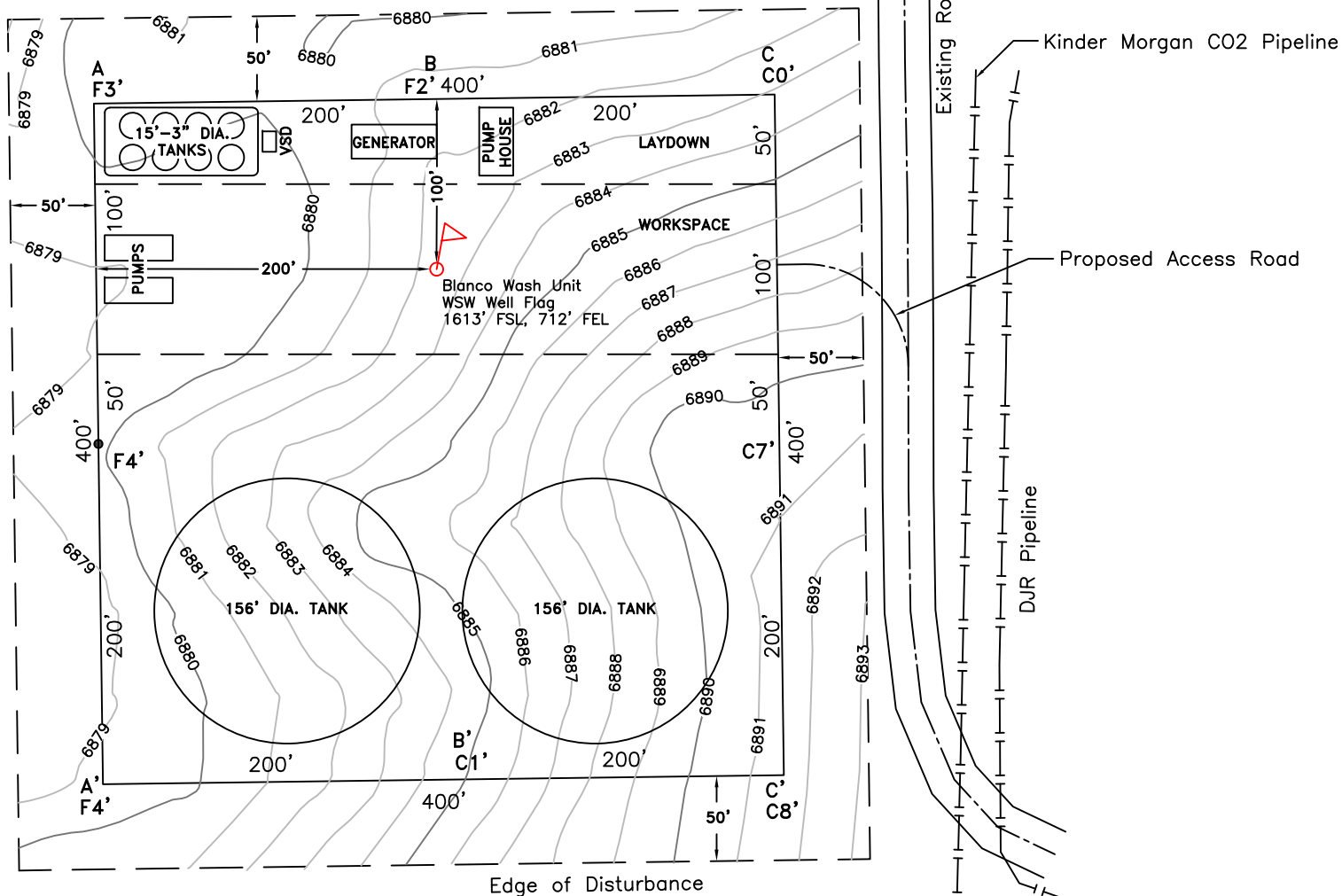
Blanco Wash Unit WSW  
Section 24 T24N R9W NMPM  
San Juan County, NM

*Before digging  
call for utility  
line location!*



0 50 100  
SCALE: 1"=100'

Proposed  
Pad Elevation  
6883.6'



## Notes:

1. All Bearings and distances are based upon the New Mexico State Plane Coordinate System, West Zone, NAD 83, in U.S. survey feet.
2. Basis of elevation is referenced to the North American Vertical Datum of 1988.
3. Contractor shall contact "One-Call" for location of any marked or unmarked buried pipelines or cables on pad and/or access road at least two (2) working days prior to construction.
4. United Field Services Inc. is not liable for underground utilities or pipelines.
5. Cut and fill calculations are rounded to the nearest foot.

Sheet 1 of 2

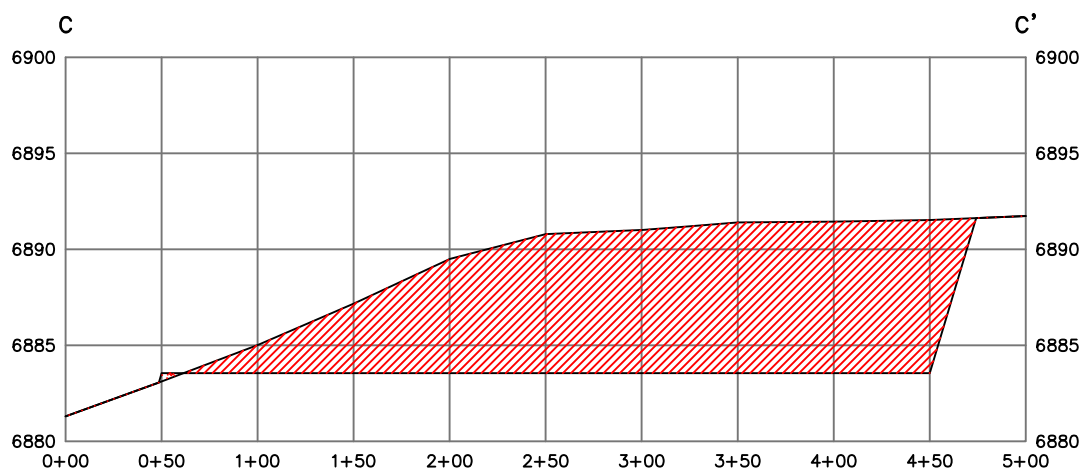
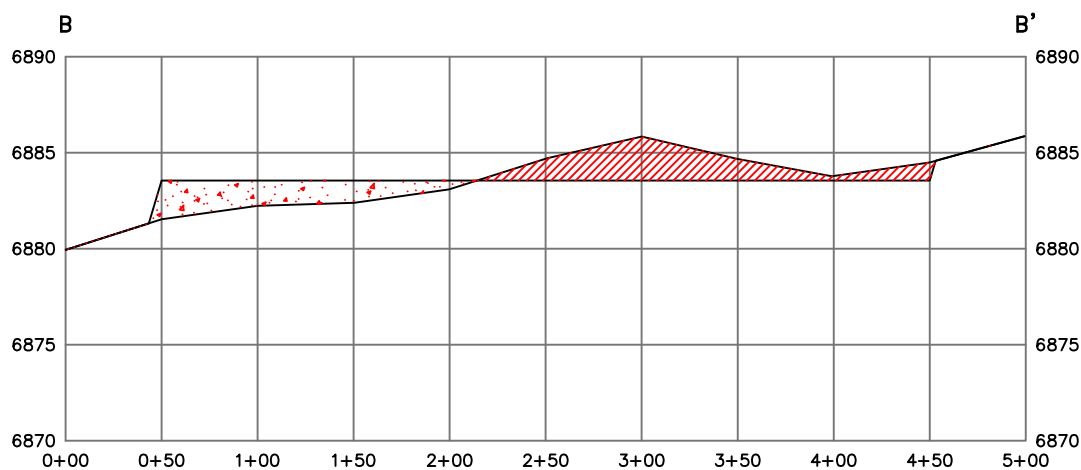
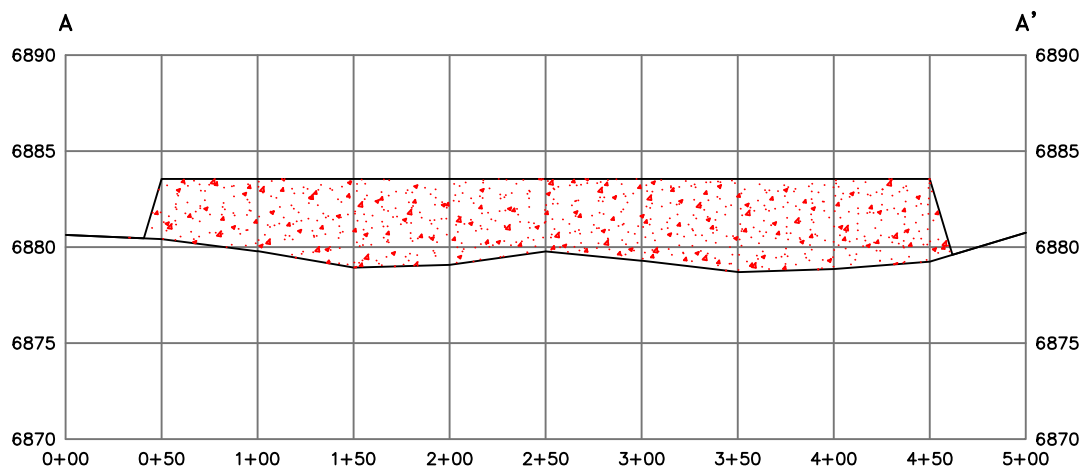


P.O. Box 3651  
Farmington, NM 87499  
Office: (505) 334-0408

Surveyed: 4/13/19	Rev./By: 7/10/19/K.S.	App. by: M.W.L.
Drawn by: A.D.	Date drawn: 5/01/19	File name: 11333-Pad

# DJR Operating, LLC

Blanco Wash Unit WSW  
Section 24 T24N R9W NMPM  
San Juan County, NM



Sheet 2 of 2

Horizontal Scale: 1" = 100'  
Vertical Scale: 1" = 10'



P.O. Box 3651  
Farmington, NM 87499  
Office: (505) 334-0408

Surveyed: 4/13/19

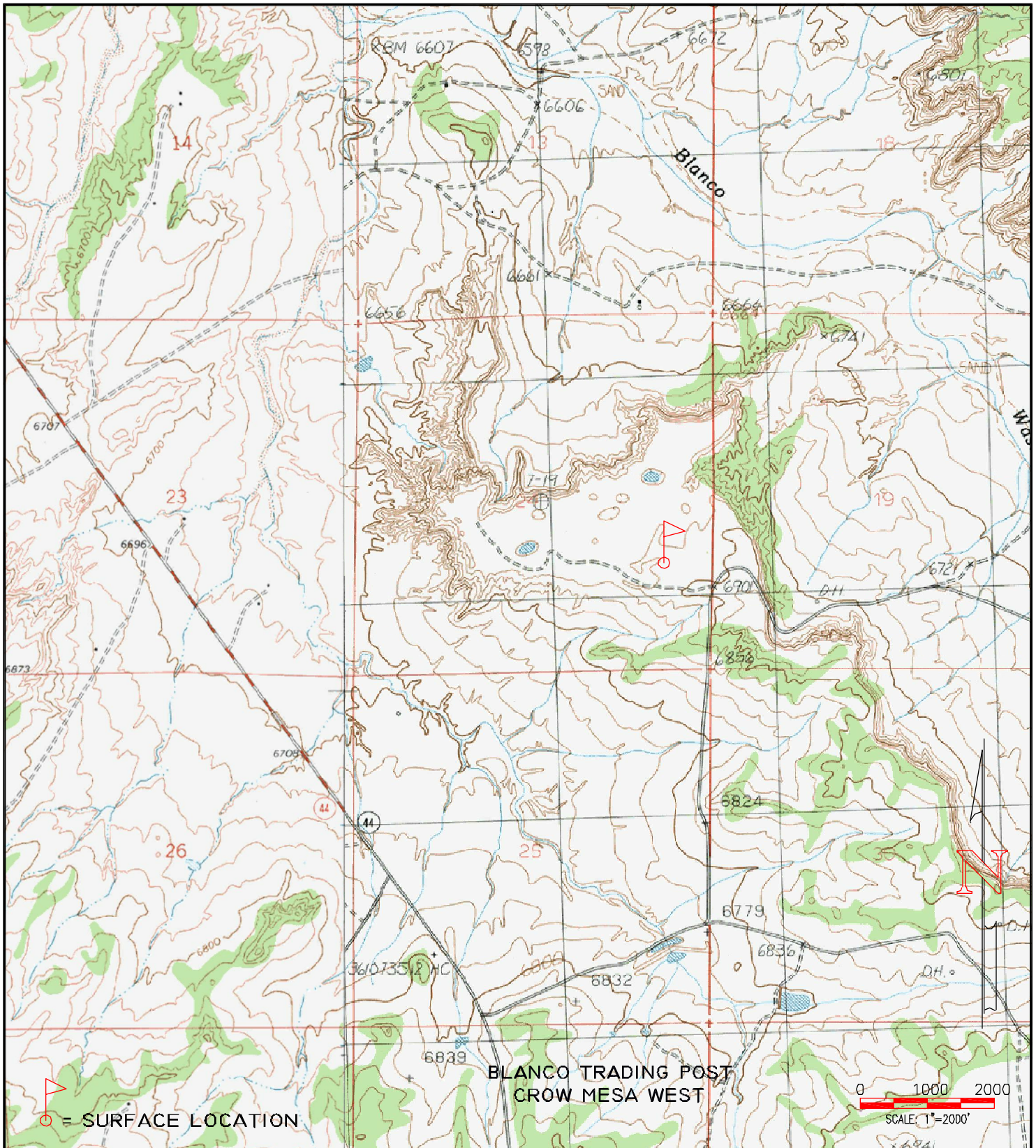
Rev. date:

App. by: M.W.L.

Drawn by: A.D.

Date drawn: 5/01/19

File name: 11333-Pad



LEASE: BLANCO WASH UNIT WSW

FOOTAGES: 1613' FSL, 712' FEL, SECTION 24

TOWNSHIP: 24 N RANGE: 9 W N.M.P.M.

LAT: 36.2969730° N LONG: 107.7343213° W (NAD83)

ELEVATION: 6883'

DJR Operating, LLC



P.O. BOX 3651  
FARMINGTON, NM 87499  
OFFICE: (505) 334-0408

DWG. NO. : 11333-T01

REVISION: 1

DRAWN BY: A.D.

DATE DRAWN: 5/30/19

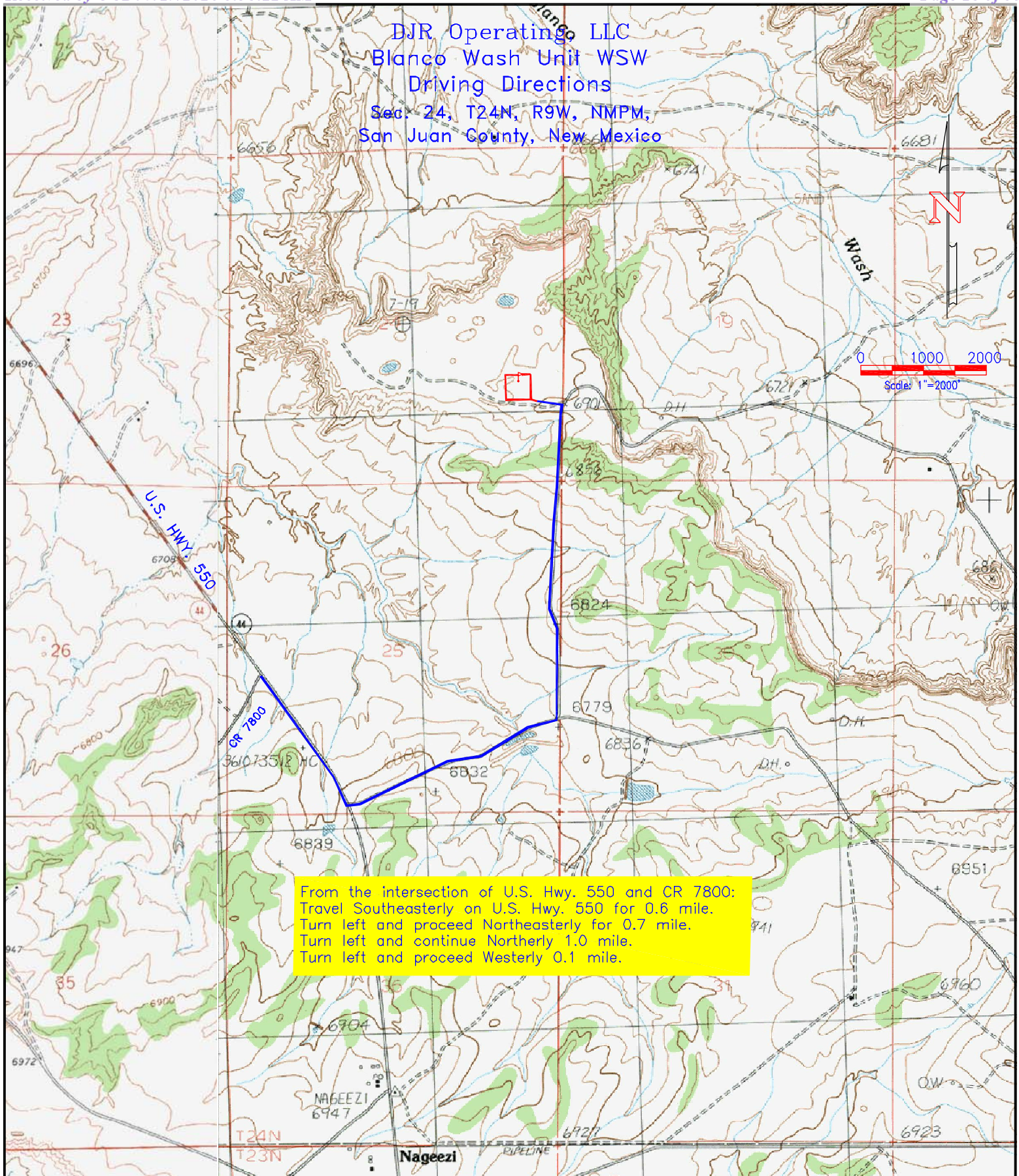
REV. DATE:

SURVEYED: 4/13/19

APP. BY: M.W.L.

SHEET: 1

DJR Operating LLC  
Blanco Wash Unit WSW  
Driving Directions  
Sec. 24, T24N, R9W, NMPM,  
San Juan County, New Mexico



Quadrangle Maps  
Blanco Trading Post  
Crow Mesa West



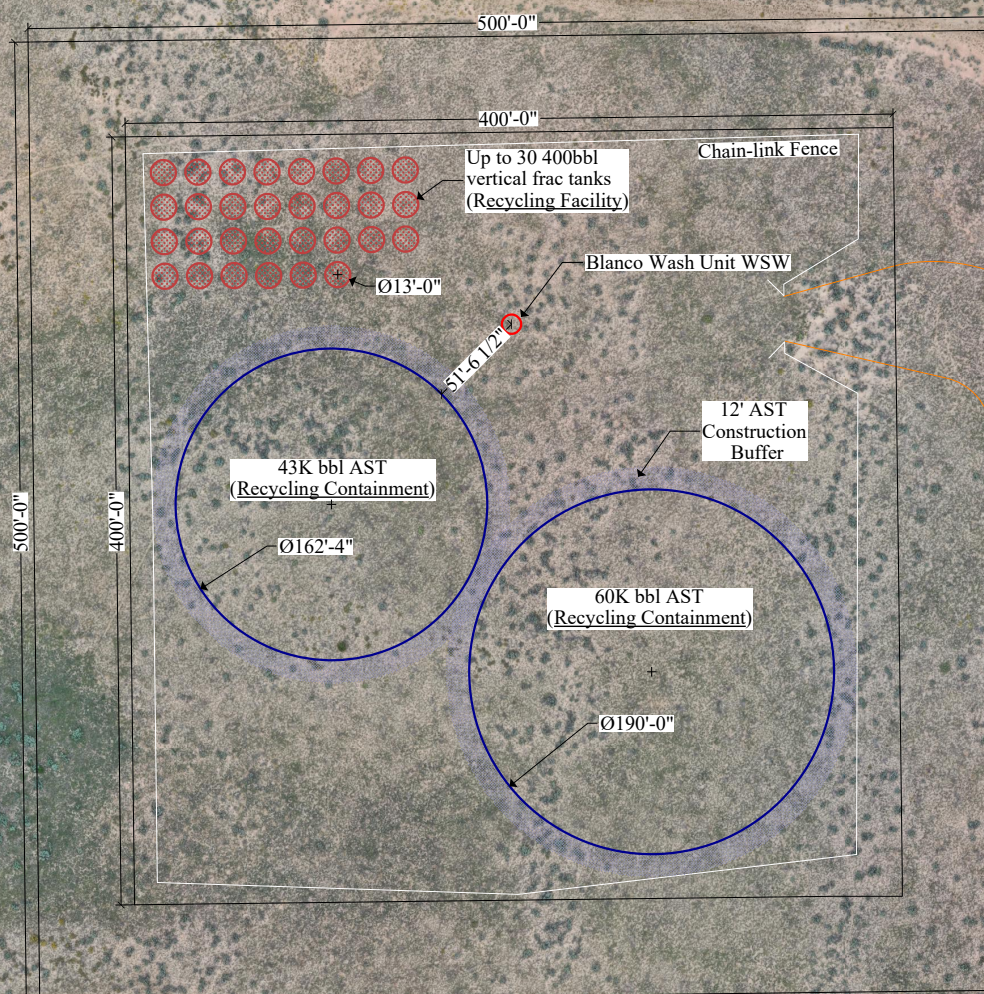
P.O. Box 3651  
Farmington, NM 87499  
Office: (505) 334-0408

DWG. No. : 11333-Directions		Revision: 1
Drawn by: A.A.D.	Date Drawn: 5/30/19	Rev. Date:
Surveyed: 4/13/19	App by: M.W.L.	Sheet: 1

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

B

**DJR Operating, LLC's Blanco Wash Unit Water Supply Well Pad Diagram  
for Use of One 43K BBL AST and One 60K BBL AST in the NE 1/4 of the SE  
1/4 of Section 24, T24N, R09W, NMPM San Juan County, New Mexico**



100'-0"

1" = 50' on 8.5 x 11 Actual Size

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

C

Form 3160-5  
(June 2015)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*5. Lease Serial No. **NMSF-078860**6. If Indian, Allottee or Tribe Name  
**N/A**7. If Unit of CA/Agreement, Name and/or No.  
**NMNM-137065A**8. Well Name and No. **Blanco Wash Unit WSW #1**

9. API Well No.

10. Field and Pool or Exploratory Area  
**Entrada**11. Country or Parish, State  
**San Juan County, New Mexico****SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other2. Name of Operator **DJR Operating, LLC**3a. Address **1 Road 3263, Aztec, NM 87410**3b. Phone No. (include area code)  
**505-632-3476**4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**At Surface: 1613 FSL, 712 FEL, I-Sec. 24-T24N, R9W****12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

DJR Operating, LLC requests approval for the installation of a Water Source Well location including Entrada water source well, (2) G tanks, well head, pumps and ancillary facilities to drill, operate and maintain the DJR Blanco Wash Unit WSW #1 Water Source Well for use as a source of completion water for future wells in DJR's permitted Blanco Wash Unit. Well is located in Sec. 24, T24N, R9W, San Juan Co., NM.

Attached is

- Plan of Development for the proposed project.
- Plats for site

All requests and actions per this sundry are within the permitted Blanco Wash Unit boundaries.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Paul Lehrman

Regulatory Specialist

Title

Signature

Date

03/25/2019

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date 1/12/2022

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

(Instructions on page 2)


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

D



# 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 
<hr/>									
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	Plug Date:		
Log File Date:	03/13/2024	PCW Rev Date:					Source:		Shallow
Pump Type:		Pipe Discharge Size:					Estimated Yield:		10 GPM
Casing Size:	4.75	Depth Well:				800 feet	Depth Water:		640 feet

<b>Water Bearing Stratifications:</b>		<b>Top</b>	<b>Bottom</b>	<b>Description</b>
		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

<b>Casing Perforations:</b>		<b>Top</b>	<b>Bottom</b>
		0	640
		640	670
		670	700
		700	800

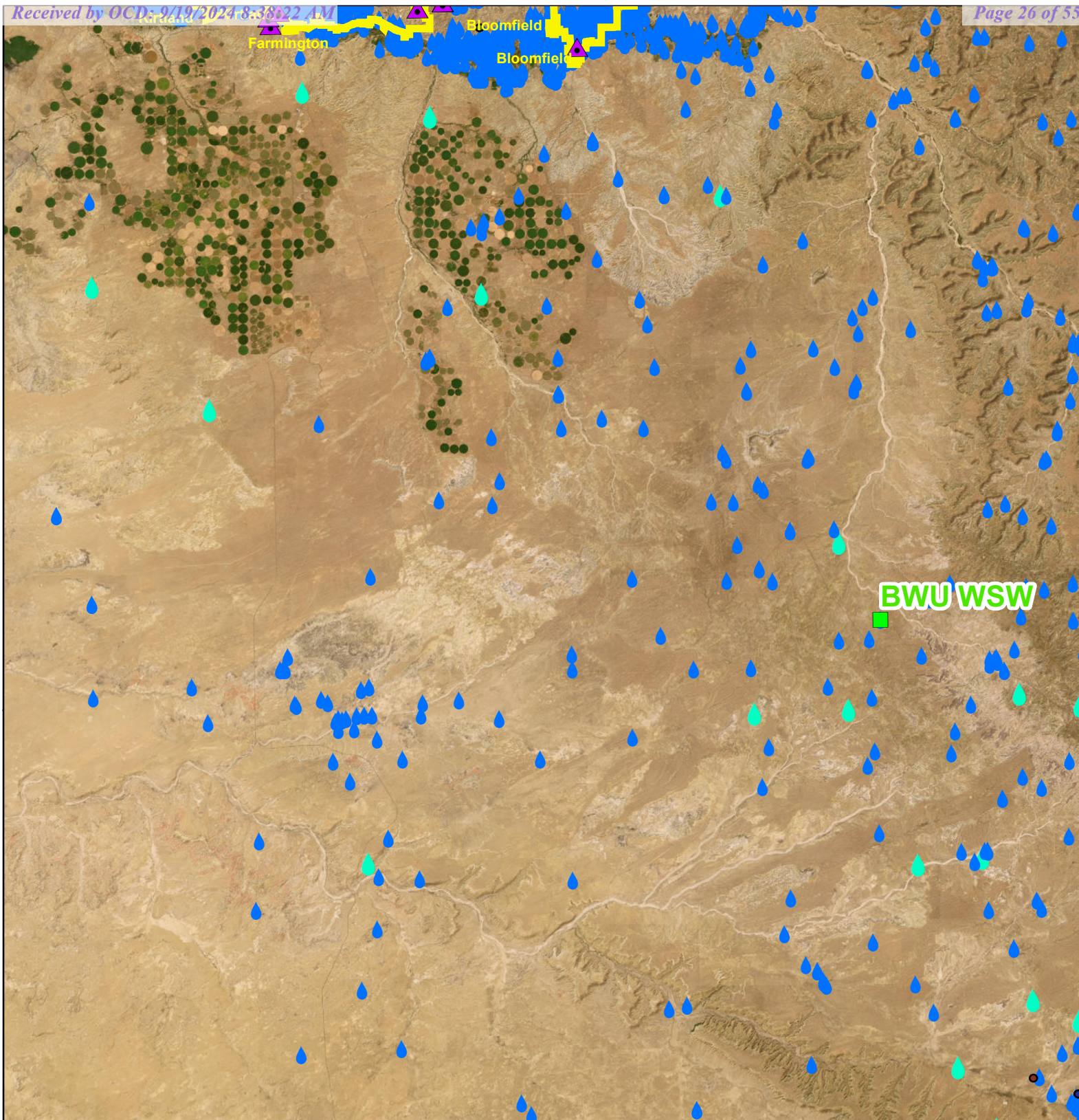
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/10/24 2:58 PM

POINT OF DIVERSION SUMMARY

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

E



## BWU WSW Containment Location Map1

### Siting Criteria

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



**ENDURING  
RESOURCES, LLC**



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

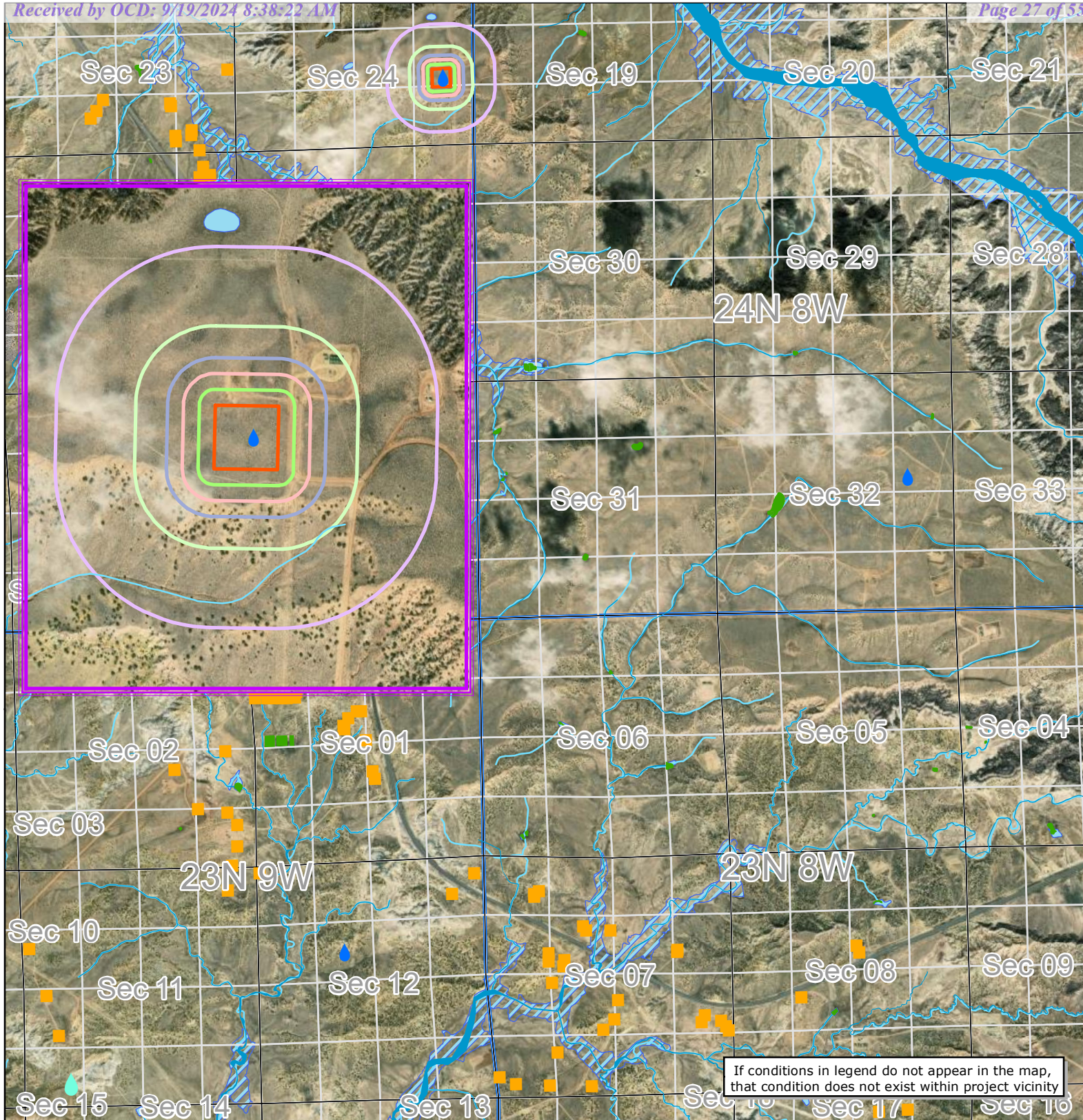
0 4 8 12 16 Miles

Released to Imaging: 9/24/2024 11:30:22 AM

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

Author: drogers

Date: 9/10/2024



## BWU WSW Staging Containment Location Map 2

### Siting Criteria

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

1 000 2 000 3 000 4 000 5 000 Feet

Released to Imaging: 9/24/2024 11:30:22 AM

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

Author: drogers

Date: 9/10/2024



**ENDURING  
RESOURCES, LLC**



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

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

F



7770 Jefferson Street NE, Suite 410  
Albuquerque, New Mexico 87109  
Tel 505.254.1115 Fax 505.254.1116  
www.swca.com

## AQUATIC RESOURCES DELINEATION TECHNICAL MEMORANDUM

**To:** Casey Haga, Enduring Resources IV, LLC

**From:** SWCA Environmental Consultants

**Date:** August 30, 2024

**Re:** **Enduring's Blanco Wash Unit Water Supply Well Pad Project in San Juan County, New Mexico, Aquatic Resources Delineation Technical Memorandum / SWCA Project No. 75253-105**

---

### 1. INTRODUCTION

SWCA Environmental Consultants (SWCA) was retained by Enduring Resources IV, LLC (Enduring), to complete an aquatic resources delineation survey, commonly referred to as a wetland delineation, and associated technical memorandum for a recycling containment facility associated with the Blanco Wash Unit Water Supply Well Pad Project (project) in San Juan County, New Mexico. The project area comprises 5.8 acres of land managed by the Bureau of Land Management Farmington Field Office. The project components consist of one well pad and an access road (project area) (see Figure A-1 in Appendix A). A survey area that consists of the project area plus a 200-foot buffer was evaluated for aquatic resources. The approximate center point of the survey area is at latitude 36.296699°, longitude -107.734317°.

The goal of conducting this aquatic resources delineation survey was to identify the potential presence and extent of features that may be jurisdictional waters of the United States (WOTUS) under Section 404 of the Clean Water Act (CWA) of 1972, as amended (*Federal Register* 88:61964). A delineation of aquatic resources includes the identification and recording of features if present, that may be determined to be WOTUS by the U.S. Army Corps of Engineers (USACE).

SWCA prepared this aquatic resources delineation technical memorandum, which summarizes aquatic resources desktop and field data, to support Enduring's application for permit or registration specific to 19.15.34 New Mexico Administrative Code (NMAC) via Form C-147. This technical memorandum serves as a record of existing aquatic resources that may be determined to be WOTUS, including wetlands and aquatic resources exhibiting an ordinary high-water mark (OHWM) in accordance with the USACE methods and guidance. The NMAC does not provide methods or guidance on determining watercourses or wetlands.

Regulatory considerations, survey methodology, survey results, and a summary are presented below.

## 2. Regulatory Considerations

### Waters of the United States

On September 8, 2023, the “Revised Definition of ‘Waters of the United States’” rule as amended (2023 Amended Rule) (*Federal Register* 88:61964) went into effect and is currently applicable in the State of New Mexico.

WOTUS regulations, including the current 2023 Amended Rule, do not clearly define the differences between flow duration regimes (i.e., ephemeral, intermittent, and perennial). Because the 2023 Amended Rule removes the former significant nexus test, we no longer have a tool to assess connectivity for certain features where continuous connectivity is questionable. Currently, the USACE is developing guidance for how districts will assess non-relatively permanent waters and non-adjacent wetland waters (*Federal Register* 88:61964).

In general, WOTUS 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 (U.S. Environmental Protection Agency 2024).

Wetlands are special aquatic sites defined by the USACE 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” (USACE 1987). To meet the basic definition of a wetland, an area must contain the following three parameters under normal circumstances: 1) the presence of wetland hydrology indicators showing regular inundation, 2) a dominance of hydrophytic (water-loving) vegetation, and 3) soil characteristics and indicators of frequent saturation (i.e., hydric soils) (USACE 1987).

SWCA evaluated the presence/absence and characteristics of field-delineated surface aquatic resources to develop a professional opinion of potential WOTUS jurisdiction based on the 2023 Amended Rule and current guidance received by the USACE Albuquerque District at the time this document was prepared. The USACE has the regulatory authority and discretion in determining the jurisdictional status of aquatic resources at a given site.

#### 19.15.34 New Mexico Administrative Code

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

A permit or registration, depending on the proposed activity, for recycling and reuse of produced water, drilling fluids, and liquid oil field waste including recycling containment is required via New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division's (NMOCD's) Form C-147.

Enduring is proposing recycling containment as part of the project, requiring compliance with 19.15.34.11 NMAC. As defined in 19.15.34.10(B) recycling containments may hold produced water for use in connection with drilling, completion, producing, or processing oil or gas or both. Such fluids may include fresh water, brackish water, recycled and treated water, fluids added to water to facilitate well drilling or completion, water produced with oil and gas, flowback from operations, water generated by an

oil or gas processing facility, or other waters that are gathered for well drilling or completion but may not include any hazardous waste. Form C-147 siting criteria require that a 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 pursuant to 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 ground water 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.

### 3. METHODOLOGY

The aquatic resources inventory included a desktop review of existing data and a field survey of the project area plus the 200-foot buffer as requested by Enduring (Haga 2024), as described below.

#### 3.1 Existing Data Review

A desktop review of existing publicly available data prior to the aquatic resources field survey was completed to evaluate surface aquatic resources within and adjacent to the proposed project area.

Sources reviewed included the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2016), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps (USFWS 2024), Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2024), Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2024a) and hydrologic soil groups (NRCS 2024b), historic and current aerial imagery of the project area (Google Earth Pro 2024), and the USGS Watershed Boundary Dataset (USGS 2021). SWCA used the USACE's Antecedent Precipitation Tool (Version 2.0.0) (USACE 2023) to evaluate the conditions leading up to, and during, the site visit relative to normal conditions, seasonality, and typical-year considerations.

#### 3.2 Field Survey

##### 3.2.1 Wetlands

The presence/absence of wetlands is determined in the field using delineation methods described in the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Regional Supplement) (USACE 2008a). Data at each potential wetland are recorded on Regional Supplement wetland

determination data forms (data sheets). Determination of wetland habitat type is based on the classification system developed by Cowardin et al. (1979). Wetland plant indicator status is based on the 2020 National Wetland Plant List (USACE 2020) for each species and is recorded on data sheets. Soil colors are identified using Munsell Soil Color Charts (Munsell Color 2010). Wetland boundaries are delineated where the three fundamental characteristics of hydrophytic vegetation, hydric soils, and hydrology are present.

### **3.2.2 Non-wetland Waters**

The presence and extent of non-wetland water features (e.g., streams, creeks, and ponds) was determined in the field using the guidance and methods provided in the USACE Regulatory Guidance Letter 05-05 (USACE 2005) and the USACE technical guidance, *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b). An OHWM is the line on a shore or bank established by fluctuations of water and is typically identified by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. The spatial extent of non-wetland waters was delineated using the identified OHWM for each feature.

For stream features exhibiting an OHWM, SWCA conducted a streamflow duration assessment in the field using *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 in the absence of long-term hydrologic data. Use of the SDAM may inform a range of activities where information on streamflow duration is useful, 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. The field delineation crews recorded the status of these five indicators on a field form for every surface water feature in the survey area with an OHWM.

### **3.2.3 Mapping**

A handheld GPS receiver set to submeter accuracy was used to record the spatial extent of features, geographically reference data points, and demarcate wetland and water body boundaries during the field survey. Geographic information system (GIS) software was used to analyze recorded features, calculate areas, and generate the survey area maps.

## **4. RESULTS**

### **4.1 Existing Data Review Results**

The project area is entirely within the Blanco Canyon watershed (Hydrologic Unit Code 1408010305) (USGS 2021). The entire survey area is within FEMA Flood Zone X, an area of minimal flood hazard. The survey area did not intersect FEMA-designated 100-year flood zones (area of special flood hazards). According to the existing data review, no NWI-mapped wetlands or NHD-mapped surface water features intersect the survey area (USFWS 2024; USGS 2016) (see Figure A-1 in Appendix A).

Hydric soils are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions (NRCS 2024b) and are one of the three fundamental characteristics of wetlands unless problematic conditions exist. There are no mapped soil units in the project area that are considered hydric (Table 1).

Enduring’s Blanco Wash Unit Water Supply Well Pad Project in San Juan County, New Mexico, Aquatic Resources Delineation Technical Memorandum

Table 1. Mapped Soil Units in the Survey Area

Soil Map Unit Name	Soil Map Unit Number or Symbol	Hydric	Total Acres in Survey Area	Percent of Survey Area
Doak-Sheppard-Shiprock association, rolling	DS	No	11.7	65.5%
Fruitland-Persayo-Sheppard complex, hilly	FX	No	6.2	34.5%
Total	–	–	17.8	100.0

Source: NRCS (2024a, 2024b)

Based on the results of the Antecedent Precipitation Tool (Product of 14), the project area experienced normal wetness conditions (Table 2) (USACE 2023). The survey was conducted during the dry season, and the drought index was rated as “mild drought.” Any wetland hydrology indicators observed during SWCA’s August 2024 field survey reflect those that would be expected in a typical year for this area.

Table 2. Antecedent Precipitation Tool Results for Survey Area

30 Days Ending	30th Percentile (inches)*	70th Percentile (inches)†	Observed (inches)‡	Wetness Condition§	Condition Value¶	Month Weight*	Product**
August 14, 2024	0.94	2.36	1.20	Normal	2	3	6
July 15, 2024	0.17	0.17	2.35	Wet	3	2	6
June 15, 2024	0.03	0.31	0.27	Normal	2	1	2
Result	14 (Normal)						

\* 30th percentile represents the lower limit of the 30-year normal range for the month.

† 70th percentile represents the upper limit of the 30-year normal range for the month.

‡ Observed: Total precipitation recorded during the month.

§ Wetness Condition: Observed value above 30-year normal range (wet), observed value less than 30-year normal range (dry).

¶ Condition Value: wet = 3, normal = 2, dry =1.

\* Month Weight: first 30-day period = 3, second 30-day period = 2, third 30-day period = 1.

\*\* Product: Antecedent Condition Calculation (condition value × month weight).

4.2 Field Results

The aquatic resources delineation survey was completed on August 14, 2024. At the time of the survey, construction of the well pad and access road had not begun.

4.2.1 Wetlands

SWCA did not observe or delineate any wetland features during the August 2024 field survey due to the lack of three-parameter wetlands within the survey area.

4.2.2 Non-wetland Waters

No potentially jurisdictional non-wetland waters containing an OHWM were identified within the survey area. The survey area encompasses a gently rolling upland dominated by upland plants (big sagebrush [*Artemisia tridentata*] and James' galleta [*Pleuraphis jamesii*]) (USACE 2020). Photographs of these upland areas are provided in Appendix B.

## **5. Summary**

Based on the regulatory considerations provided in Section 2, evaluation of the survey area, and SWCA's understanding of the USACE Albuquerque District's current policies regarding jurisdictional determinations, it is SWCA's professional opinion that per the 2023 Amended Rule, no features present within the survey area would be considered jurisdictional WOTUS by the USACE.

Pursuant to 19.15.34 NMAC, no OHWMs were observed within 200 feet of the project area. Therefore, no significant watercourse is likely to occur within 200 feet of the proposed recycling containment. Additionally, neither the project area nor the survey area intersect a FEMA 100-year flood zone.

The results and summary provided are based on SWCA's professional opinion. Only the USACE has final and legal authority for determining the presence of jurisdictional WOTUS and the extent of their boundaries. Only the NMOCD has final and legal authority for determining the presence of continuously flowing watercourses, significant watercourses, or wetlands and the extent of their boundaries for the purposes of permitting and/or registration applicable to 19.15.34 NMAC.

## LITERATURE CITED

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. Washington, D.C.: U.S. Fish and Wildlife Service.
- Federal Emergency Management Agency (FEMA). 2024. National Flood Hazard Layer. Available at: <https://www.fema.gov/national-flood-hazard-layer-nfhl>. Accessed August 2024.
- Google Earth Pro. 2024. Nageezi, New Mexico Region. October 15, 2023. Available at: <http://www.google.com/earth/index.html>. Accessed August 2024.
- Haga, Casey. 2024. Enduring Resources IV, LLC. Delineations request. Email communication.
- 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.
- Munsell Color. 2010. *Munsell Soil Color Charts: With Genuine Munsell Color Chips*. Grand Rapids, Michigan: Munsell Color.
- Natural Resources Conservation Service (NRCS). 2024a. Web Soil Survey. Available at: <https://websoilsurvey.nrcs.usda.gov/>. Accessed August 2024.
- . 2024b. National List of Hydric Soils. Available at: <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/hydric-soils>. Accessed August 2024.
- U.S. Army Corps of Engineers (USACE). 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineers Waterways Experiment Station.
- . 2005. *Regulatory Guidance Letter No. 05-05, Subject: Ordinary High Water Mark Identification*. Signed by Major General Don T. Riley, Director of Civil Works.
- . 2008a. *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.
- . 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*, edited by R.W. Lichvar and S.M. McColley. ERDC/CRREL TR-08-12. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center.
- . 2020. National Wetland Plant List, version 3.5. Available at: [https://cwbi-app.sec.usace.army.mil/nwpl\\_static/v34/home/home.html](https://cwbi-app.sec.usace.army.mil/nwpl_static/v34/home/home.html). Accessed August 2024.
- . 2023. Antecedent Precipitation Tool, Version 2.0.0. Available at: <https://www.usace.army.mil/Media/Announcements/Article/3450425/6-july-2023-usace-announces-the-availability-of-the-antecedent-precipitation-to/>. Accessed August 2024.

*Enduring's Blanco Wash Unit Water Supply Well Pad Project in San Juan County, New Mexico, Aquatic Resources Delineation Technical Memorandum*

---

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.

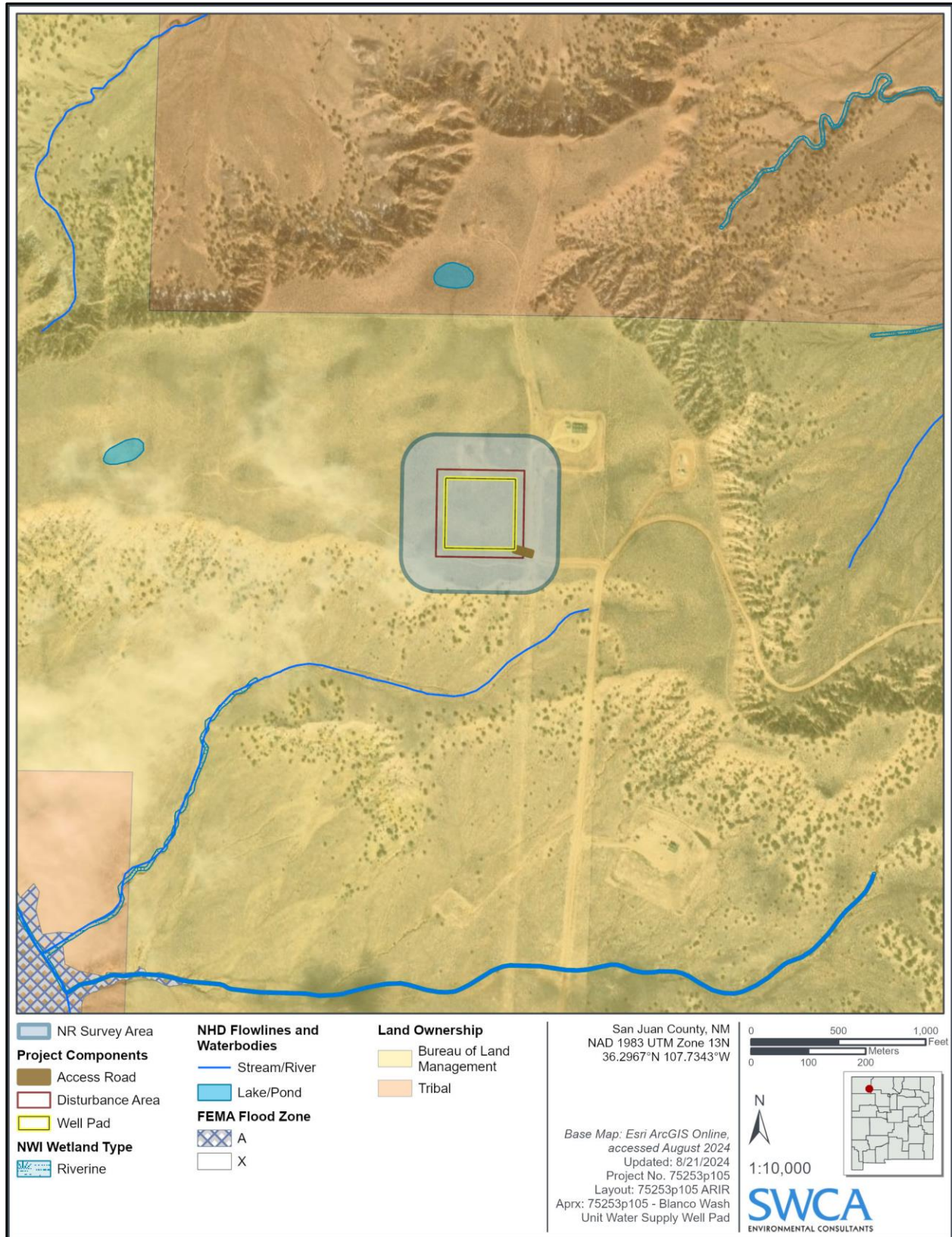
U.S. Fish and Wildlife Service (USFWS). 2024. National Wetlands Inventory. U.S. Fish and Wildlife Service Ecological Services. Available at: <https://www.fws.gov/program/national-wetlands-inventory>. Accessed August 2024.

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

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

**APPENDIX A**

**AQUATIC RESOURCES DELINEATION FIGURE**



**Figure A-1. Overview of desktop aquatic resources data and field-assessed aquatic resources data within the survey area.**

**APPENDIX B**  
**PHOTOGRAPHS**



**Photograph B-1. Overview of the upland landscape from the north edge of the edge of disturbance, facing north.**



**Photograph B-2. Overview of the upland landscape from the north edge of the edge of disturbance, facing east.**



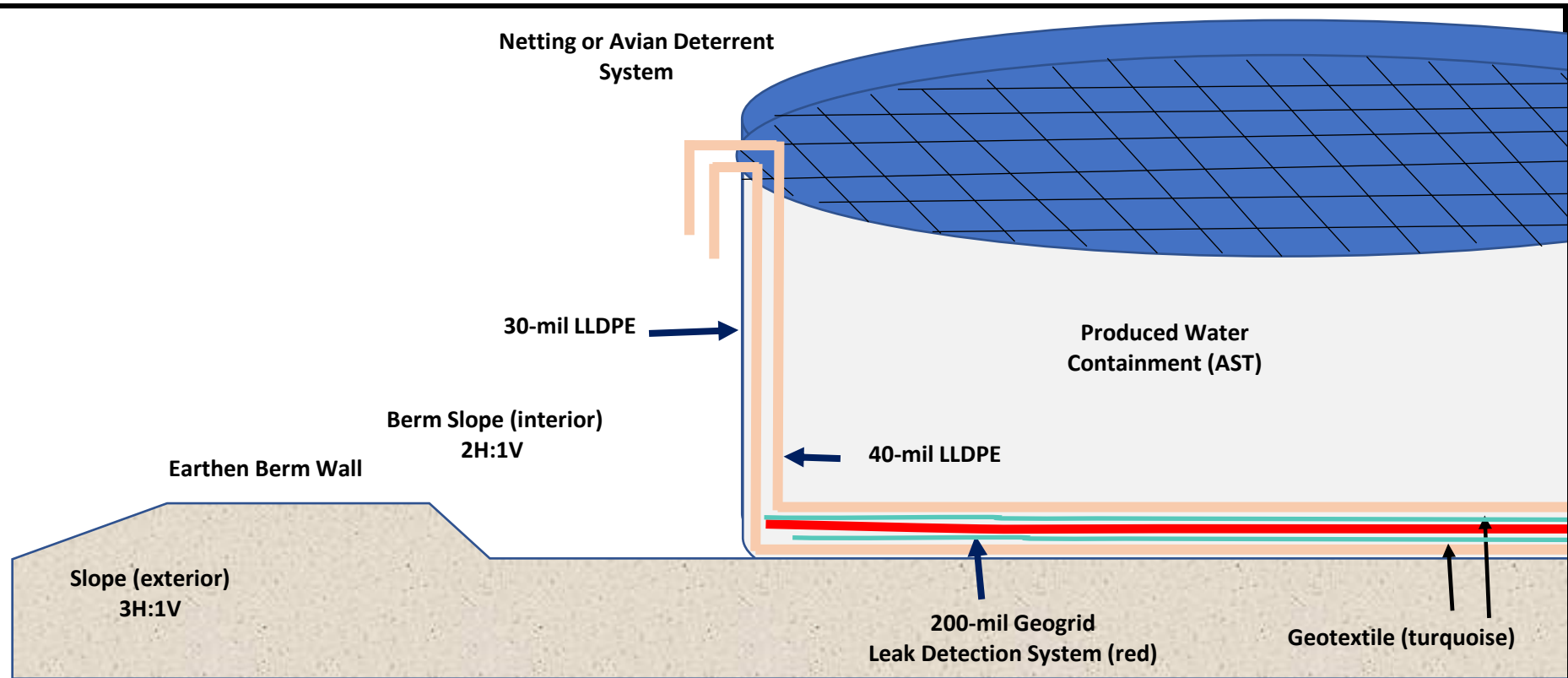
**Photograph B-3. Overview of the upland landscape from the north edge of the edge of disturbance, facing south.**



**Photograph B-4. Overview of the upland landscape from the north edge of the edge of disturbance, facing west.**

## **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

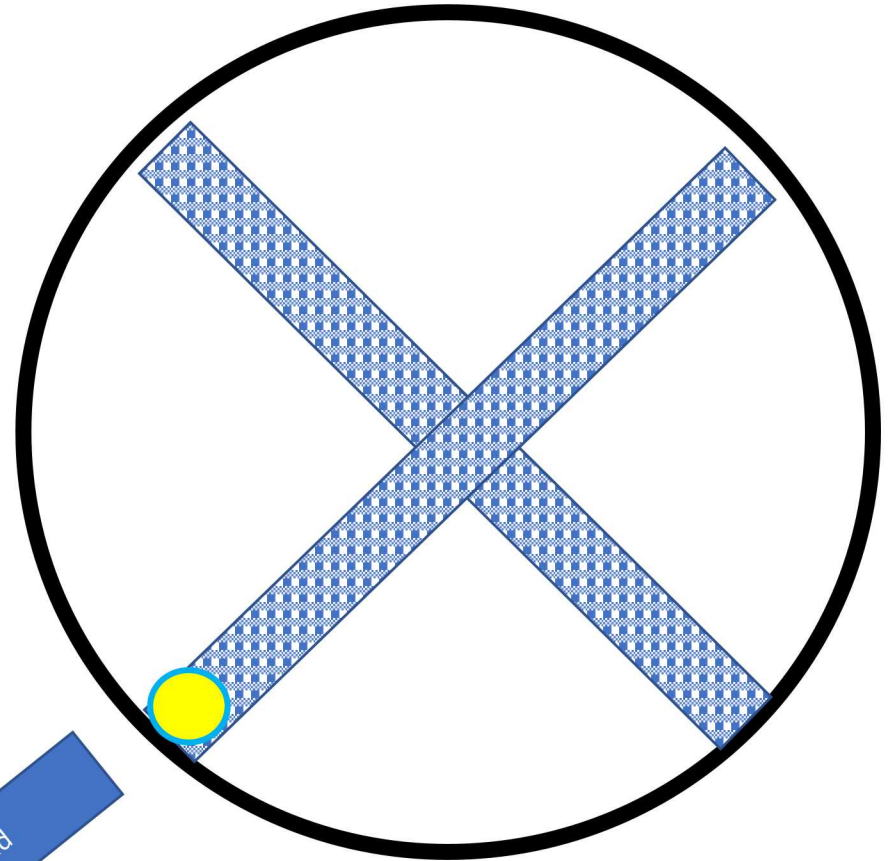
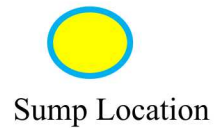
below 40-mil primary liner

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

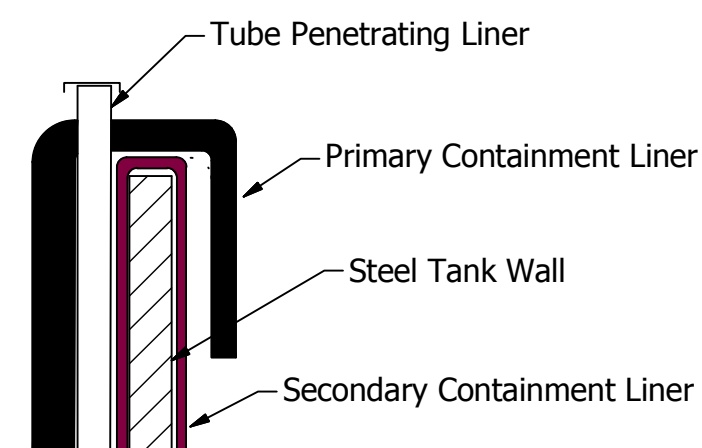
Layout of Geogrid Drainage Mat

Plate 1

WWS - New Mexico Produced Water Set Up

June 2021

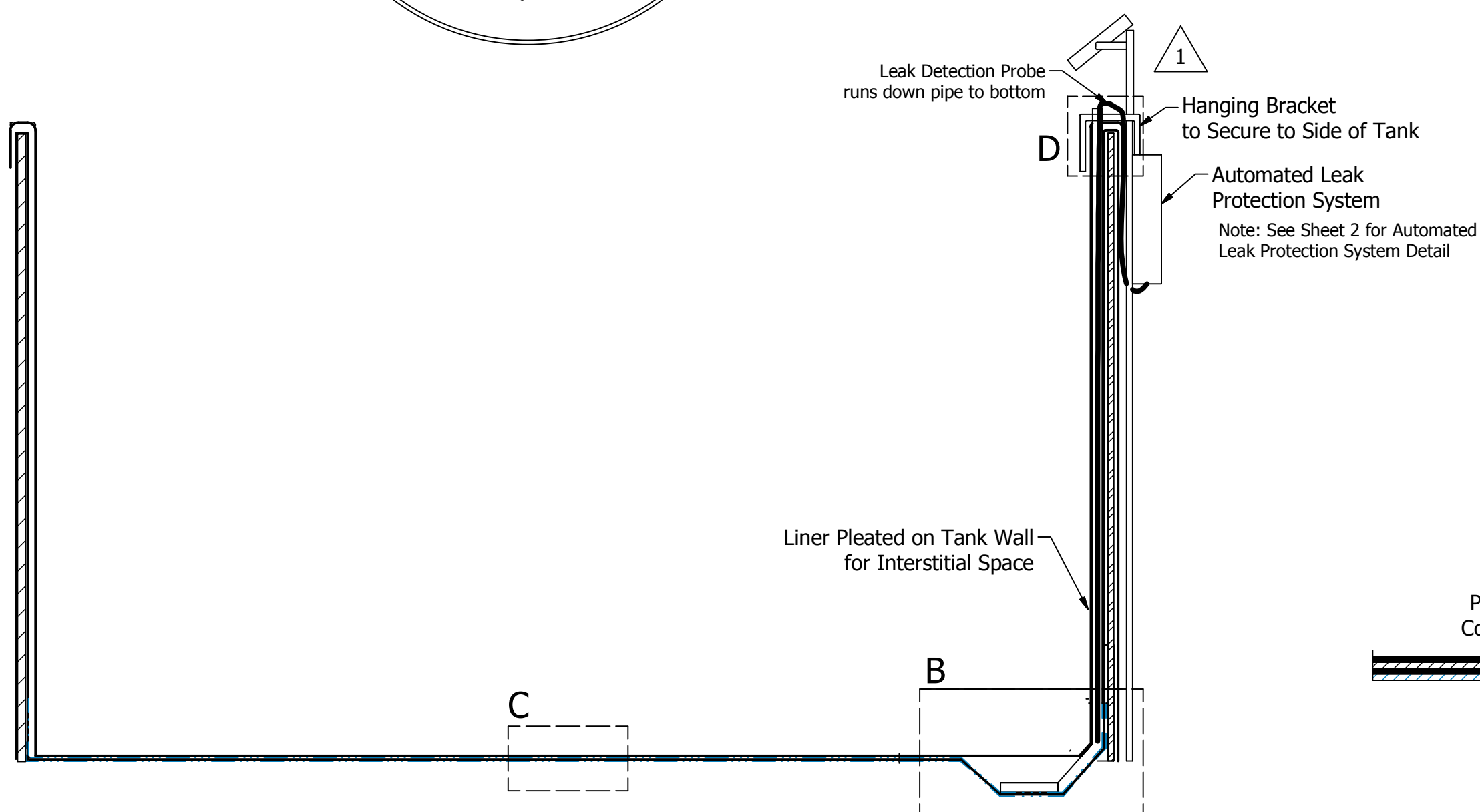
Diagram illustrating the layout of a circular tank. The tank is represented by a large circle. A vertical line runs through the center. A horizontal line runs through the center, with arrows at both ends pointing outwards, labeled 'A'. A rectangular 'X-shaped Sump' is located on the horizontal line, 5 feet from the tank wall. A triangle with the number '2' is shown near the sump.



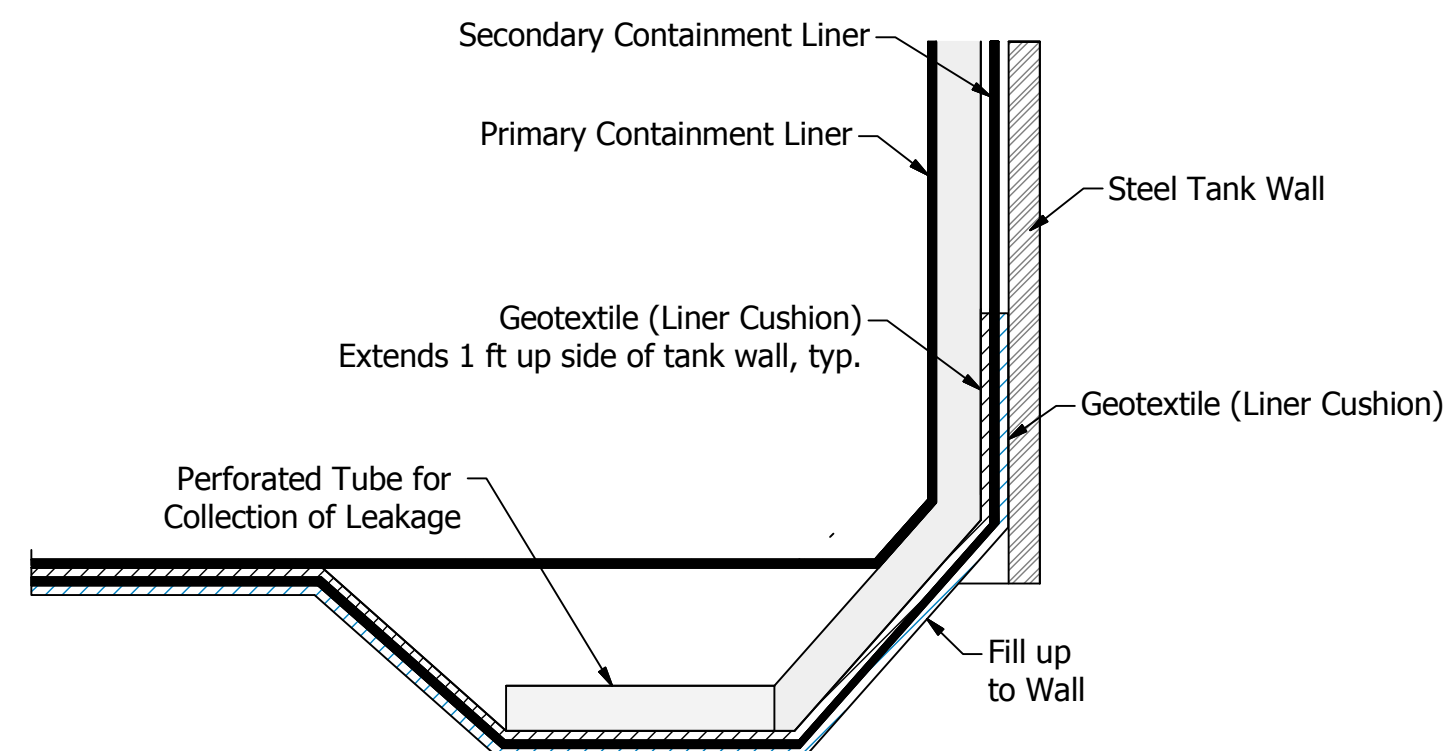
## SECTION D

### TUBE DETAIL

(Automated Leak Detection System Removed for Clarity)

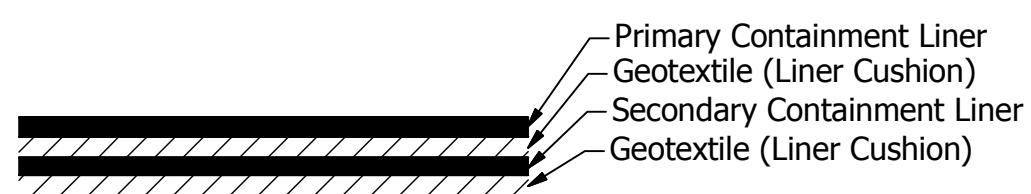


VIEW A-A  
TANK DETAIL



## SECTION B

### SUMP DETAIL




## SECTION C

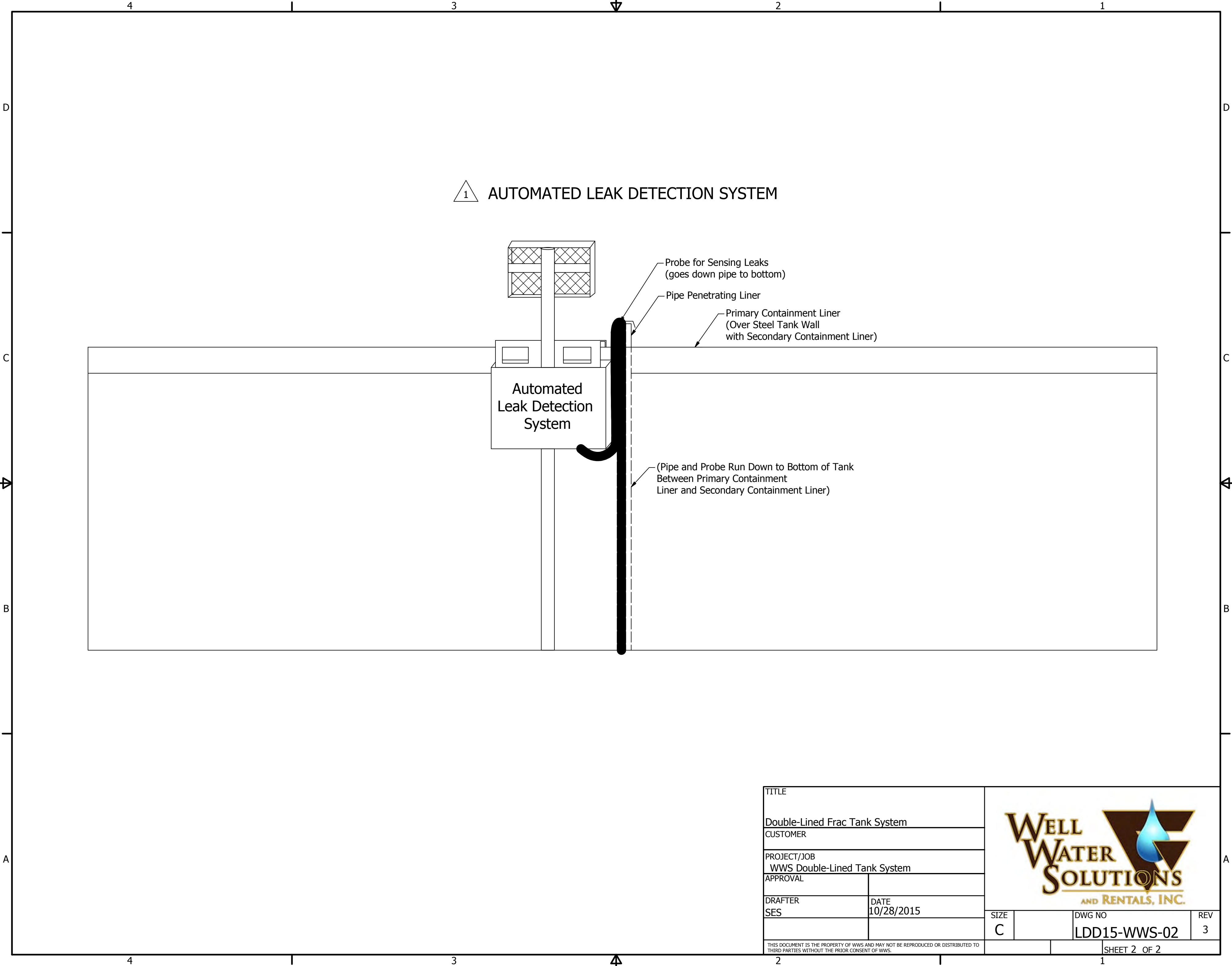
### LINER DETAIL




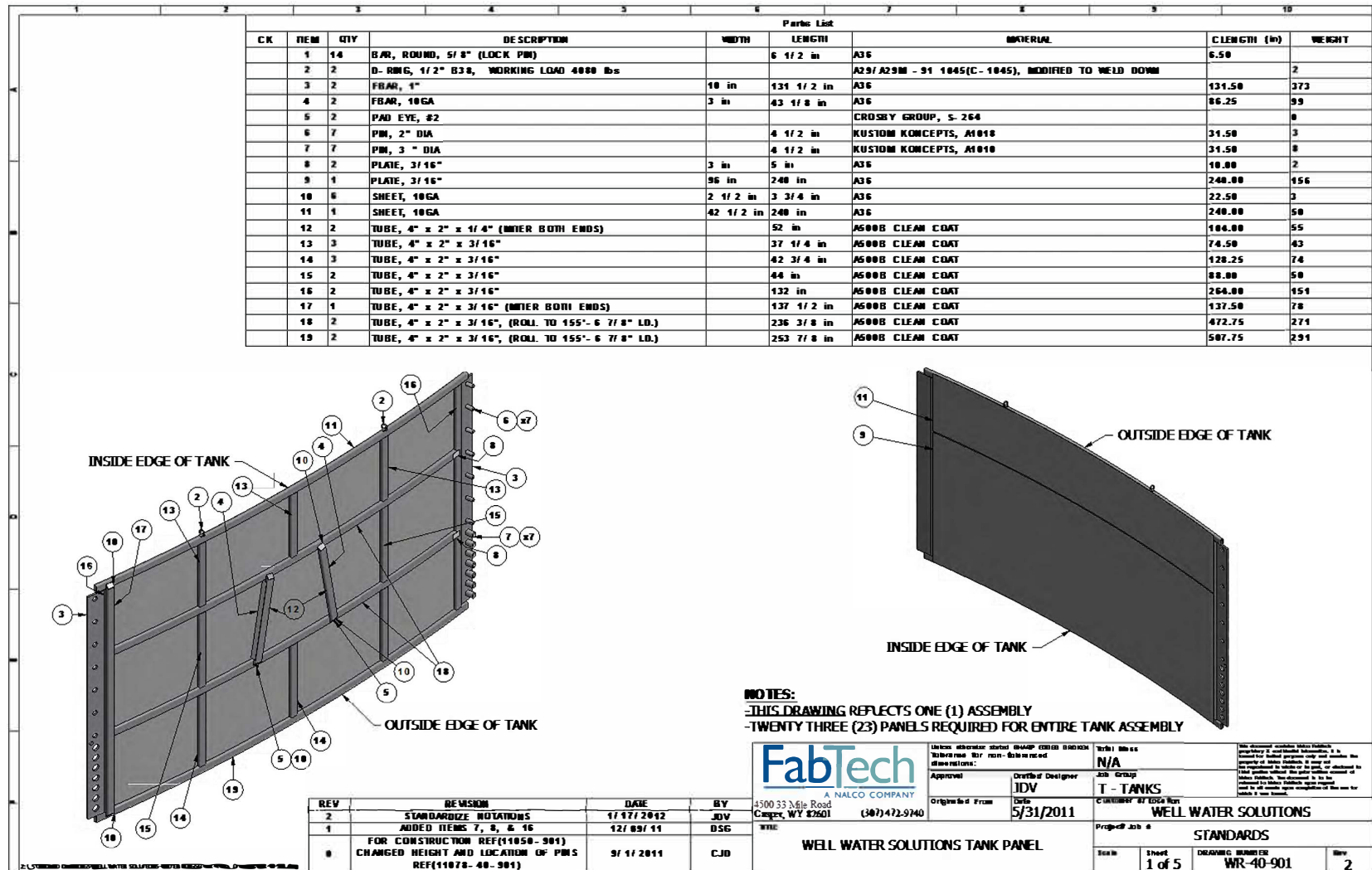
**LUCID**  
**DRAFTING & DESIGN LLC**  
sarah@luciddrafting.com 307.752.7388

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	

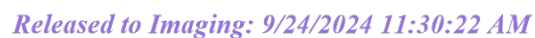
TITLE				<div> <div>SIZE</div> <div>C</div> </div> <div> <div>DWG NO</div> <div>LDD15-WWS-02</div> </div> <div> <div>REV</div> <div>3</div> </div>	
Double-Lined Frac Tank System					
CUSTOMER					
PROJECT/JOB WWS Double-Lined Tank System					
APPROVAL					
DRAFTER SES	DATE 10/28/2015				
THIS DOCUMENT 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	



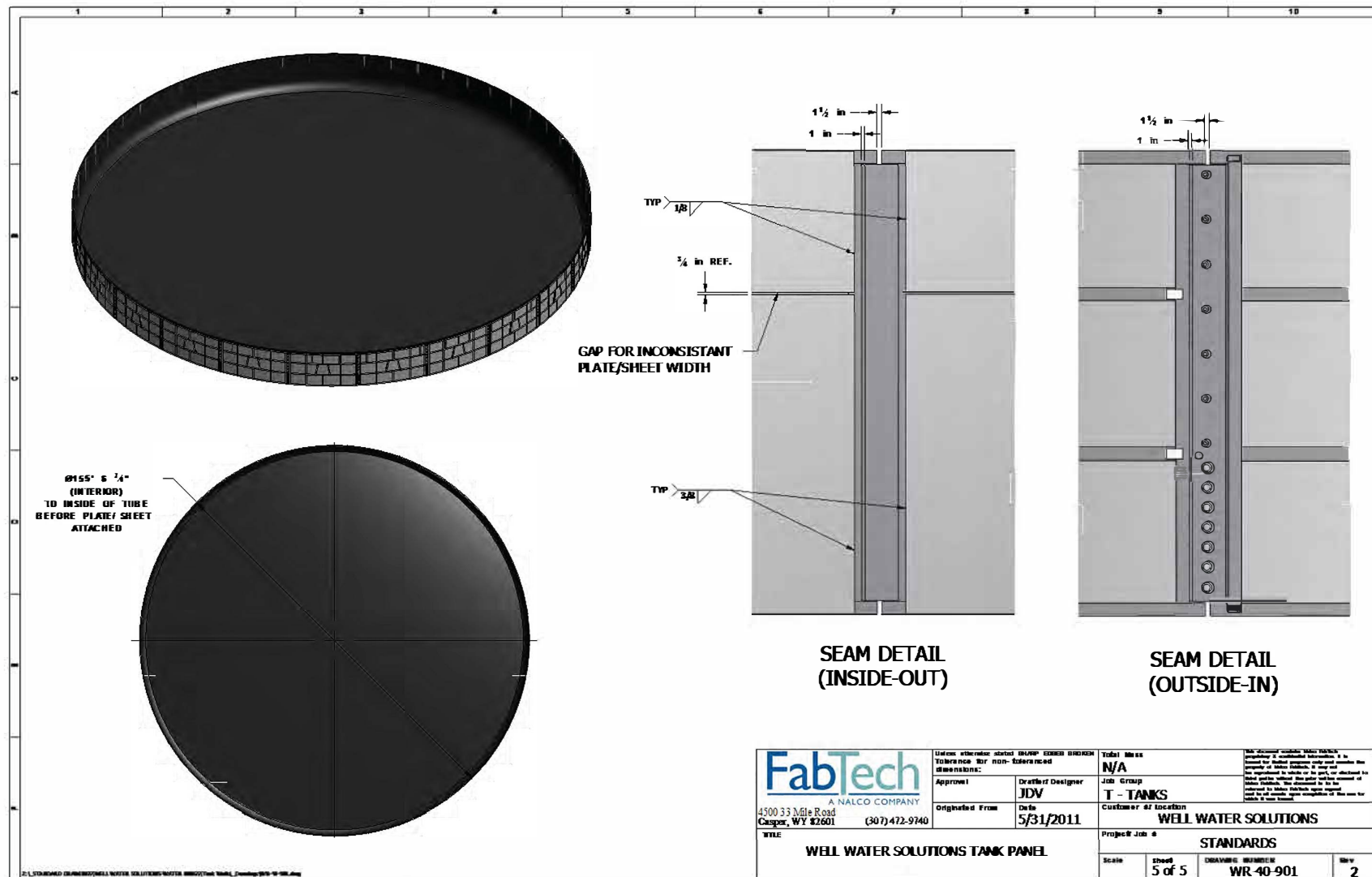
TITLE						
Double-Lined Frac Tank System						
CUSTOMER						
PROJECT/JOB						
WWS Double-Lined Tank System						
APPROVAL						
DRAFTER		DATE		SIZE	DWG NO	REV
SES		10/28/2015				
				C	LDD15-WWS-02	3
THIS DOCUMENT IS THE PROPERTY OF WWS AND MAY NOT BE REPRODUCED OR DISTRIBUTED TO THIRD PARTIES WITHOUT 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 Blanco Wash Unit Water Supply Well Pad  
Recycling Containment and Recycling Facility Variance Request for  
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 self-contained free-standing structures 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 LLPDE 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.

Thank you,

Dave Brown  
Regulatory Manager  
Enduring Resources, LLC.  
303.887.3695 – Office  
505.636.9731 – Cell

**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 384959

CONDITIONS

Operator:  DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID:  371838
	Action Number:  384959
	Action Type:  [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	3RF-77 - BLANCO WASH UNIT WATER SUPPLY WELL PAD FACILITY [fVV2426834724] permit expires on September 19, 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 August 19, 2029. • [371838] DJR OPERATING, LLC shall construct, operate, maintain, close, and reclaim 3RF-77 - BLANCO WASH UNIT WATER SUPPLY WELL PAD FACILITY [fVV2426834724] 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-77 - BLANCO WASH UNIT WATER SUPPLY WELL PAD FACILITY [fVV2426834724].	9/24/2024