C-147 REGISTRATION PACKAGE

North Alamito Unit Water Supply Well Pad

July 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): **North Alamito Unit Water Supply Well**

OCD Permit Number: 3RF-73 (For new facilities the permit number will be assigned by the district office)

U/L or Qtr/Qtr **G** Section **31** Township **23N** Range **7W** County: **Sadoval**

Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☒ **Recycling Facility:**

Location of recycling facility (if applicable): Latitude **36.186551** Longitude **-107.614952** 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 **36.186551** Longitude **-107.614952** 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: **100,000** bbl Dimensions: Radius **95' for 60K AST and 78' for 40K AST** 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 _____**Existing 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	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; written approval obtained from the municipality	☐ Yes ☒ No ☐ NA
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	☐ Yes ☒ No
Within a 100-year floodplain. FEMA map	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No

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 C 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 G 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: 0**7/08/24**
e-mail address: **hhuntington@enduringresources.com** Telephone: **505-636-9751**

11.
OCD Representative Signature: Victoria Venegas **Approval Date:** 08/14/2024
Title: Environmental Specialist **OCD Permit Number:** 3RF-73

☒ OCD Conditions
☐ Additional OCD Conditions on Attachment

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1. INTRODUCTION

Applicant	DJR Operating, LLC - Enduring Resources, LLC & DJR Operating, LLC are wholly owned subsidiaries of Enduring Resources, LLC. Leases, rights of ways, wells, and other property interests will continue to be held in their current entity names.
OGRID	371838
Project Name	North Alamito Unit Water Supply Well Pad
Project Type	Recycling Facility & Recycling Containment
Legal Location	Southwest ¼ of the Northeast ¼, Northwest ¼ of the Northeast ¼, Southeast ¼ of the Northwest ¼, and Northeast ¼ of the Northwest ¼ of Section 31, Township 23N, Range 07W
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 North Alamito Unit Water Supply Well Pad (NAU WSW) Recycling Containment and Recycling Facility through the approval of this C-147 registration and permit package.

The recycling containment will consist of two above ground storage tanks (AST), one 60,000 barrel (bbl) and one 40,000 bbl, for a combined volume of 100,000 barrels. 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 two 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 treatment (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 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 NAU WSW site is located at 36.186551° N, -107.614952° W, within Section 31, Township 23N, Range 07W, in Sandoval 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.

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 the 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 containments 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 SJ-00949 S in the Southwest ¼ of the Northeast ¼ of Section 1, Township 22N, Range 08W. This water well was drilled to a total depth of 2,647 feet with depth to ground water measured at 1,106 feet. This water well is located approximately 7,600 feet southwest of the NAU WSW pad. With the proposed containments being ASTs on ground surface, the groundwater depth is greater than 50 feet below the bottom of the recycling containments. See Exhibit D for the water well summary. Additional average depth to ground water information can be found below for the nearest four townships.

Average, Minimum, and Maximum depth to ground water within T23N R07W = 540’, 180’, 900’
Average, Minimum, and Maximum depth to ground water within T23N R08W = 203’, 40’, 290’
Average, Minimum, and Maximum depth to ground water within T22N R07W = No well data.
Average, Minimum, and Maximum depth to ground water within T23N R08W = 705’, 220’, 1106’

The water well with a depth to ground water at 40’ is located over 25,000-feet northwest in Section 1, Township 23N, Range 08 West.

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.

There are two mapped USGS blue line drainages within 200 feet of the well pad area as seen in Exhibit E Map 2. These drainages were found to be non-jurisdictional and non-significant in the two environmental reports described below. Thus, there are no significant drainages within 200 feet of the recycling containment.

In the Environmental Assessment document with NEPA No. DOI-BLM-NM-F010-2014-0120, both drainages were found to be non-jurisdictional per the Army Corps of Engineers regulations in 2014. This document is publicly available on BLM’s E-Planning web database.

> *The analysis area was surveyed for the presence of jurisdictional wetlands and other waters of the U.S. Waters of the U.S. and other wetlands are regulated by the U.S. Army Corps of Engineers. Three intermittent “blue-lines,” as shown on the USGS National Hydrography Dataset, are located within the analysis area. These drainages were determined to be non-jurisdictional, as no existing evidence of defined bed and bank features, scour, or deposition processes were observed.*

DJR contracted SWCA Environmental Consultants in April of 2024 to again assess these drainages per 19.15.34.11 A.(2) NMAC. In the report provided to DJR titled, *Aquatic Resources Inventory Report for Enduring Resources IV, LLC’s North Alamito Unit WSW No. 7 Project, Sandoval County, New Mexico*. SWCA Summarized the following regarding these drainages. This report is attached hereto as Exhibit F:

SWCA did not observe continuously flowing watercourses or wetlands within 500 feet of the proposed recycling containment. SWCA's professional opinion is that the proposed location of the recycling containment meets the requirements of 19.15.34 NMAC because there are no streams with ordinary high-water marks within 200 feet.

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) is referenced above in subsection 2.1 at 7600 feet away. Nearest spring/seep according to the National Hydrologic Dataset (NHD) is 3.97 miles North.

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 Cuba New Mexico over 38 miles east-southeast.

2.6. Distance to Wetland 19.15.34.11 A.(6)

The recycling facility/containment is not located within 500 feet of a wetland per the evidence provided below. According to the US Fish and Wildlife Service National Wetland Inventory (NWI) shown in Exhibit E Map 2, the proposed site is located within 500 feet of two drainages that have been mapped as "Riverine" with classification code: R4SBJ. Please see decoded description below from US Fish and Wildlife Service and follow up describing why this is not a wetland.

R4SBJ:

System **Riverine (R)** : The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Subsystem **Intermittent (4)** : This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

Class **Streambed (SB)** : Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.

Water Regime **Intermittently Flooded (J)** : The substrate is usually exposed, but surface water is present for variable periods without detectable seasonal periodicity. Weeks, months, or even years may intervene between periods of inundation. The dominant plant communities under this Water Regime may change as soil moisture conditions change. **Some areas exhibiting this Water Regime do not fall within our definition of wetland because they do not have hydric soils or support hydrophytes. This Water Regime is generally limited to the arid West.**

The data used and displayed near the project area on the US Fish and Wildlife Service Wetland Inventory was mapped as described in the San Juan, Estancia Basin, and Sante Fe County, NM - Supplemental Map Information document as follows:

> All feature creation and attribution was completed with on-screen digitization procedures using Esri, ArcGIS Pro 2.7.0, and ArcMap 10.7.1, with advanced editing tools.
>
> *The wetland mapping of this project involved an area-wide inventory of wetlands and non-wetland riparian habitats using 2018, year color infrared and true-color aerial imagery. Fieldwork review was conducted for the purpose of verification of wetland features and non-wetland features and a "selective key" of photo-signatures was created. This baseline information served as a guide for identifying and classifying features (as interpreted from the project imagery) within the NWI (version 2.0), and the Landscape Position Landform Water Flow Path and Water Body Type (LLWW, version 2) Classification Systems.*

Since the Wetlands Inventory is identified and mapped from a desktop perspective utilizing photo-signatures the resulting data is a desktop approximation of potential wetlands and non-wetland riparian habitat. Thus, field investigation is necessary to confirm or deny wetland status based on the presents of hydric soils or support hydrophytes. Riparian habitat in this region would be indicated by cottonwood, willow, elm, invasive salt cedar and russian olive.

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. The drainages have no defined bed and bank and no isolated pockets or pools to hold water. Water is present in the drainage only during significant inclement weather events and is void of standing water thereafter. Vegetation in and along the drainage was typical of the surrounding shrubland habitat comprised of sagebrush, blue grama grass, and galleta grass being most prominent. There was no vegetative transition to wetland species near or along the drainage. Please see Table 1 below and associated photographs of the subject drainages. The data in Table 1 and photos were provided to DJR by SWCA as a result of their field investigations. The full report is available in Exhibit F.

Below is SWCAs summary regarding these drainages:

> *SWCA did not observe continuously flowing watercourses or wetlands within 500 feet of the proposed recycling containment. SWCA's professional opinion is that the proposed location of the recycling containment meets the requirements of 19.15.34 NMAC because there are no streams with ordinary high-water marks within 200 feet.*

TABLE 1. SUMMARY OF NON-WETLAND WATER FEATURES, TOTAL ACREAGE, AND TOTAL LINEAR FEET OF FEATURES WITHIN THE SURVEY AREA

SWCA Unique Identifier	**Coinciding Mapped NHD Feature Type**	**OHWM Present (Yes/No)**	NWI-Mapped Wetland Classification	**FEMA Flood Zone**	**Latitude, Longitude**	**Total Acres of OHWM within Survey Area**	**Total Linear Feet of OHWM within Survey Area**
ST01	Stream/river	No	R4SBJ	Zone X	36.187415, −107.616342	N/A	N/A
ST02	Stream/river	No	N/A	Zone X	36.185661, −107.614238	N/A	N/A

N/A = not applicable
Zone X = area of minimal flood hazard.

FIGURE 1. OVERVIEW OF ST01, AN NHD- AND NWI-MAPPED FEATURE NOT CONTAINING AN OHWM, FACING UPSTREAM (NORTH).

FIGURE 2. OVERVIEW OF ST01AN NHD- AND NWI-MAPPED FEATURE NOT CONTAINING AN OHWM, FACING DOWNSTREAM (SOUTH).

FIGURE 3. OVERVIEW OF ST02, AN NHD-MAPPED FEATURE NOT CONTAINING AN OHWM, FACING UPSTREAM (NORTH).

FIGURE 4. OVERVIEW OF ST02, AN NHD-MAPPED FEATURE NOT CONTAINING AN OHWM, FACING DOWNSTREAM (SOUTH).

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 7W, Sandoval County, New Mexico. See Exhibit E Map 1 showing mines near the project area. The nearest EMNRD permit is a Humate pit approximately 12.74 miles south-southwests.

2.8. Site Stability 19.15.34.11 A.(8)

The recycling containment is 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 trucks 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 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 1.1 miles 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 containments at the NAU WSW Facility. 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 are constructed on DJR's existing NAU WSW pad. The water supply well is existing and in production. The two proposed ASTs are on location and to date, have stored only entrada water. DJR is proposing to treat and store produced water from the surrounding area.

Each AST containment has 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 liner to reduce localized stress-strain or protuberances that otherwise may compromise the liner's integrity. The containments are above ground and are not subject to water run-on.

3.2. Liner and Leak Detection

The containments at the facility are Well Water Solutions and Rentals, Inc. double-lined frac water tank systems. 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 tanks. 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 seams, the liners overlap 4 to 6 inches and are thermally sealed. Field seams are avoided or minimized in corners and irregularly shaped areas. At a point 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 each containment and consists of a 200-mil geonet drainage layer. The leak detection system covers the bottom and sides of the containments 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 containments being above ground tanks.

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. See below sign on location.

3.4. Entrance Protection

The NAU WSW pad has an existing 6-foot chain link fence around location with dual 12-foot gates at the entrance to location to restrict unauthorized entrance to location. Additionally, with the recycling containment being above ground tanks, there is no risk to wildlife or the public as there would be for an earthen pit. 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 each containment. 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 containments 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 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.
- 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 NAU WSW recycling facility. 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 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 containment 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 each containment 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 2. 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 reclamation plan attached to the Lybrook G31-2307 #1H approved APD. This reclamation plan was developed with, and approved by, the surface managing agency.

EXHIBIT A. PLAT

WELL FLAG
LATITUDE: 36.186551° N
LONGITUDE: 107.614952° W
DATUM: NAD83

DJR OPERATING, LLC
NORTH ALAMITO UNIT WSW #7

1478' FNL & 2486' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 31,
T23N, R7W, N.M.P.M.,
SANDOVAL COUNTY, NEW MEXICO
GROUND ELEVATION: 6999.8', NAVD 88
FINISHED PAD ELEVATION: 7000.0', NAVD 88

50' 0 50' 100'
SCALE = 100'

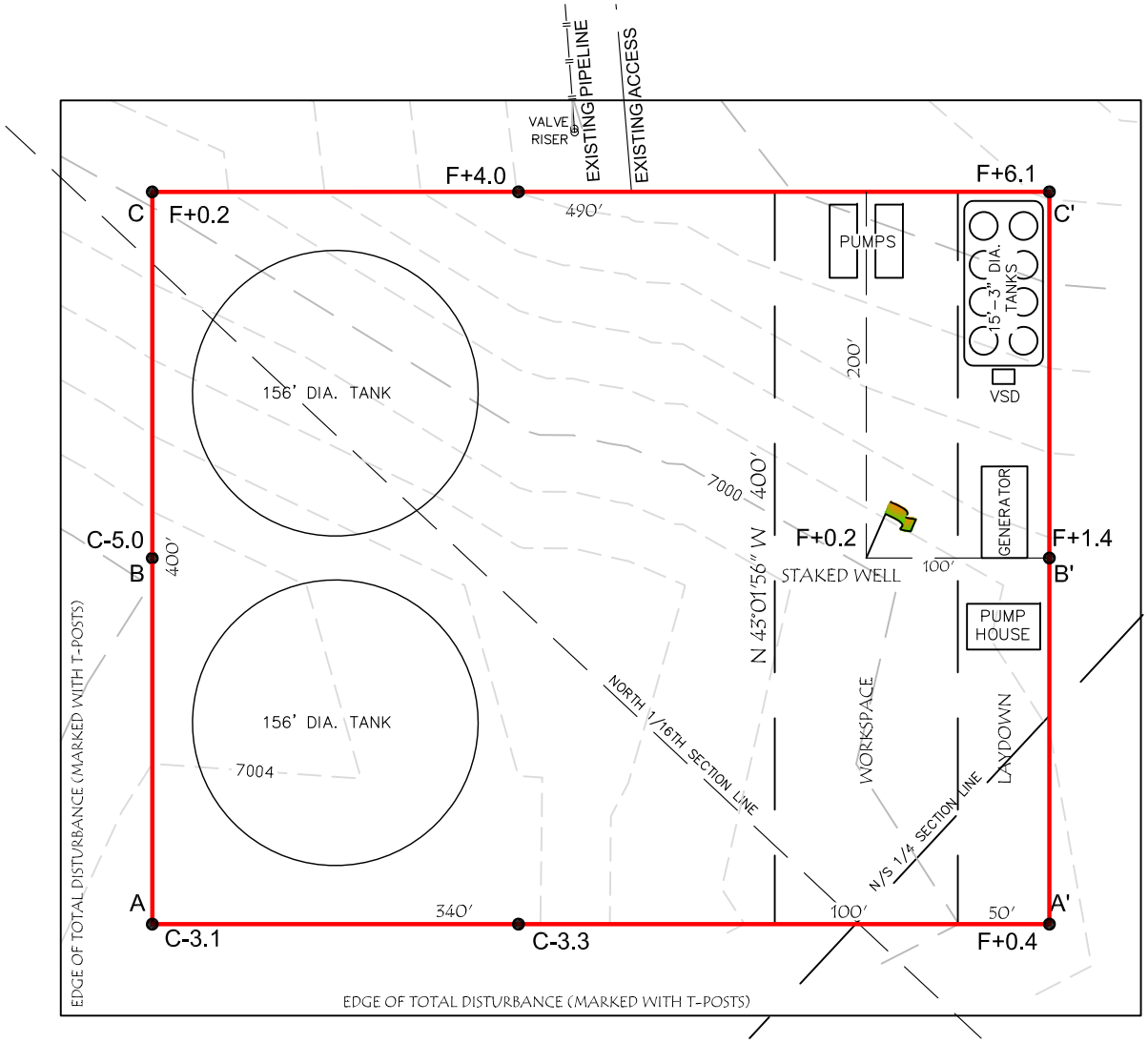
NOTES:

1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 23 NORTH, RANGE 7 WEST, N.M.P.M. SANDOVAL COUNTY, NEW MEXICO. LINE BEARS: N 00°10'37" W A DISTANCE OF 5321.44 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.



TOTAL PERMITTED AREA
500' x 590' = 6.77 ACRES
SCALE: 1" = 100'
DATE: 04/19/19
DRAWN BY: GRR

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

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.

DJR OPERATING, LLC

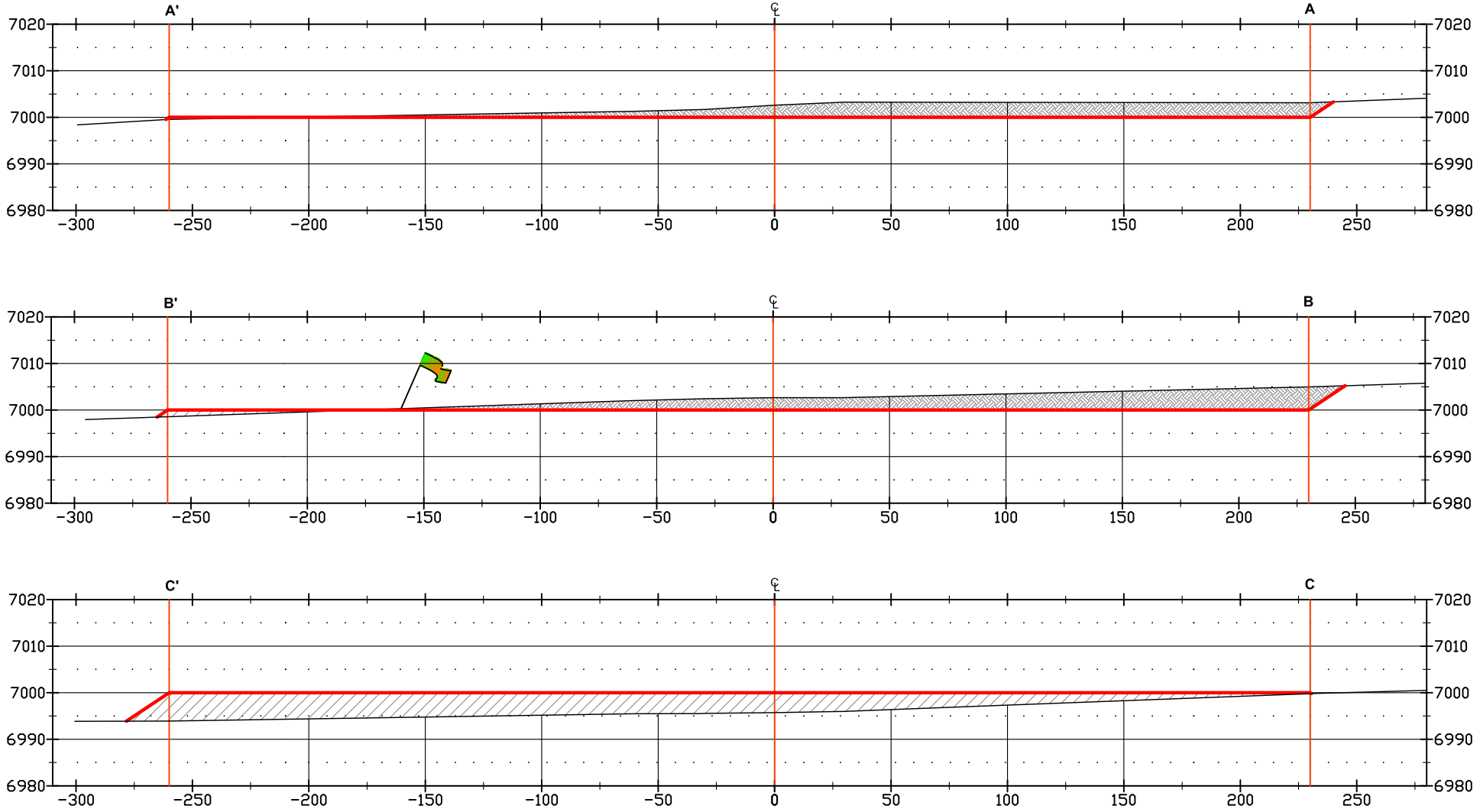
CCI
CHENAULT CONSULTING INC.
4800 COLLEGE BLVD.
SUITE 201
FARMINGTON, NM 87402
(505)-325-7707

WELL FLAG
LATITUDE: 36.186551° N
LONGITUDE: 107.614952° W
DATUM: NAD83

DJR OPERATING, LLC
NORTH ALAMITO UNIT WSW #7

1478' FNL & 2486' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 31,
T23N, R7W, N.M.P.M.,
SANDOVAL COUNTY, NEW MEXICO
GROUND ELEVATION: 6999.8', NAVD 88
FINISHED PAD ELEVATION: 7000.0', NAVD 88

THIS DIAGRAM IS AN ESTIMATE OF DIRT BALANCE AND IS NOT INTENDED TO BE AN EXACT MEASURE OF VOLUME



DJR OPERATING, LLC

FILL

CUT

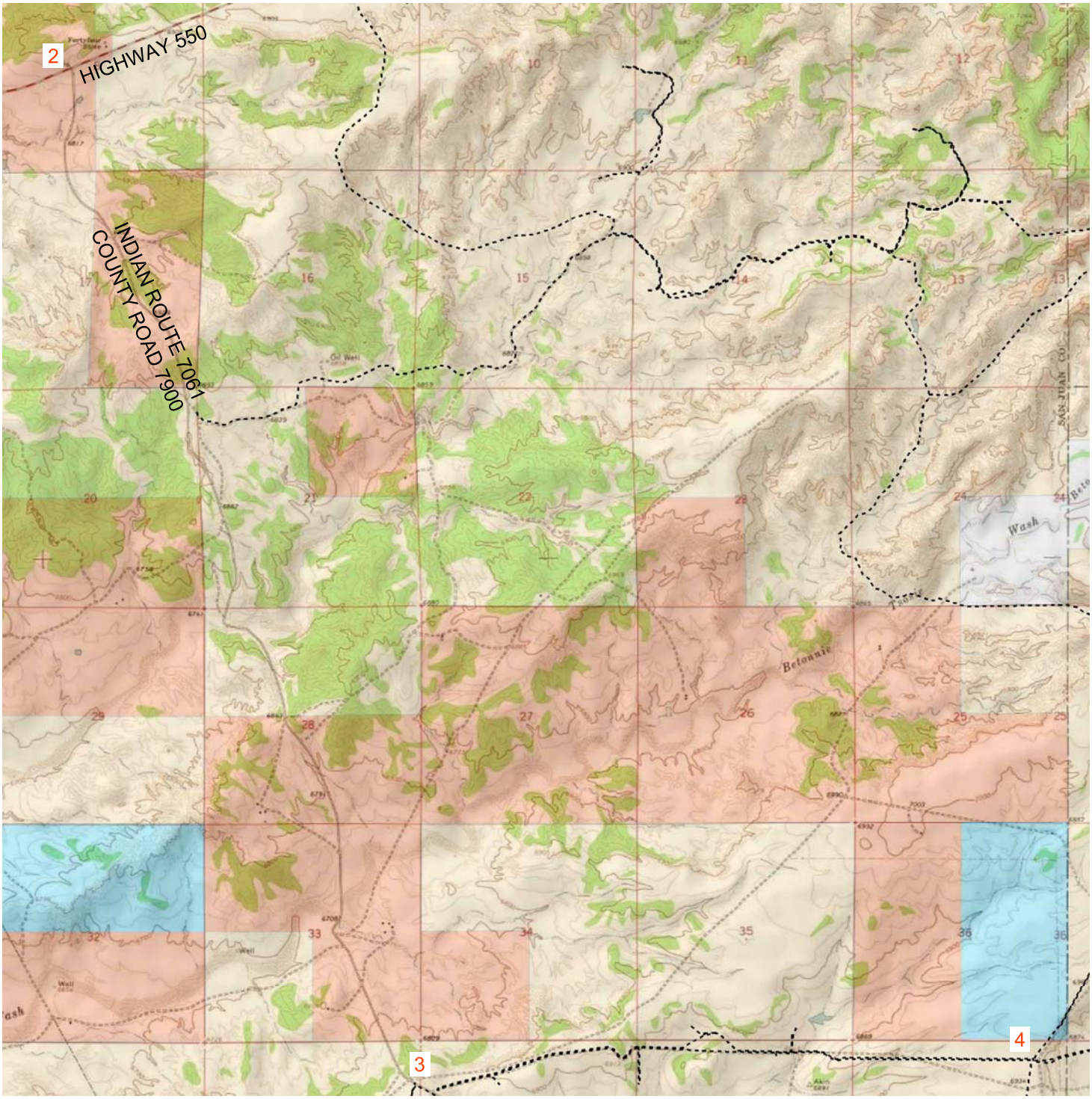
VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 60'
DATE: 04/19/19
DRAWN BY: GRR

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

WELL FLAG
LATITUDE: 36.186551° N
LONGITUDE: 107.614952° W
DATUM: NAD83

DJR OPERATING, LLC
NORTH ALAMITO UNIT WSW #7

1478' FNL & 2486' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 31,
T23N, R7W, N.M.P.M.,
SANDOVAL COUNTY, NEW MEXICO
NO NEW ACCESS NEEDED
SHEET 1 OF 2



U.S.G.S. QUAD: LYBROOK
SCALE: 1" = ¼ MILE
DATE: 04/19/19
DRAWN BY: GRR

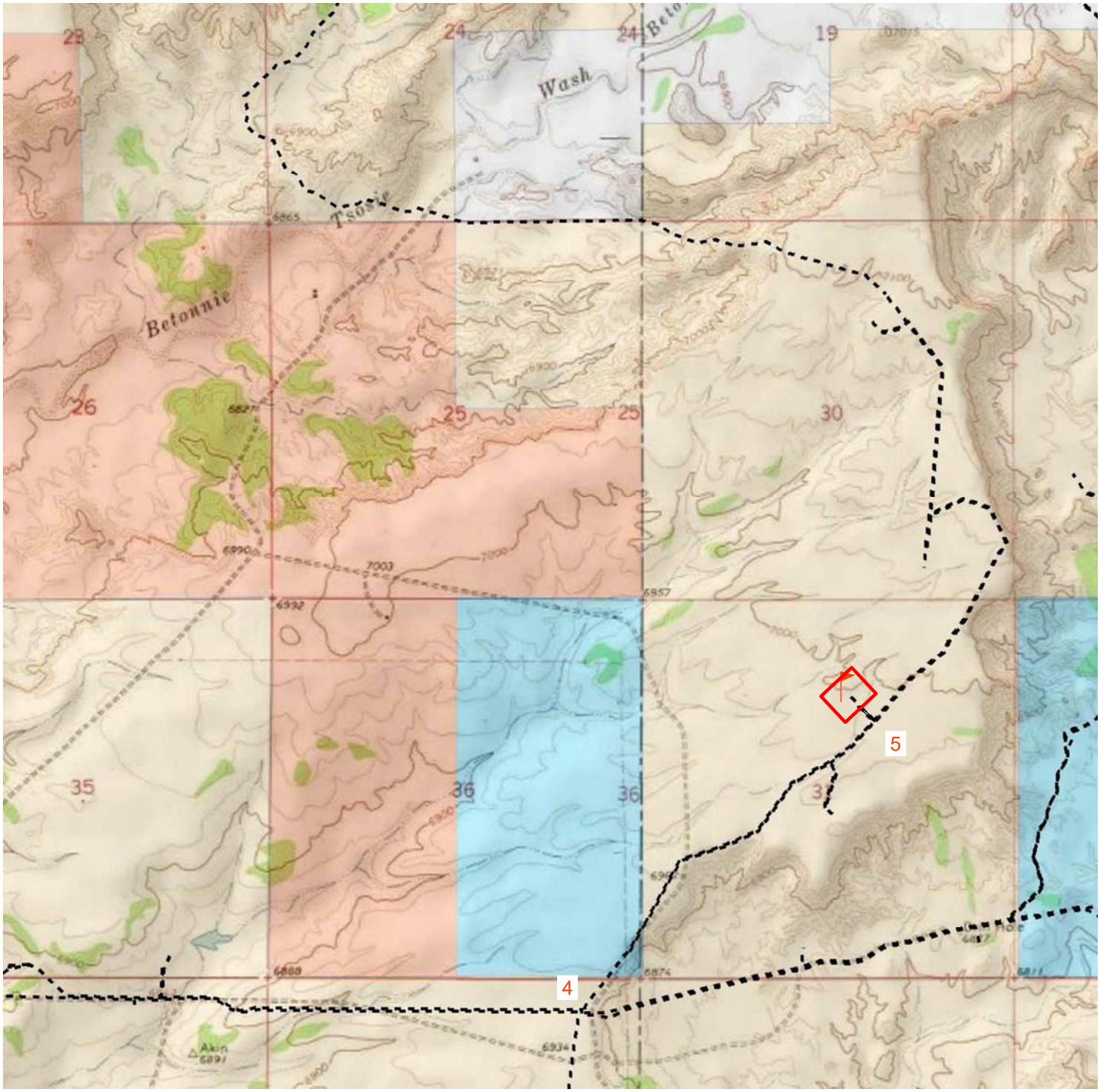
DJR OPERATING, LLC

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

WELL FLAG
LATITUDE: 36.186551° N
LONGITUDE: 107.614952° W
DATUM: NAD83

DJR OPERATING, LLC
NORTH ALAMITO UNIT WSW #7

1478' FNL & 2486' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 31,
T23N, R7W, N.M.P.M.,
SANDOVAL COUNTY, NEW MEXICO
NO NEW ACCESS NEEDED
SHEET 2 OF 2



U.S.G.S. QUAD: LYBROOK
SCALE: 1" = 2000' (1:24,000)
DATE: 04/19/19
DRAWN BY: GRR

DJR OPERATING, LLC

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

DJR OPERATING, LLC
NORTH ALAMITO UNIT WSW #7
1478' FNL & 2486' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 31,
T23N, R7W, N.M.P.M.,
SANDOVAL COUNTY, NEW MEXICO

DIRECTIONS

1) FROM THE INTERSECTION OF HWY 64 & HWY 550 IN BLOOMFIELD, GO SOUTH ON HWY 550, 39.0 MILES TO INDIAN ROUTE 7061; AKA COUNTY ROAD 7900 (M.P. 112.7).
2) TURN RIGHT ONTO 7061 AND GO 5.4 MILES TO A DIRT ROAD ON LEFT.
3) TURN LEFT AND GO 2.8 MILES TO A DIRT ROAD ON THE LEFT ON LEFT.
4) TURN LEFT AND GO 1.1 MILES TO THE ACCESS ROAD FOR THE WELL PAD.
5) TURN LEFT AND GO 300' TO THE STAKED WELL LOCATION.

WELL FLAG LOCATED AT LAT. 36.186551° N, LONG.107.614952° W (NAD 83).

DJR OPERATING, LLC

DATE: 04/19/19
DRAWN BY: GRR

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 an Enduring Resources, LLC Company
North Alamito Unit Water Supply Well Pad Diagram for Use of One 60K BBL AST and One 40K BBL AST
U/L B, C, F, G of Section 31, T23N, R07W, NMPM Sandoval County, New Mexico

EXHIBIT C. SURFACE OWNER NOTIFICATION

C

RECEIVED
AUG 19 2019
Farmington Field Office
Bureau of Land Management

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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. NMNM-006681

6. If Indian, Allottee or Tribe Name N/A

SUBMIT IN TRIPLICATE - *Other instructions on page 2*

7. If Unit of CA/Agreement, Name and/or No. NMNM-135229A

1. Type of Well
☐ Oil Well ☐ Gas Well ☑ Other

8. Well Name and No. North Alamito Unit WSW #7

2. Name of Operator DJR Operating, LLC

9. API Well No.

3a. Address 1 Road 3263, Aztec, NM 87410

3b. Phone No. *(include area code)* 505-632-3476

10. Field and Pool or Exploratory Area Entrada

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
At Surface: 1987 FNL, 361 FNL, H-Sec. 11-T22N, R6W

11. Country or Parish, State Sandoval County, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 perfonned 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 recompletion 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 detennined 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 North Alamito Unit WSW #7 Water Source Well for use as a source of completion water for future wells in DJR's permitted North Alamito Unit. Well is located in Sec. 31, T23N,R7W, Sandoval Co., NM.

Attached is

-Plan of Development for the proposed project.
-Plats for site
-Drilling Plan
-Well Bore Diagram

All requests and actions per this sundry are within the permitted North Alamito Unit boundaries.

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

Title Regulatory Specialist

Signature

Date 08/13/2019

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by Sarah N Stout

Title Supv NRS

Date 11/1/19

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 FFO

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)

OPERATOR

BLM Required Conditions of Approval
DJR North Alamito Unit WSW 7 and Central Liquids Facility

Construction, Production, Facilities, Reclamation & Maintenance

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Environmental Protection Staff at (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project.

Seed Mix: The Sagebrush community seed mix will be used for interim and final reclamation. The SUPO contains information on the specific seed mix and application rate.

Production Facilities: Design and layout of facilities will be deferred until an onsite with BLM-FFO surface protection staff is conducted to determine the best location. Enduring or their contractor will contact the Bureau of Land Management, Farmington Field Office, Surface and Environmental Protection Staff to schedule a facility layout onsite.

Visual Resource Management: The NAU WSW and CLF pads are located in a VRM Class III. Painting to blend Covert Green with the natural background, reseeding, and slope reclamation will be required.

Painting of Equipment: Within 90 days of installation, all above ground structures not subject to safety requirements shall be painted by the Holder to blend with the natural color of the landscape. A reflective material may be used to reduce hazards that may occur when such structures are near roads. Otherwise, the paint use shall be a non-glare, non-reflective, non-chalking color of: Covert Green

Staking: The holder shall place slope stakes, culvert location and grade stakes, and other construction control stakes as deemed necessary by the authorized officer to ensure construction in accordance with the plan of development. If stakes are disturbed, they shall be replaced before proceeding with construction.

Weather: No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.

Trees: trees that measure less than 3 inches in diameter (at ground level) and slash/brush within the well pad area and along the proposed access roads would be chipped or mulched and incorporated into the topsoil as additional organic matter. If applicable, trees 3 inches in diameter or greater (at ground level) within the well pad area and along the proposed access roads would be cut at ground level and de-limbed. Tree trunks (left whole) and cut limbs would be made available to the public. The subsurface portion of trees (tree stumps) would be disposed of appropriately.

Stockpile of Soil: The top 6 inches of soil material will be stripped and stockpiled in the construction zones around the pad [construction zones may be restricted or deleted to provide resource avoidance]. The stockpiled soil will be free of brush and tree limbs, trunks and roots. The stockpiled soil material will be

spread on the reclaimed portions of the pad [including the cut and fill slopes] prior to re-seeding. Spreading shall not be done when the ground or topsoil is frozen or wet.

Storage Tanks: All open top permanent or temporary production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted or otherwise covered to protect migratory birds and other wildlife from access.

Compressors: Compressor units on this well location not equipped with a drip pan for containment of fluids shall be lined with an impervious material at least 8 mils thick and a 12 inch berm. The compressor will be painted to match the well facilities. Any variance to this will be approved by the Authorized Officer (AO). Noise mitigation may be required at the time of compressor installation, including but not limited to hospital mufflers or sound walls.

Storage Facility Berms: Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.

Storm Water Management: Storm water will be diverted away from the CLF and WSW locations by diversion ditches, berms or waterbars.

Culverts: Silt Traps/Bell Holes will be built upstream of all culvert locations. Rip-rap will be placed at the downstream end of all culverts to prevent undercutting.

Driving Surface Area: All activities associated within the construction, operation, maintenance, and abandonment of the well location is limited to areas approved in the APD or ROW permit. During the production of the well, vehicular traffic is limited to the daily driving surface area established during interim reclamation construction operations. This area typically forms a keyhole or teardrop driving surface from which all production facilities may be serviced or inspected. A v-type ditch will be constructed on the outside of the driving surface to further define the driving surface and to deter vehicular traffic from entering onto the interim reclamation areas.

Contouring of Cut and Fill Slopes: The interim cut and fill slope grade shall be as close to the original contour as possible. To obtain this ratio, pits and slopes shall be back sloped into the pad during interim reclamation. Only subsurface soil and material shall be utilized in the contouring of the cut and fill slopes. Under no circumstances shall topsoil be utilized as substrate material for contouring of cut and fill slopes.

Maintenance: In order to perform subsequent well operations, right-of-way (ROW) operations, or install new/additional equipment, it may be necessary to drive, park, and operate on restored, interim vegetation within the previously disturbed area. This is generally acceptable provided damage is promptly repaired and reclaimed following use. Where vehicular travel has occurred as a "convenience" and interim reclamation/vegetation has been compromised, immediate remediation of the affected areas is required. Additionally, where erosion has occurred and compromised the reclamation of the well location, the affected area must be promptly remediated so that future erosion is prevented and the landform is stabilized.

Cultural Resources

Non-Permitted Disturbance: Construction, construction maintenance or any other activity outside the areas permitted by the sundry reports will require additional approval and may require a new cultural survey and clearance.

Employee Education: All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. This includes all personnel associated with construction, use, maintenance and abandonment of the well pad, well facilities, access and pipeline. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16U.S.C. 470aa-mm).

Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to Bureau of Land Management Field Manager. The Bureau of Land Management will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the Bureau Land Management will evaluate the significance of discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by a Bureau of Land Management or permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed. Failure to notify the Bureau of Land Management about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

Discovery of Cultural Resources during Monitoring: If monitoring confirms the presence of previously unidentified cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the Bureau of Land Management Field Manager. The Bureau of Land Management will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the Bureau of Land Management will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. A Bureau of Land Management or permitted cultural resources consultant may perform minor recordation, stabilization, or data recovery. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed.

Damage to Sites: If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare and have executed a Bureau of Land Management approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

Site Protection Barrier: Temporary site protection barriers will be erected prior to construction. The barriers will consist of upright wooden survey lath spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barriers will remain in place through reclamation and reseeding and shall

be promptly removed after reclamation. The barriers will be placed as indicated on the attached maps. There will be no surface-disturbing activities or vehicle traffic past the barriers.

Noxious Weeds

Inventory the proposed site for the presence of noxious and invasive weeds. Noxious weeds are those listed on the New Mexico Noxious Weed List and USDA's Federal Noxious Weed List. The New Mexico Noxious Weed List or USDA's Noxious Weed List can be updated at any time and should be regularly check for any changes. Invasive species may or may not be listed as a noxious weed, but have been identified to likely cause economic or environmental harm or harm to human health. The following noxious weeds have been identified as occurring on lands within the boundaries of the Farmington Field Office (FFO). There are numerous invasive species on the FFO such as Russian thistle (*Salsola spp.)* and field bindweed (*Convolvulus arvensis*).

Russian Knapweed (*Centaurea repens*)	Musk Thistle (*Carduss nutans*)
Bull Thistle (*Cirsium vulgare*)	Canada Thistle (*Cirsium arvense*)
Scotch Thistle (*Onopordum acanthium)*	Hoary Cress (*Cardaria draba*)
Perennial Pepperweed (*Lepdium latiofolfium*)	Halogeton (*Halogeton glomeratus*)
Spotted Knapweed (*Centaurea maculosa*)	Dalmation Toadflax (*Linaria genistifolia*)
Yellow Toadflax (*Linaria vulgaris*)	Camelthorn (*Alhagi pseudalhagi*)
African Rue (*Penganum harmala*)	Salt Cedar (*Tamarix spp.*)
Diffuse Knapweed (*Centaurea diffusa*)	Leafy Spurge (*Euphorbia esula*)

a. Identified weeds will be treated prior to new surface disturbance if determined by the FFO Noxious Weed Coordinator. A Pesticide Use Proposal (PUP) must be submitted to and approved by the FFO Noxious Weed Coordinator prior to application of pesticide. The FFO Noxious Weeds Coordinator (505-564-7600) can provide assistance in the development of the PUP.

b. Vehicles and equipment should be inspected and cleaned prior to coming onto the work site. This is especially important on vehicles from out of state or if coming from a weed-infested site.

c. Fill dirt or gravel may be needed for excavation, road construction/repair, or for spill remediation. If fill dirt or gravel will be required, the source shall be noxious weed free and approved by the FFO Noxious Weed Coordinator.

d. The site shall be monitored for the life of the project for the presence of noxious weeds (includes maintenance and construction activities). If weeds are found the FFO Coordinator shall be notified at (505) 564-7600 and provided with a Weed Management Plan and if necessary, a Pesticide Use Proposal (PUP) . The FFO Coordinator can provide assistance developing the Weed Management Plan and/or the Pesticide Use Proposal.

e. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state

laws and used only in accordance with their registered use and limitations. WPX's weed-control contractor would contact the BLM-FFO prior to using these chemicals.

f. Noxious/invasive weed treatments must be reported to the FFO Noxious Weed Coordinator. A Pesticide Use Report (PUR) is required to report any mechanical, chemical, biological or cultural treatments used to eradicate, and/or control noxious or invasive species. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

Bare ground vegetation trim-out: If bare ground vegetation treatment (trim-out) is desired around facility structures, the operator will submit a bare ground/trim-out design included in their Surface Use Plan of Operations (SUPO). The design will address vegetation safety concerns of the operator and BLM while minimizing impacts to interim reclamation efforts. The design must include what structures to be treated and buffer distances of trim-out. Pesticide use for vegetation control around anchor structures is not approved. If pesticides are used for bare ground trim-out, the trim-out will not exceed three feet from the edge of any eligible permanent structure (i.e. well heads, fences, tanks). Additional distance/areas may be requested and must be approved by the FFO authorized officer. The additional information below must also be provided to the FFO:

a. Pesticide use for trim out will require a Pesticide Use Proposal (PUP). A PUP is required ***prior*** to any treatment and must be approved by the FFO Noxious Weed Coordinator. Only pesticides authorized for use on BLM lands would be used and applied by a licensed pesticide applicator. The use of pesticides would comply with federal and state laws and used only in accordance with their registered use and limitations. WPX's weed-control contractor would contact the BLM-FFO prior to using these chemicals and provide Pesticide Use Reports (PURs) post treatment.

b. A Pesticide Use Report (PUR) or a Biological Use Report (BUR) is required to report any chemical, or biological treatments used to eradicate, or control vegetation on site. Reporting will be required quarterly and annually or per request from the FFO Noxious Weed Coordinator.

Paleontology

Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.

Wildlife

Nesting: If a bird nest containing eggs or young is encountered in the path of construction the operator will cease construction and consult with BLM to determine appropriate actions.

Migratory Bird Nest Survey: For any construction activities that exceed 4.0 acres of ground disturbance from 5/15 to 7/31 within the same lease, a migratory bird nest survey is required prior to any new ground disturbance. Nest surveys will be conducted within 48 hours of scheduled construction by BLM/FFO personnel or approved biologist. Any active nests will require a disturbance buffer to eliminate impacts to

nesting birds.

Raptors: No construction, drilling, workover, or completion activities shall be conducted between February 1 and June 30 within 1/2 mile of an active or historic golden eagle nest. No construction, drilling, workover, or completion activities shall be conducted between March 1 and June 30 within 1/3 mile of an active or historic raptor nest.

Threatened, Endangered or Sensitive Species: If, in operations the operator/holder discovers any Threatened, Endangered, or Sensitive species, work in the vicinity of the discovery will be suspended and the discovery promptly reported to the BLM-FFO T&E specialist at (505) 564-7600. The BLM-FFO will then specify what action is to be taken. Failure to notify the BLM-FFO about a discovery may result in civil or criminal penalties in accordance with The Endangered Species Act (as amended).

Hazards: Wildlife hazards associated with the proposed project would be fenced, covered, and/or contained in storage tanks, as necessary. All open top permanent or temporary production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted or otherwise covered to protect migratory birds and other wildlife from access.

Soil, Air, Water

Land Farming: No excavation, remediation or closure activities will be authorized without prior approval, on any federal or Indian mineral estate, federal surface or federal ROW. A Sundry Notice (DOI, BLM Form 3160-5) must be submitted with an explanation of the remediation or closure plan for on-lease actions.

Air Quality: The operator will follow EPA, State of New Mexico, and BLM air quality regulations and Best Management Practices to reduce impacts to air quality by reducing emissions, surface disturbances, and dust from field production and operations. Typical regulations and best management practices include watering of dirt roads during periods of high use to reduce fugitive dust emissions, collocation of wells and production facilities to reduce new surface disturbance, implementation of directional and horizontal drilling and completion technologies whereby one well provides access to petroleum resources that would normally require the drilling of several vertical wellbores, installing vapor recovery systems where petroleum liquids are stored, and performing interim reclamation to reduce the amount of fugitive dust on areas not required for production facilities. These regulations and best management practices would also reduce methane and greenhouse gasses (GHGs) and thereby reduce the contribution to climate change.

Emission Control Standard: Compressor engines 300 horsepower or less used during well production must be rated by the manufacturer as emitting NOx at 2 grams per horsepower hour or less to comply with the New Mexico Environmental Department, Air Quality Bureau's guidance.

Waste Disposal: All fluids (i.e., scrubber cleaners) used during washing of production equipment, including compressors, will be properly disposed of to avoid ground contamination, or hazard to livestock or wildlife.

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
	SJ 00949 -S	1	3	2	01	22N	08W	263242	4006176*

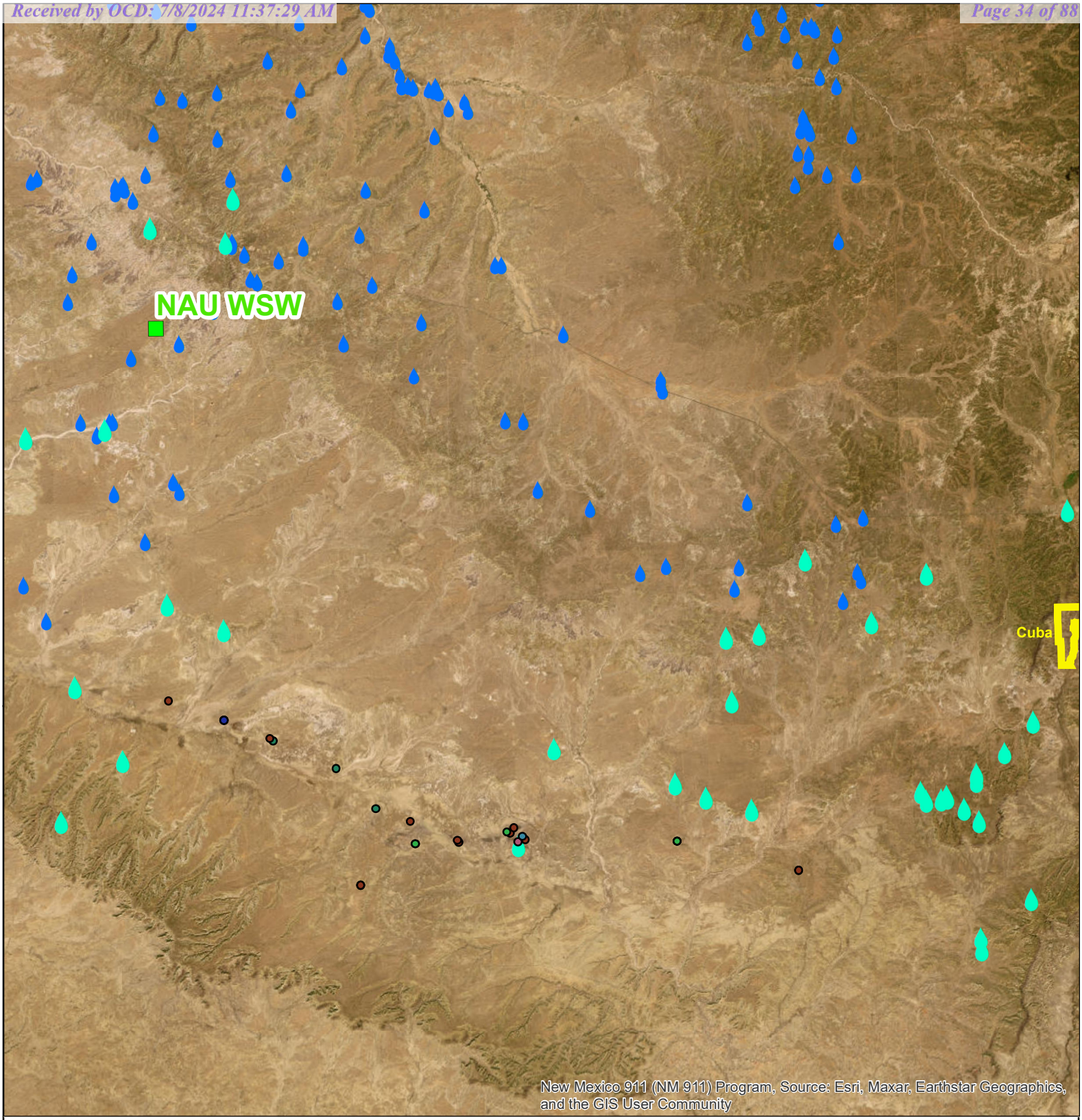
Driller License:	709	**Driller Company:**	KEY ENERGY SERVICES, INC.		
Driller Name:					
Drill Start Date:	05/19/1980	**Drill Finish Date:**	05/29/1980	**Plug Date:**	
Log File Date:	08/01/1980	**PCW Rcv Date:**	03/15/1984	**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	400 GPM
Casing Size:	13.38	**Depth Well:**	2647 feet	**Depth Water:**	1106 feet

Water Bearing Stratifications:	Top	Bottom	Description
	2037	2634	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	2046	2609

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

EXHIBIT E. SITING CRITERIA MAPS



NAU WSW Containment Location Map1
Siting Critieria

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

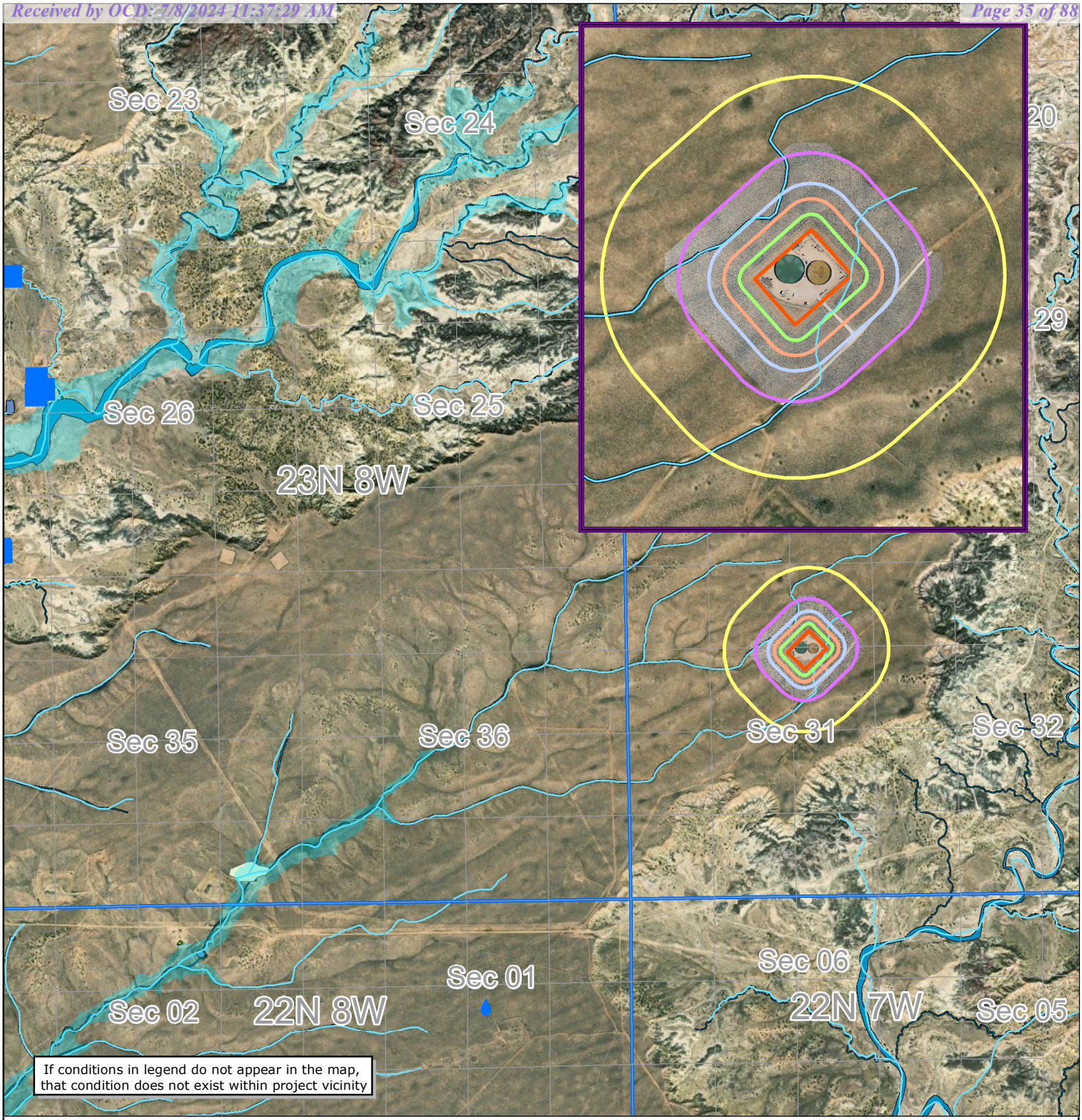
ENDURING RESOURCES, LLC

Miles

0 2 4 6 8 10

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: 6/28/2024



NAU WSW Containment Location Map 2
Siting Critieria

100 ft
200 ft
300 ft
500 ft
1000 ft
NAU WSW
Residence

Active Mining
Active Mining, Active Reclamation
Approved
Enforcement
No Permit
No Response
Pending
Released
Temporary Suspension
Under Development
OSE_wells_AOI
Spring Seep

USGS Water Courses
Estuary
Ice Mass
LakePond
Playa
Reservoir
SwampMarsh
NHDWaterbody
FType
LakePond
FEMA High Risk Flood Zone
Building Footprints

Wetlands
WETLANDS
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine

1% Annual Chance Flood Hazard
Regulatory Floodway
Special Floodway
Area of Undetermined Flood Hazard

0.2% Annual Chance Flood Hazard
Future Conditions 1% Annual Chance Flood Hazard
Area with Reduced Risk Due to Levee
Area with Risk Due to Levee

ENDURING RESOURCES, LLC

0 1,000 2,000 3,000 4,000 5,000 Feet

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: 6/28/2024

EXHIBIT F. AQUATIC RESOURCES INVENTORY REPORT

Aquatic Resources Inventory Report for Enduring Resources IV, LLC's North Alamito Unit WSW No. 7 Project, Sandoval County, New Mexico

MAY 2024

PREPARED FOR

Enduring Resources IV, LLC

PREPARED BY

SWCA Environmental Consultants

AQUATIC RESOURCES INVENTORY REPORT FOR ENDURING RESOURCES IV, LLC'S NORTH ALAMITO UNIT WSW NO. 7 PROJECT, SANDOVAL COUNTY, NEW MEXICO

Prepared for

Enduring Resources IV, LLC
200 Energy Court
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SWCA Project No. 00075253-088

May 2024

EXECUTIVE SUMMARY

SWCA Environmental Consultants (SWCA) completed an inventory of aquatic resources, including a field delineation of potentially jurisdictional surface aquatic features, for Enduring Resources IV, LLC's North Alamito Unit (NAU) Water Source Well (WSW) No. 7 Project (project) in Sandoval County, New Mexico. The survey area included the NAU WSW well pad and a 500-foot buffer totaling 49.8 acres of Bureau of Land Management (BLM) lands within the Farmington Field Office (FFO) jurisdiction, located near the unincorporated community of Counselor, New Mexico.

An aquatic resources inventory can be used to identify the potential presence and/or extent of features that may be jurisdictional waters of the United States (WOTUS) as well as provide a preliminary overview of aquatic resources within the survey area that may be subject to federal, state, or local regulations. A comprehensive inventory and review of these data provide necessary information for survey area selection and planning and understanding the potential connectivity of waters through the lens of a watershed-scale assessment. Identifying the presence or absence of aquatic resource features within and surrounding the survey area and understanding the associated hydrologic and water quality characteristics is important for effective project planning and potential permitting considerations.

SWCA evaluated the inventory of aquatic resources at the time of this report's preparation to develop a professional opinion of potential WOTUS jurisdiction based on the "Revised Definition of 'Waters of the United States'" rule as amended (2023 Amended Rule) (*Federal Register* 88:61964) and current guidance received by the U.S. Army Corps of Engineers (USACE) Albuquerque District. The USACE has the regulatory authority and discretion in determining the jurisdictional status of aquatic resources at a given site. Various federal, state, local, and tribal agencies regulate different aspects of aquatic resources, including streams, wetlands, stormwater discharges, and floodplains in New Mexico.

Enduring is proposing recycling containment as part of the project. Recycling containment involves the use of synthetic liners and requires a permit or registration from the New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division (NMOCD). The NMOCD regulates oil and gas activity in New Mexico and is authorized to regulate the disposition, handling, transport, storage, recycling, treatment, and disposal of produced water during, or for reuse in, the exploration, drilling, production, treatment or refinement of oil or gas in a manner that protects public health, the environment, and freshwater resources (19.15.34 New Mexico Administrative Code [NMAC]). The permit or registration is obtained by submitting Form C-147, Recycling Facility and/or Recycling Containment, to the NMOCD. Section 8 of Form C-147 presents siting criteria and requires disclosure of aquatic resources within specific distances of any proposed containment for recycling and reuse of produced water, drilling fluids, and liquid oil field waste. SWCA evaluated the inventory of aquatic resources with regard to the siting criteria listed on NMOCD's Form C-147.

SWCA conducted a desktop review of existing publicly available data prior to the aquatic resources field survey to evaluate surface water and groundwater resources within and adjacent to the proposed survey area. The aquatic resources field survey was conducted on April 16, 2024, to inventory both three-parameter wetlands and non-wetland waters. The survey area included the NAU WSW well pad and a 500-foot buffer totaling 49.8 acres on land managed by the BLM FFO. SWCA did not identify potentially jurisdictional surface aquatic features within the survey area.

It is SWCA's understanding that at the time of the April 2024 aquatic resources survey, the project was under construction with jurisdictional WOTUS approvals, permitting, and compliance in place.

SWCA did not observe continuously flowing watercourses or wetlands within 500 feet of the proposed recycling containment. SWCA's professional opinion is that the proposed location of the recycling

containment meets the requirements of 19.15.34 NMAC because there are no streams with ordinary high-water marks within 200 feet.

However, although average depth to water is 57 feet below the surface, depth to groundwater varies significantly throughout the basin (New Mexico Office of the State Engineer [NMOSE] 2010). SWCA therefore recommends obtaining site-specific data on depth to groundwater to ensure compliance with the 19.15.34 NMAC requirement that depth to groundwater from a recycling containment be greater than 50 feet.

It is SWCA's understanding that no disturbances are proposed, including dredge and fill, within potentially jurisdictional WOTUS features at this time. However, it is incumbent upon Enduring to remain informed of any changes in the regulations and policy as they relate to the project. If the project plans change such that WOTUS could be impacted by the proposed project activities, a reevaluation of permit requirements is recommended. SWCA recommends avoidance and/or minimization of impacts to potentially jurisdictional WOTUS features to the greatest extent possible. If avoidance is not possible, SWCA recommends minimizing disturbance with clear project design plans and mitigation measures and pursuing the potential Clean Water Act Sections 404 and 401 permit pathways most appropriate for the project.

The results and recommendations provided within 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. Additionally, 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.

CONTENTS

Appendices

Tables

1 INTRODUCTION

On behalf of Enduring Resources IV, LLC (Enduring), SWCA Environmental Consultants (SWCA) completed an inventory of aquatic resources, including a field delineation of potentially jurisdictional surface aquatic features, for the North Alamito Unit (NAU) Water Source Well (WSW) No. 7 Project (project) located approximately 9 miles southwest of Counselor, New Mexico in Sandoval County, New Mexico (Figure A-1 in Appendix A). The survey area included the NAU WSW well pad and a 500-foot buffer totaling 49.8 acres on land managed by the Bureau of Land Management (BLM) within the Farmington Field Office (FFO) jurisdiction, near the unincorporated community of Counselor, New Mexico. The well pad is irregularly shaped measuring approximately 385 × 484 feet, totaling 4.5 acres, and the access road is approximately 276 feet long. The approximate center point of the survey area is 36.186805, −107.614688 (Figure A-2 in Appendix A).

In early 2024, Enduring acquired DJR Operating, LLC (DJR), which had previously received approval and necessary permitting for the project. However, due to differences between Enduring's and DJR's construction methodologies, Enduring is now pursuing additional permitting that was not in place at the time of the acquisition. Specifically, Enduring is proposing recycling containment,[1] which requires compliance with 19.15.34 New Mexico Administrative Code (NMAC). To comply with 19.15.34 NMAC, operators requesting to transport, dispose of, recycle, or reuse produced water, drilling fluids, and/or liquid oil waste must obtain a permit or registration from the New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division (NMOCD). The NMOCD regulates oil and gas activity in New Mexico and is authorized to regulate the disposition, handling, transport, storage, recycling, treatment, and disposal of produced water during, or for reuse in, the exploration, drilling, production, treatment or refinement of oil or gas in a manner that protects public health, the environment, and freshwater resources (19.15.34 NMAC).

The permit or registration is obtained by submitting Form C-147, Recycling Facility and/or Recycling Containment, to the NMOCD. Section 8 of Form C-147 presents containment siting criteria and requires disclosure of aquatic resources within specific distances of any proposed containment for recycling and reuse of produced water, drilling fluids, and liquid oil field waste.

1.1 Purpose

SWCA prepared this aquatic resources inventory report (ARIR), which summarizes aquatic resources desktop and field data, to support Enduring's application for permit or registration specific to 19.15.34 NMAC via Form C-147. The ARIR serves as a record of existing aquatic resources as required by Section 8 of Form C-147 (siting criteria), including wetlands and aquatic resources exhibiting an ordinary high-water mark (OHWM).

This ARIR also includes watershed-level information for project planning considerations by detailing the dynamics of environmental and regulatory management within a hydrologically defined geographic area (watershed and/or basins) while also documenting ground and surface aquatic resources.

In addition to 19.15.34 NMAC, this ARIR addresses Clean Water Act (CWA) Sections 401, 402, and/or 404 and Floodplain Management (Executive Order 11988) permitting considerations.

[1] Recycling containment is defined in 19.15.34.7 NMAC as "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".

2 REGULATORY CONSIDERATIONS

Section 2.1 discusses the current regulatory environment for waters of the United States (WOTUS). Section 2.2 documents the relevant statutes and regulations for aquatic resources in New Mexico.

2.1 Current Regulatory Environment for 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 (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 U.S. Army Corps of Engineers (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 [EPA] 2024a).

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).

A USACE Department of the Army permit pursuant to CWA Section 404 is required for the discharge of dredged or fill material into WOTUS, unless an exemption applies. Depending on the scope and level of potential impacts, the discharge of dredged or fill material into WOTUS would require either a general permit or an individual permit prior to the initiation of proposed activities with potential to impact WOTUS.

SWCA evaluated the inventory of 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 ARIR was prepared. The USACE has the regulatory authority and discretion in determining the jurisdictional status of aquatic resources at a given site.

2.2 Statutes and Regulations

Various federal, state, local, and tribal agencies regulate different aspects of aquatic resources, including streams, wetlands, stormwater discharges, and floodplains in New Mexico. Table 1 provides a list of relevant permits, regulations, and approvals that could be required for aquatic resources.

Table 1. Permits, Regulations, and Approvals Relevant to the Aquatic Resources

Permit/Regulation/Approval	Issuing Agency(ies)	Description
Federal Permit, Approval, or Clearance		
Section 10 of the Rivers and Harbors Act of 1899	USACE	Section 10 of the Rivers and Harbors Act of 1899 requires approval from the USACE prior to any work in or over navigable WOTUS or that affects course, location, condition, or capacity of such waters. Typical activities resulting in a Section 10 permit include construction of piers, docks, intake/outfall structures, and cable or pipeline crossing, dredging, and/or excavation. Section 10 Rivers in New Mexico include portions of the Rio Grande, from Val Verde County near the city of Del Rio upstream of the point of intersection of the Texas–New Mexico state line and Mexico, as well as the Navajo Reservoir. Section 10 permitting is completed on a case-by-case basis with the USACE. Section 10 permitting does not apply to this project because there are no Section 10 waters in the project area or vicinity anticipated to be impacted by project activities.
CWA Section 404: discharge of dredged or fill material into WOTUS	USACE	Section 404 of the CWA regulates certain dredge and fill activities in WOTUS (EPA 2024b). Certain development or construction in WOTUS requires an appropriate permit, either a nationwide permit (via a notifying permit action or preconstruction notification, or a non-notifying permit action, which may require a permit verification letter, pending the direction of the agency), Regional General Permit (automatic notifying permit action via development of a preconstruction notification), or individual permit (additional permitting requirements) from the USACE. Section 404 of the CWA is not applicable at the time of the survey because the project was under construction with approvals, permitting, and compliance in place prior to construction. There are no additional disturbances, including dredge and fill, planned at this time.
CWA Section 402 (National Pollutant Discharge Elimination System [NPDES])	EPA	Based on the 1987 Water Quality Act and Section 323 of the Energy Policy Act of 2005, Section 402 of the CWA does not require operators to obtain an NPDES permit for discharges of stormwater runoff from oil and gas exploration, production, processing, or treatment operations (EPA 2024c). Some state and local agencies have established requirements for stormwater permit compliance for these activities; however, in the State of New Mexico, the EPA is the regulatory authority for the stormwater permitting program. Therefore, the proposed project is exempt.
CWA Section 303(d): impaired waters and Total Maximum Daily Loads (TMDLs)	EPA; New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB)	Section 303(d) of the CWA outlines the process and reporting requirements for identifying impaired waters and developing TMDLs (EPA 2023a). Under Section 303(d) of the CWA, states, territories, and authorized tribes, collectively referred to in the CWA as "states," are required to develop a list of impaired waters. The NMED SWQB maintains the list of impaired waters in New Mexico via the *2024–2026 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report* (NMED SWQB 2024). Impaired waters and water quality standards of receiving surface waters may be considered in NMED SWQB's 401 determination or 402 requirements. Based on the EPA's discharge mapper tool and the New Mexico Integrated Report, the project area does not have the potential to discharge to an impaired water (NMED SWQB 2022).
Endangered Species Act	U.S. Fish and Wildlife Service (USFWS)	Compliance is required for any CWA permitting action, including Section 402 or 404.
Migratory Bird Treaty Act of 1918 (16 United States Code 703–712)	USFWS – Migratory Bird Permit Office Region 2	Compliance is required for any CWA permitting action, including Section 402 or 404.

Permit/Regulation/Approval	Issuing Agency(ies)	Description
Section 106 of the National Historic Preservation Act	State of New Mexico or Tribal Historic Preservation Division	Compliance is required for any CWA permitting action, including Section 402 or 404.
State Permit, Approval, or Clearance		
CWA Section 401 Water Quality Certification	NMED SWQB, Authorized Tribes, or the EPA	Section 401 of the CWA regulates water quality of WOTUS by granting authority to states and authorized tribes to approve, deny, or waive certification of proposed federal permitting actions that may result in a discharge into WOTUS (EPA 2023b) to ensure that the federal permit complies with state or water quality regulations. In New Mexico, the NMED SWQB, Authorized Tribes, or the EPA, depending on land jurisdiction, are the certifying authorities responsible for individual, expedited, or waived/exemption of Water Quality Certification in accordance with Section 401 of the CWA. Section 401 of the CWA is not applicable at the time of the survey because the project was under construction with approvals, permitting, and compliance in place prior to construction. No additional disturbances, including dredge and fill, are planned at this time.
19.15.34 NMAC; Permit or Registration for Recycling and Re-use of Produced Water, Drilling Fluids and Liquid Oil Field Waste including Recycling Containment	NMOCD	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; 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 requested via NMOCD's Form C-147. Enduring is proposing recycling containment as part of the project, requiring compliance with 19.15.34 NMAC. Form C-147 siting criteria require that a recycling containment not be located: • where ground water 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.
Local Permit, Approval, or Clearance		

Permit/Regulation/Approval	Issuing Agency(ies)	Description
Executive Order (EO) 11988 (Floodplain Management)	Counties, local municipalities, and/or Tribal entities in New Mexico	EO 11988 (Floodplain Management) intends to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. The Federal Emergency Management Agency (FEMA) has mapped regulatory flood zones, defined as areas inundated by the 1% (100-year; Zones A or AE) or 0.2% (500-year; Zones B, C, or X) annual chance flood, meaning the flood has a 1% or 0.2% chance of being equaled or exceeded in any given year. Any changes to the FEMA flood maps are approved by FEMA. Modifications and development occurring in a floodplain require analysis under EO 11988. Floodplains are regulated by the local ordinance (i.e., the county, local municipality, and/or Tribal Floodplain Administrators) for any impacts within floodplains prior to construction. Compliance and/or permitting actions are regulated by the local authorities. The survey area is not within a special flood hazard area and is therefore not subject to floodplain compliance and/or permitting under EO 11988.

3 METHODOLOGY

The aquatic resources inventory consists of a desktop review of existing data and a field survey, as described below.

3.1 Desktop Data Review

SWCA conducted a desktop review of existing publicly available data prior to the aquatic resources field survey to evaluate surface aquatic resources and groundwater resources within and adjacent to the proposed project area. Identifying the presence or absence of aquatic resource features in the project area and understanding the associated hydrologic and water quality characteristics is important for effective project planning and potential permitting considerations. A comprehensive inventory and review of these data provide necessary information for understanding potential connectivity of waters through the lens of a watershed-scale assessment.

3.1.1 Surface Aquatic Resources

Evaluation of the presence or absence of surface aquatic resources in the survey area is an essential component of the desktop review as it informs project planning and considerations for the aquatic resources field survey. Several sources were reviewed to determine the potential presence or absence of surface aquatic features in the survey area, including the following:

- National Hydrography Dataset (NHD): The U.S. Geological Survey (USGS) NHD identifies surface water features such as streams, rivers, canals, ditches, ponds, lakes, and reservoirs (USGS 2016).
- National Wetlands Inventory (NWI): The U.S. Fish and Wildlife Service (USFWS) NWI identifies and characterizes wetlands, including freshwater wetlands, emergent wetlands, forested/shrub wetlands, ponds, lakes, riverine wetlands, and others (USFWS 2024).
- Federal Emergency Management Agency (FEMA) Flood Maps: FEMA flood maps identify areas at risk for flooding (FEMA 2024).

- Natural Resources Conservation Service (NRCS) Soil Data: The NRCS Soil Survey Geographic Database (2024a), including hydrologic soil groups (NRCS 2024b), provides information on areas of potential inundation through the presence of hydric soils. Some soil properties that can be useful for identifying aquatic resources include hydric soil components, drainage classifications, and taxonomic class.
- Aerial Photographs and Imagery: Historic and current aerial photographs of the survey area are useful for landscape-scale visualization of potential surface water features under different seasonal conditions (Google Earth Pro 2024).

3.1.1.1 HYDROLOGY

Assessing the hydrology of aquatic resources at both a watershed scale and within the survey area is useful for determining the connectivity of a surface water feature, which in turn influences jurisdictional status. Furthermore, hydrologic understanding can also lend insight into preliminary project planning and site design by highlighting those areas more susceptible to flooding and inundation. Sources reviewed include those described in the following subsections.

- USGS Topography and Watershed Boundaries: USGS 7.5-minute quadrangles provide information regarding local and landscape-level topography. The Watershed Boundary Dataset provides hydrologic units at a national scale that represent an area of the landscape that drains to a portion of a stream network based on topographic, hydrologic, and other landscape characteristics at eight hierarchical levels (USGS 2021). Identifying the hydrologic unit at level 10 (Hydrologic Unit Code [HUC] 10) is helpful in understanding surface water position in the landscape and connectivity to downstream waters.
- USGS StreamStats: StreamStats (Version 4) is a web-based tool that accesses the National Streamflow Statistics Application and the 30-meter digital elevation model database to estimate the hydrologic parameters of ungaged sites, including basin characteristics and estimates of flow statistics (USGS 2018). It is another line of evidence used to understand the quantity and routing of water through the landscape and how that might impact project activities.

3.1.1.2 CLIMATE

An understanding of the regional climate informs aquatic resource field identification and indicators. Awareness of temporal aspects of climate data can be used for project planning and scheduling by understanding the hydrological context of flow timing and quantity. Sources reviewed include the following:

- Antecedent Precipitation Tool (APT) (Version 2.0.0): The APT uses over 20 sources to evaluate the conditions leading up to and during the site visit relative to normal conditions, seasonality, and typical year considerations compared with the previous 30-year normal range (USACE 2024).
- EPA's Seasonally Dry Period Locator Tool: The EPA's Seasonally Dry Period Locator Tool helps determine whether a survey area is in an arid or semiarid climate and the seasonally dry months for the area (EPA 2022).
- NRCS Climate Analysis for Wetlands Tables (WETS Tables): The WETS Tables approximate growing season dates based on long-term records gathered at National Weather Service meteorological stations. Growing season dates may be needed to evaluate certain wetland indicators (NRCS 2024c).

- Western Regional Climate Center (WRCC): WRCC data provide information on annual rainfall and precipitation, which is an important consideration for understanding the volume and timing of potential flow.

3.1.1.3 WATER QUALITY

The quality of surface waters in the survey area is important as it can impact permitting conditions related to Section 401 and Section 402 of the CWA. Permitting conditions for projects that propose impacts or discharges to a water body listed as impaired may require implementation of mitigations or best management practices to prevent further degradation of water quality. The status of waters potentially impacted by the project is best evaluated using the resources below.

- EPA Stormwater Discharge Mapping Tool: The EPA Stormwater Discharge Mapping Tool (EPA 2024d) is a web-based tool used to identify nearby surface waters into which a project area may discharge and whether those waters have been reported to the EPA as being impaired or having a Total Maximum Daily Load (TMDL). The Stormwater Discharge Mapping Tool uses the National Hydrography Dataset Plus (NHDPlus), Section 303(d) listing, and TMDL information to analyze whether a site is within the catchment of an impaired water (EPA 2024e).
- *Final Draft 2024–2026 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report* (New Mexico Integrated Report): The New Mexico Integrated Report (New Mexico Environment Department [NMED] Surface Water Quality Bureau [SWQB] 2024) contains the most up-to-date list of impaired water bodies in the State of New Mexico and can be used as a verification tool for the EPA Stormwater Discharge Mapping Tool.

3.1.2 Groundwater Resources

Although a detailed analysis of groundwater movement is not necessary for the purposes of this inventory, it is useful to understand any diversion or groundwater use activity within and adjacent to the survey area so that project activities do not impact the quality or quantity of water being used by other landowners. Groundwater resources were evaluated within a 0.5-mile radius of the survey area. The county boundary was used to include wells with depth to groundwater measurements for evaluating compliance with 19.15.34 NMAC siting criteria. The following publicly available sources were used to evaluate existing groundwater aquatic resources:

- USGS (2024) and New Mexico Office of the State Engineer (NMOSE) database for groundwater well and point of diversion (POD) information (NMOSE 2017). and New Mexico Water Rights Reporting System (NMOSE 2010) return the water column depth for all the wells found in a given section and return the average of all wells in the section for depth of well and depth to water.

The NMOSE POD layer of the database, updated monthly, includes well locations, surface declarations, and surface permits. These data are obtained from the NMOSE's Water Administration Technical Engineering Resource System database, and the data are geolocated or mapped. These data have various degrees of accuracy and have not been validated; thus, the information in this report is considered preliminary.

3.2 Aquatic Resources Field Survey

SWCA conducted an aquatic resources delineation field survey on April 16, 2024, using the methods discussed in the following subsections. The survey area consisted of the proposed project area and a 500-foot buffer totaling 49.8 acres (Figure A-2). The 500-foot buffer encompasses the furthest distance for

siting criteria relative to aquatic resources in 19.15.34 NMAC. Any specific aquatic resources of concern within 500 feet of the recycling containment are described in detail in Section 4.

SWCA used data from the WRCC to evaluate the conditions leading up to and during the field survey relative to normal conditions, seasonality, and typical year considerations (WRCC 2024).

3.2.1 Three-Parameter Wetlands

Wetlands are defined jointly by the USACE and the EPA (USACE 1987; *Federal Register* 88:61964) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (USACE 1987:9). The NMAC defines wetlands similarly 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" not including constructed wetlands used for wastewater treatment purposes (19.15.2.7 NMAC). The *Corps of Engineers Wetlands Delineation Manual* includes in its technical approach for identification and delineation of wetlands that "except in certain situations, evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found to make a positive wetland determination" (USACE 1987:9).

The presence/absence of three-parameter wetlands (hydrology, hydric soils, and hydrophytic vegetation) was determined in the field using wetland determination methods provided in the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2.0)* (Regional Supplement) (USACE 2008a). Quantitative data were collected in the Regional Supplement's wetland determination data forms (datasheet) using indicators for the three-parameter wetlands at sample points representative of the immediate vegetation community (USACE 2008a) where applicable. A formal wetland determination datasheet was completed in locations where NWI-mapped wetlands intersected the survey area or where other indicators were present and wetland determinations were considered necessary.

SWCA used the following resources to identify the indicators associated with three-parameter wetlands (hydrology, hydric soils, and hydrophytic vegetation): the Regional Supplement for hydrology indicators (USACE 2008a), Munsell Soil Color Charts (Munsell Color 2010) for soil colors and associated indicators, Wetland Training Institute, Inc.'s, *Pocket Guide to Hydric Soil Field Indicators* (Wetland Training Institute, Inc. 2022) and soil texture by feel chart for hydric soil indicators, and the 2020 National Wetland Plant List (USACE 2020) with wetland indicator status for each plant species to determine hydrophytic vegetation.

For purposes of the Form C-147, SWCA interprets the term wetland as a three-parameter wetland as defined above and identified by the *Corps of Engineers Wetlands Delineation Manual* and the Regional Supplement.

Wetland boundaries were delineated where wetland hydrology, hydrophytic vegetation, and hydric soils were present, or where wetland indicators were disturbed or problematic (USACE 2008a:Chapter 5).

3.2.2 Non-Wetland Waters

Potentially jurisdictional non-wetland waters, such as streams, rivers, lakes, ponds, and reservoirs, are delineated by identifying the presence of an OHWM. 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.

Additionally, a watercourse is defined 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" (19.15.2.7 NMAC). For purposes of the Form C-147, SWCA interprets watercourse as a lotic aquatic feature with an OHWM.

The extent of non-wetland waters was determined in the field using the guidance and methods provided in USACE Regulatory Guidance Letter No. 05-05 (USACE 2005). For streams and rivers, the USACE technical guidance *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United States* (USACE 2008b) and *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010) were used to determine the lateral extent of non-wetland waters. If non-wetland waters are to be determined after the USACE final draft of the proposed national OHWM manual is published, which is anticipated in 2024, the national OHWM manual and accompanying datasheets will be used (USACE 2022a, 2022b). For any stream or river OHWMs identified within the survey area, USACE OHWM datasheets (USACE 2010) were completed at a representative sample location. The field delineation crews also recorded OHWM indicators using the Interim Draft Rapid Ordinary High Water Mark (OHWM) Field Identification Data Sheet (USACE 2022c). OHWMs for other non-wetland waters, such as lakes and ponds, were determined by the lines on their banks and qualitative notes recorded. Non-wetland waters data were documented using the methodology described above for OHWMs identified in the field but not included in the publicly available datasets, as well as those identified in publicly available datasets including the NHD and NWI.

3.2.2.1 STREAMFLOW DURATION ASSESSMENT METHOD

For surface water features exhibiting an OHWM, SWCA conducted a stream flow 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 record the status of these five indicators on a field form for every surface water feature in the survey area with an OHWM.

Form C-147 references "continuously flowing watercourses" in the siting criteria without defining "continuously flowing". For the purposes of Form C-147, SWCA interpreted "continuously flowing" to mean perennially flowing as classified by the USACE's SDAM. Additionally, the term "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". For the purposes of Form C-147, SWCA interpreted having "definite banks and bed with visible evidence of the occasional flow of water" as having an OHWM and "occasional flow" as either ephemeral or intermittent as classified by the USACE's SDAM.

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 Desktop Data Review

4.1.1 Surface Aquatic Resources

National Hydrography Dataset:

A review of the NHD indicated that two intermittent flowlines, totaling 0.58 mile, are present within the survey area (see Figure A-2 in Appendix A) (USGS 2016).

National Wetlands Inventory:

The NWI review indicated that one riverine system, totaling 0.7 acre, is within the survey area and roughly corresponds with one of the NHD-mapped intermittent flowlines (see Figure A-2 in Appendix A) (USFWS 2024).

FEMA Flood Maps:

The desktop review of FEMA flood maps indicated that the survey area is not within a special flood hazard area and is therefore not subject to flooding by a 1% annual chance flood (meaning the flood has a 1% chance of being equaled or exceeded in any given year) (FEMA 2024).

Disclaimer: SWCA did not perform any hydrologic or geomorphic analysis for the site and did not investigate local floodplain maps. SWCA recommends further analysis and/or consultation with the local Floodplain Administrator to inform design criteria.

NRCS Soil Data:

One soil unit is mapped in the survey area—Doakum-Betonnie fine sandy loams (Table 2); this soil unit is identified by the NRCS (2024b) as having predominantly non-hydric components. The soil texture in the survey area is primarily sandy loam.

Table 2. 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
Doakum-Betonnie fine sandy loams, 0 to 8 percent slopes	150	No	49.8	100.0

Source: NRCS (2024a)

Aerial Photographs and Imagery:

Historic and current aerial photographs of the survey area (Google Earth Pro 2024) appear to concur with the NWI and NHD findings above. No additional potential non-wetland waters were identified from imagery for further evaluation during the field survey.

4.1.1.1 HYDROLOGY

USGS Topography and Watershed Boundaries:

The survey area is located between 6,988 and 7,015 feet above mean sea level and is within the Escavada Wash watershed (HUC 1408010603). The proposed project is intersected by two NHD-mapped flowlines traversing southwestward into Escavada Wash, which is situated approximately 4 miles southwest of the proposed project.

USGS StreamStats:

Based on the desktop review of StreamStats, there are two basins that enter the survey area and slope primarily from northeast to southwest at an average slope of 1.8%. The drainage area is approximately 0.27 square mile, and the 100-year peak flow, or 1% annual chance flood, is 556 cubic feet per second (USGS 2018). This indicates that there could be impacts to surface water hydrology and flow across the survey area. Basin details are provided in Table 3.

Table 3. Basins within the Survey Area

Site Identification	SWCA Unique Identifier	Drainage Area (square miles)	Slope (%)	100-Year Peak Flow (cfs)
NM20240502180050296000	StreamStats 1	0.17	1.73	295
NM20240502180425856000	StreamStats 2	0.1	1.86	261
		Total: 0.27	**Average: 1.8**	**Total: 556**

*Standard river flow measurements are measured in cubic feet per second, otherwise known as cfs.

Disclaimer: SWCA did not perform any hydrologic analysis for the site and does not recommend using the hydrologic parameters in this section (results based on StreamStats) as the basis for a hydrologic investigation or to inform design criteria.

4.1.1.2 CLIMATE

Antecedent Precipitation Tool:

The USACE's APT results indicate that the site visit on April 16, 2024, was conducted under normal conditions (Product of – 13) during the dry season in a period of mild drought conditions (drought index) and approximately 0.84 inch of precipitation was observed in the preceding 30 days, which is normal for the 30-year Normal Range (Appendix B) (USACE 2024). Therefore, conditions during the site visit did represent a typical year (rolling 30-year period) (Appendix B).

EPA's Seasonally Dry Period Locator Tool:

The survey site is in a semi-arid area, and no particular months are considered seasonally dry at the project site (EPA 2022).

NRCS Climate Analysis for Wetlands Tables (WETS Tables):

The approximate growing season in the region is May 4 through October 21 according to the NRCS National Water and Climate Center (WETS Station: Lybrook, NM) (NRCS 2024b).

Western Regional Climate Center:

The climatic records for Lybrook, New Mexico (Cooperative Observer Program Station No. 295290), indicate that the survey area has an average annual maximum temperature of 61.1 degrees Fahrenheit (°F) and an average annual minimum temperature of 34.9°F. The average annual rainfall in the survey area is 10.83 inches, most of it occurring between July and October, while the average annual total snowfall, which largely occurs November through March, is 25.3 inches (WRCC 2024).

4.1.1.3 WATER QUALITY

EPA Stormwater Discharge Mapping Tool:

According to the EPA's Stormwater Discharge Mapping Tool, the survey area does not discharge to any water catchments or impaired waters (EPA 2023e; NMED SWQB 2024).

New Mexico Clean Water Act 303(d)/305(b) Integrated Report:

The survey area does not discharge to any assessment units listed as impaired in the *2024–2026 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report* (NMED SWQB 2024).

4.1.2 Groundwater Resources

4.1.2.1 POINTS OF DIVERSION

According to the NMOSE, there are no diversions to surface and/or groundwater resources within 0.5 mile (2,640 feet) of the survey area (NMOSE 2017). This indicates that impacts to groundwater wells and PODs are unlikely.

4.1.2.2 GROUNDWATER DEPTH

Based on the New Mexico Water Rights Reporting System, water levels for three wells across the San Juan Basin, in Sandoval County, averaged 166 feet below the ground surface with a standard deviation of 66 feet. This indicates significant variability around the reported average (NMOSE 2010).

4.2 Aquatic Resources Field Survey

SWCA conducted an aquatic resources delineation field survey on April 16, 2024. Although the NRCS National Water and Climate Center approximates that the growing season is May 4 through October 21 for the region, woody deciduous plants and herbaceous plants were beginning to leaf out and were identifiable. Additionally, there was no snow cover on the ground. Weather conditions during the field survey consisted of temperatures of approximately 42°F to 47°F, with winds of 14 to 26 miles per hour and sunny skies. The field survey results are described below.

4.2.1 Three-Parameter Wetlands

During the delineation survey, the nature of potential three-parameter wetlands was investigated within the survey area. Based on field observations, the SWCA field crew determined that no features within the survey area meet the three-parameter wetland criteria by exhibiting hydrophytic vegetation, hydric soil, and hydrology indicators (see Figure A-2 in Appendix A). All potential wetlands investigated coincided with NWI-mapped features. No additional possible wetlands were observed within the survey area.

4.2.2 Non-wetland Waters

During the April 2024 delineation survey, the lateral extent of potentially jurisdictional non-wetland waters (i.e., ponds, creeks, streams, lakes) was identified by the presence of an OHWM. SWCA observed two non-wetland water features within the survey area (ST01 and ST02) that did not exhibit strong relevant and reliable OHWM indicators. Both ST01 and ST02 coincide with NHD-mapped features (see Figure A-2 in Appendix A, and Photographs C-1 through C-4 in Appendix C). Because the two features did not exhibit an OHWM, SDAM analysis was not conducted. Table 4 summarizes the non-wetland water features investigated within the survey area.

Table 4. Summary of Non-Wetland Water Features, Total Acreage, and Total Linear Feet of Features within the Survey Area

SWCA Unique Identifier	Coinciding Mapped NHD Feature Type	OHWM Present (Yes/No)	NWI-Mapped Wetland Classification	Wetland Present (Yes/No)	FEMA Flood Zone	Latitude, Longitude	Total Acres of OHWM within Survey Area	Total Linear Feet of OHWM within Survey Area
ST01	Stream/river	No	R4SBJ	No	Zone X	36.187415, −107.616342	N/A	N/A
ST02	Stream/river	No	N/A	No	Zone X	36.185661, −107.614238	N/A	N/A

N/A = not applicable.

Zone X = area of minimal flood hazard.

R = Riverine system, including all wetlands contained within a channel except wetlands dominated by trees, shrubs, persistent emergent, emergent mosses, or lichens and habitat containing ocean-derived salts of 0.5 parts per thousand or greater

4 = Intermittent

SB = Streambed, includes wetlands contained within the intermittent subsystem of the riverine system and all channels of the estuarine system.

J = Intermittently Flooded

5 DISCUSSION AND RECOMMENDATIONS

SWCA conducted a desktop review of existing publicly available data prior to conducting the aquatic resources field survey to evaluate surface aquatic resources and groundwater resources within and adjacent to the proposed project area. The aquatic resources field survey was conducted on April 16, 2024, to inventory both three-parameter wetlands and non-wetland waters. A discussion of the findings and regulatory implications is presented below.

5.1 Surface Aquatic Resources

5.1.1 Wetlands and Non-wetland Waters

During the aquatic resources field survey, SWCA did not identify wetlands or non-wetland waters, including watercourses, within the survey area.

SWCA's professional opinion is that there are no potentially jurisdictional features in the survey area; however, only the USACE has final and legal authority for determining the presence of jurisdictional WOTUS and the extent of their boundaries.

Additionally, due to the lack of wetlands and non-wetland waters, SWCA's professional opinion is that there are no "watercourses" present for the purposes of obtaining permitting or registration under 19.15.34 NMAC. However, only the NMOCD has final and legal authority for determining the presence of "watercourses".

5.2 Groundwater Resources

5.2.1 Points of Diversion

There are no groundwater wells or PODs within a 0.5-mile radius of the project area. Therefore, in regard to Form C-147, there are no freshwater wells used for domestic or stock watering purposes within 500 feet of the recycling containment.

5.2.2 Groundwater Depth

Regarding compliance with groundwater depth siting criteria in 19.15.34 NMAC, recorded groundwater depths for the San Juan Basin in Sandoval County average 166 feet below the surface; however, there is significant variation around the reported average, indicating depth to groundwater varies significantly throughout the basin. SWCA therefore recommends obtaining site-specific data on depth to groundwater to ensure compliance with the siting criterion that depths be greater than 50 feet (NMOSE 2010).

5.3 Regulatory Permitting Considerations

5.3.1 Clean Water Act Sections 404 and 401

SWCA did not identify any surface aquatic features within the survey area. It is SWCA's understanding that the project was in compliance with CWA Sections 404 and 401 at the time of survey.

It is SWCA's understanding that no disturbances are proposed, including dredge and fill, within potentially jurisdictional WOTUS features at this time, as no potentially jurisdictional WOTUS per the 2023 Amended Rule were observed during the aquatic resources survey. However, it is incumbent upon Enduring to remain informed of any changes in the regulations and policy as they relate to the project. If the project plans change such that WOTUS could be impacted by the proposed project, a reevaluation of permit requirements is recommended.

5.3.2 19.15.34 New Mexico Administrative Code

The proposed project involves recycling containment and therefore must comply with the siting criteria of 19.15.34 NMAC. SWCA did not observe continuously flowing watercourses or wetlands within 500 feet of the proposed recycling containment.

Therefore, SWCA's professional opinion is that the recycling containment meets the 19.15.34 NMAC requirement regarding proximity to watercourses.

However, as stated above, depth to groundwater varies significantly throughout the basin (NMOSE 2010). SWCA therefore recommends obtaining site-specific data on depth to groundwater to ensure compliance with the siting criterion that depths be greater than 50 feet.

Table 5 summarizes the siting criteria in 19.15.34 NMAC as they pertain to the recycling containment's distance to aquatic resources.

Table 5. Recycling Containment Distance to Aquatic Resources Relevant to 19.15.34 NMAC Siting Criteria

19.15.34 NMAC Siting Criteria	Recycling Containment is Located within Prohibited Distance of Aquatic Resource (Yes/No)	Recycling Containment Distance from Aquatic Resource
Groundwater is less than 50 feet below the bottom of the recycling containment	Unknown	Average depth to water is 166 feet below the surface (NMOSE 2010); however, depth to groundwater varies significantly throughout the basin. SWCA recommends obtaining site-specific data on depth to groundwater to ensure compliance with the siting criterion that depths be greater than 50 feet.
Within a 100-year floodplain	No	Greater than 1.0 mile to nearest 100-year floodplain (FEMA 2024)
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)	No	No streams exhibiting OHWMs and deemed watercourses that are potentially significant observed within 200 feet of the recycling containment
Within 500 horizontal feet of a spring or a freshwater well used for domestic or stock watering purposes, in existence at the time of initial application	No	No spring or freshwater well observed in field or recorded by NMOSE within 500 feet of recycling containment (NMOSE 2017)
Within 500 feet of a wetland	No	No wetlands, including jurisdictional 3-parameter wetland or 19.15.34 NMAC–defined wetland, observed within 500 feet of recycling containment

5.3.3 Floodplains

The proposed project is not located within a FEMA-mapped regulatory flood zone such as areas within the 1% or 0.2% annual chance of flood; therefore, approval by the local Floodplain Administrator to ensure that the proposed project meets the requirements of the National Flood Insurance Program and local floodplain management ordinances per Executive Order 11988 is not required. If there are any changes to the proposed project and floodplains are not avoided, SWCA recommends reevaluating the proposed project.

The proposed recycling containment is not within 100 feet of the FEMA-mapped 100-year flood zone. Therefore, the recycling containment location adheres to the 19.15.34 NMAC siting criteria for floodplains.

5.3.4 Preliminary Stormwater Discharges

Based on the EPA's discharge mapper tool and the New Mexico Integrated Report, the project site does not have the potential to discharge to an impaired water body.

National Pollutant Discharge Elimination System (NPDES) permitting is not required for discharges of stormwater runoff from oil and gas exploration, production, processing, or treatment operations in accordance with CWA Section 402.

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APPENDIX A

Aquatic Resources Inventory Maps

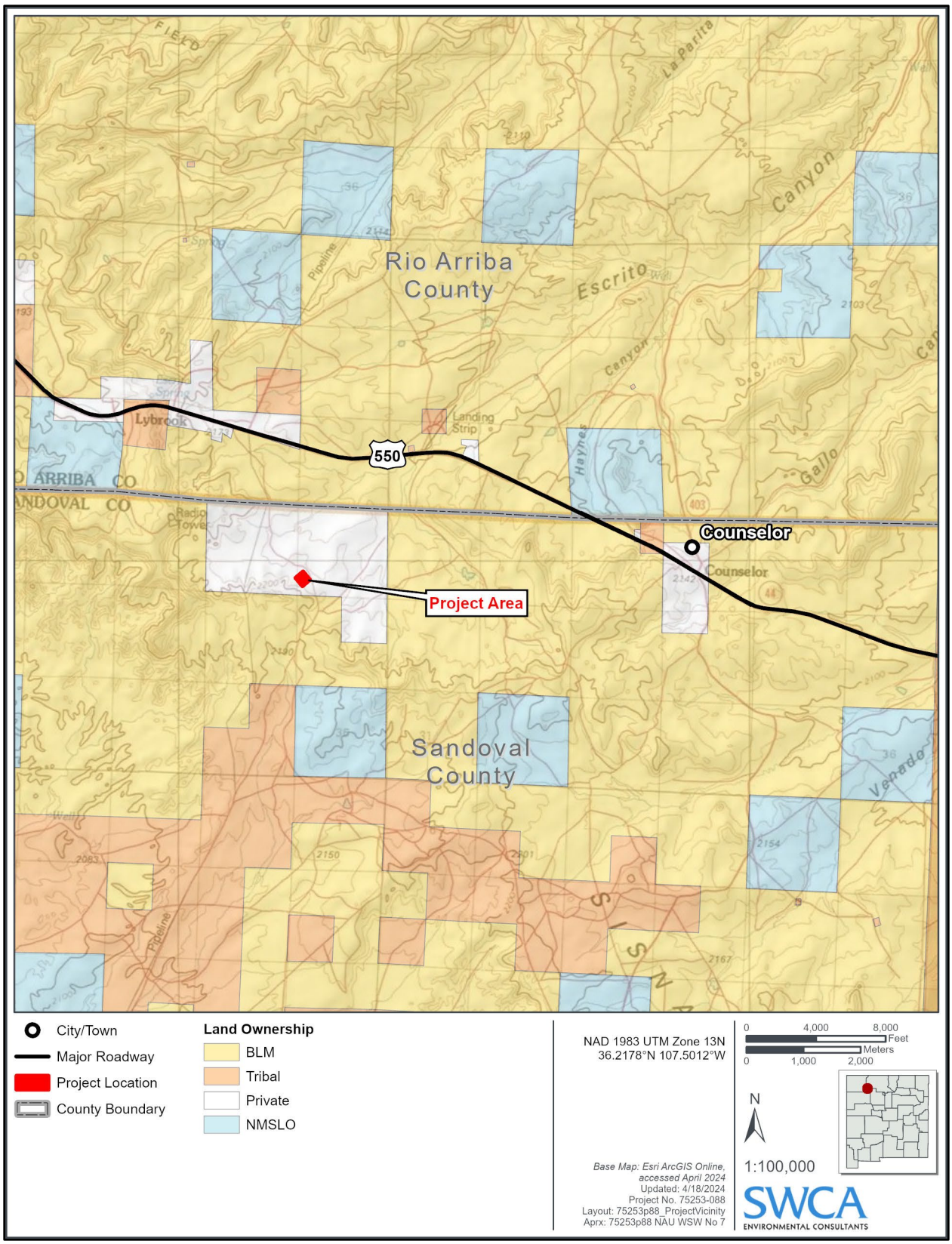

Figure A-1. Project vicinity map.

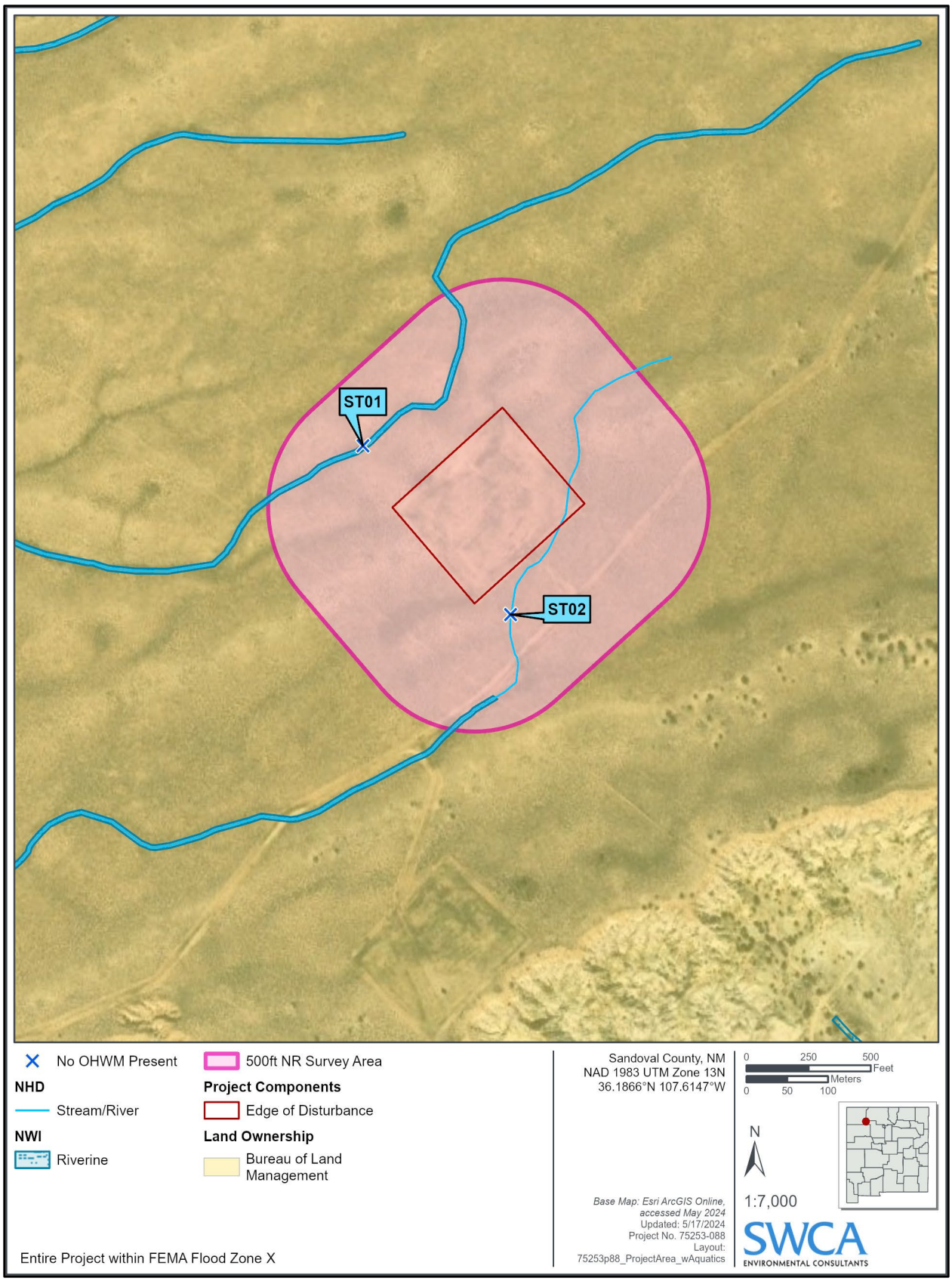

Figure A-2. Overview of aquatic resources within the survey area.

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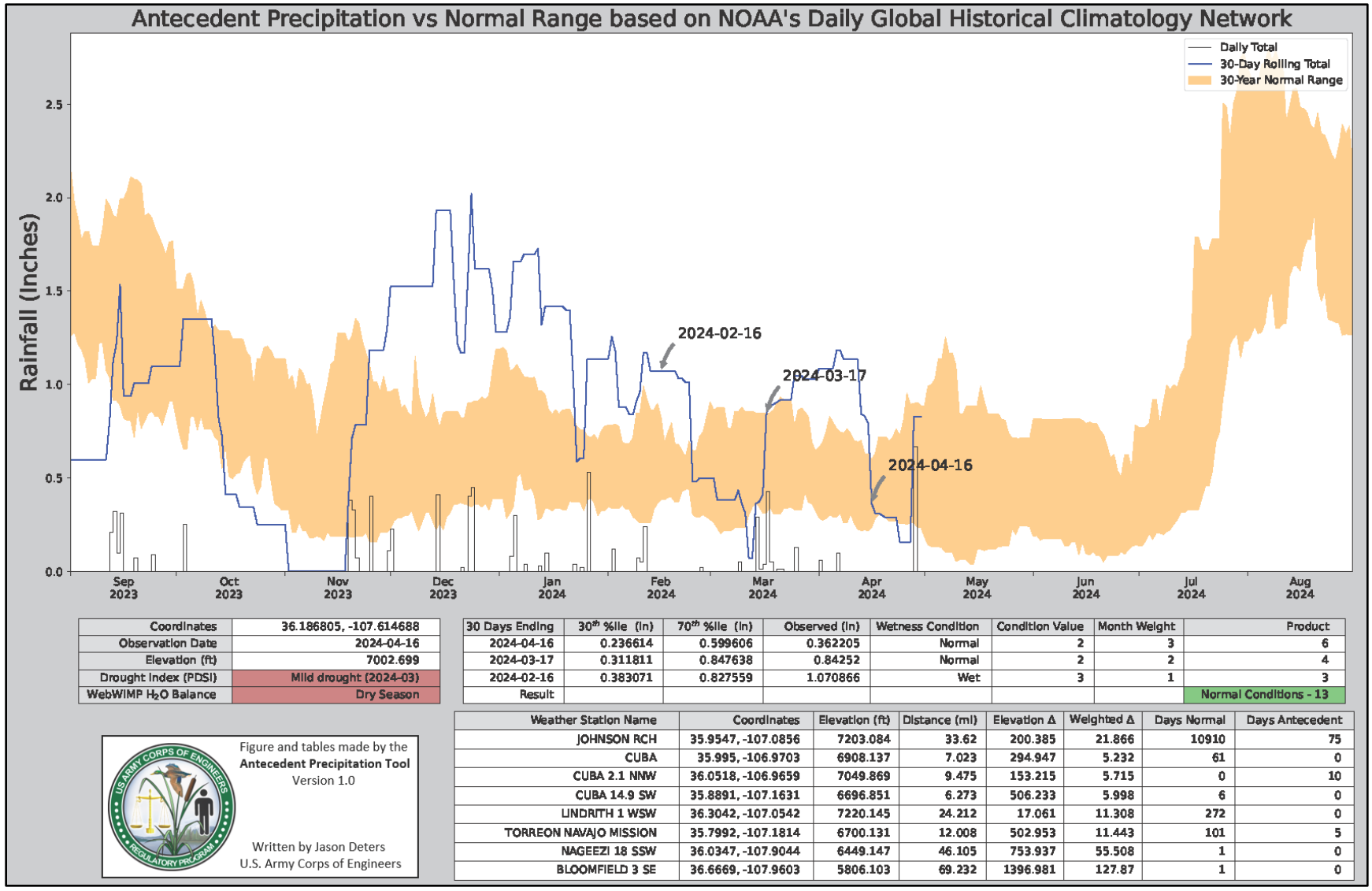
APPENDIX B

APT Report



Coordinates	36.186805, -107.614688
Observation Date	2024-04-16
Elevation (ft)	7002.699
Drought Index (PDSI)	Mild drought (2024-03)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-16	0.236614	0.599606	0.362205	Normal	2	3	6
2024-03-17	0.311811	0.847638	0.84252	Normal	2	2	4
2024-02-16	0.383071	0.827559	1.070866	Wet	3	1	3
Result							Normal Conditions - 13

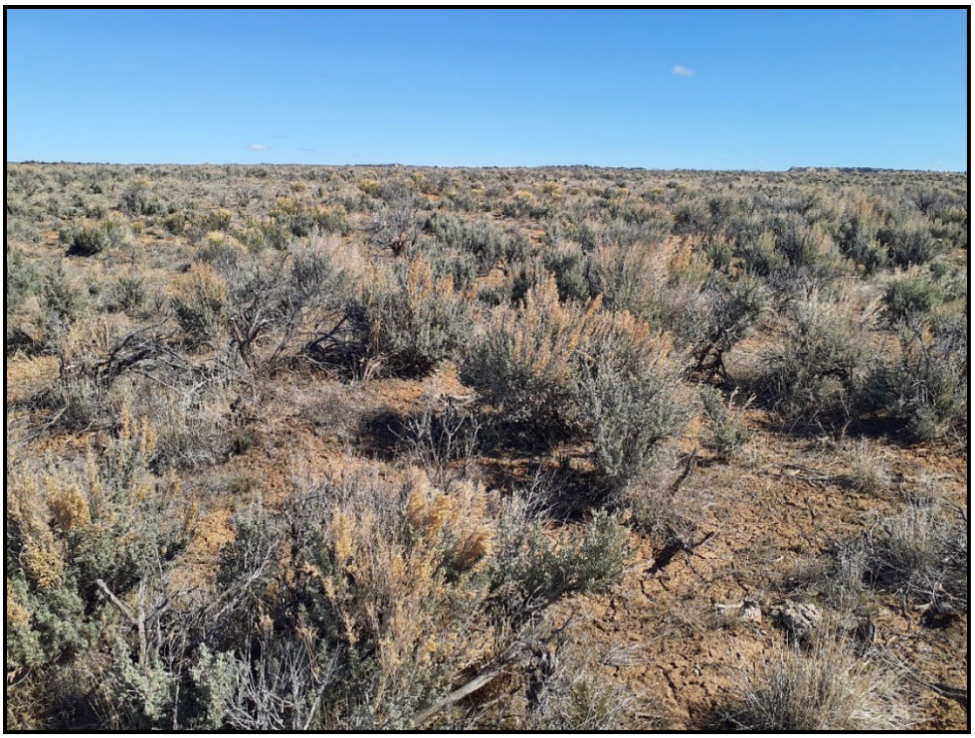
Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
JOHNSON RCH	35.9547, -107.0856	7203.084	33.62	200.385	21.866	10910	75
CUBA	35.995, -106.9703	6908.137	7.023	294.947	5.232	61	0
CUBA 2.1 NNW	36.0518, -106.9659	7049.869	9.475	153.215	5.715	0	10
CUBA 14.9 SW	35.8891, -107.1631	6696.851	6.273	506.233	5.998	6	0
LINDRITH 1 WSW	36.3042, -107.0542	7220.145	24.212	17.061	11.308	272	0
TORREON NAVAJO MISSION	35.7992, -107.1814	6700.131	12.008	502.953	11.443	101	5
NAGEEZI 18 SSW	36.0347, -107.9044	6449.147	46.105	753.937	55.508	1	0
BLOOMFIELD 3 SE	36.6669, -107.9603	5806.103	69.232	1396.981	127.87	1	0

APPENDIX C

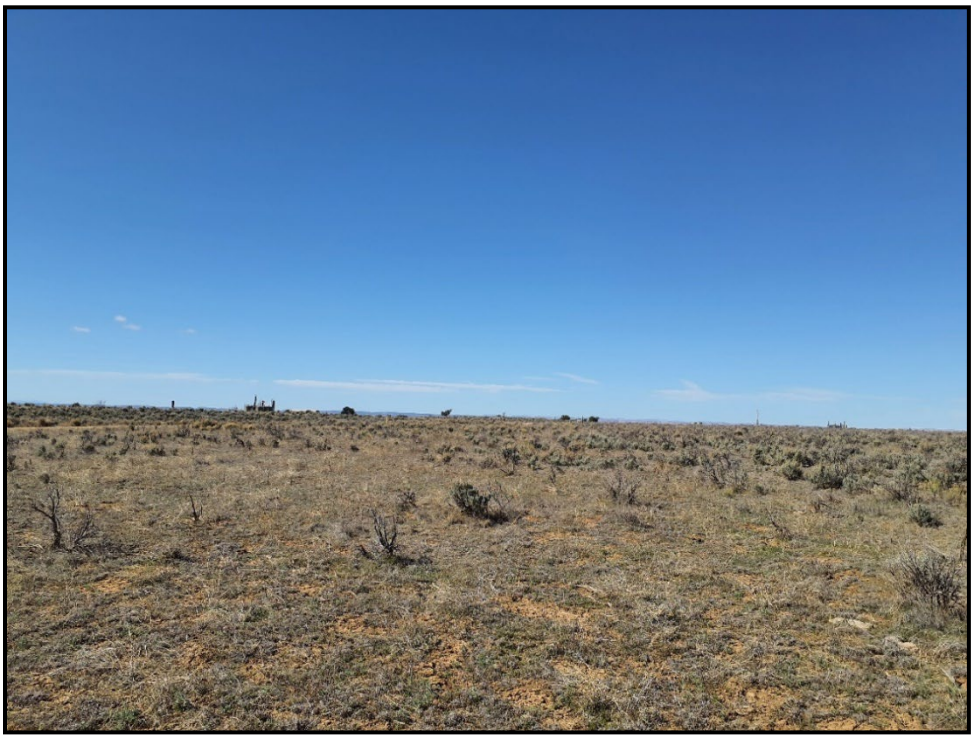
Photographs



Photograph C-1. Overview of ST01, an NHD- and NWI-mapped feature not containing an OHWM, facing upstream (north).

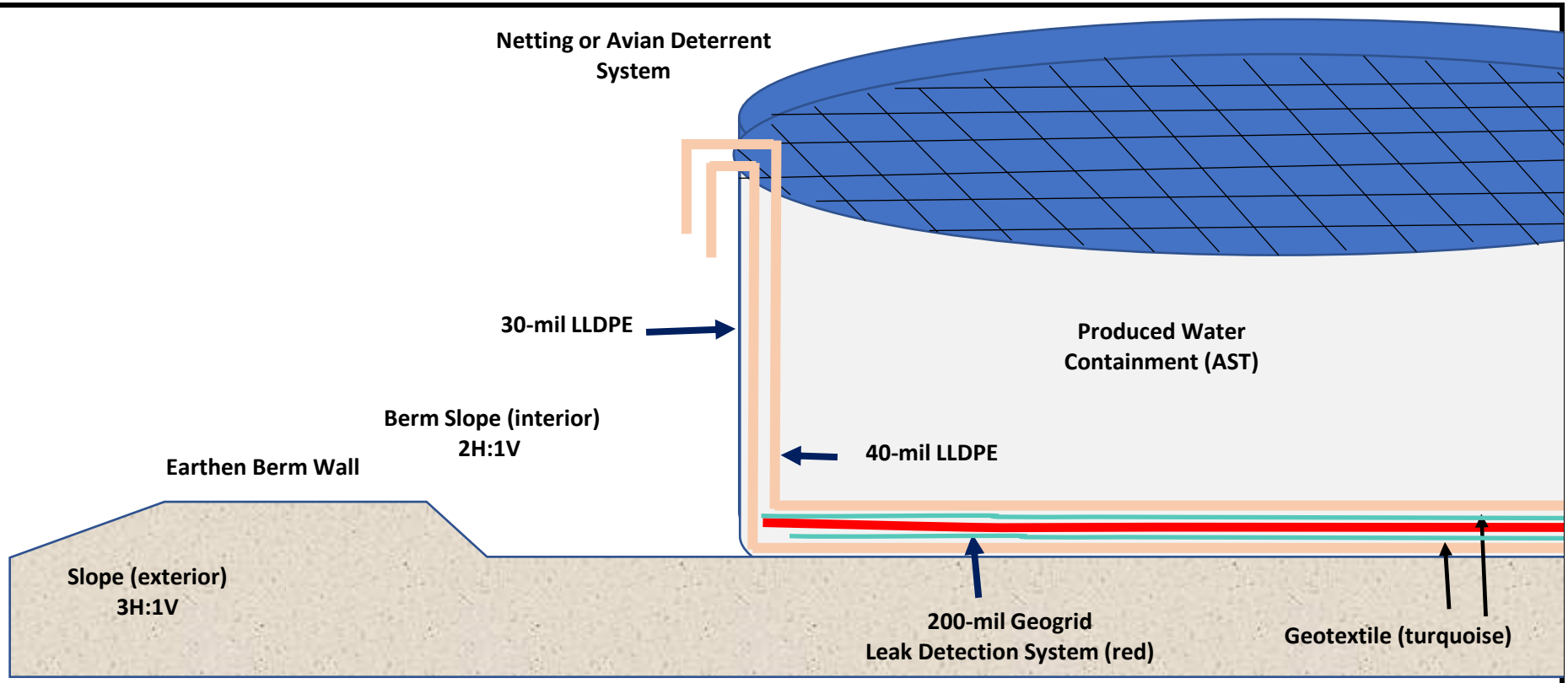
Photograph C-2. Overview of ST01an NHD- and NWI-mapped feature not containing an OHWM, facing downstream (south).

Photograph C-3. Overview of ST02, an NHD-mapped feature not containing an OHWM, facing upstream (north).



Photograph C-4. Overview of ST02, an NHD-mapped feature not containing an OHWM, facing downstream (south).

EXHIBIT G. MANUFACTURE SPECIFICATION



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)

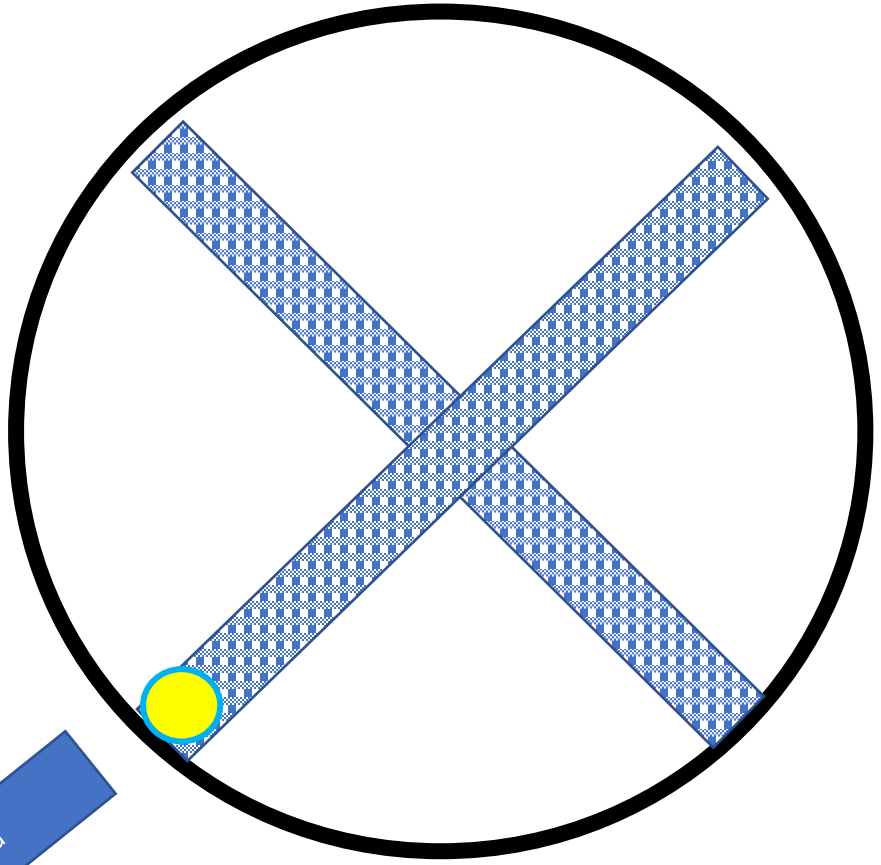
R.T. Hicks Consultants Albuquerque, NM	**Design Sketch**	**Plate 1**
	Well Water Solutions	**May-21**

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

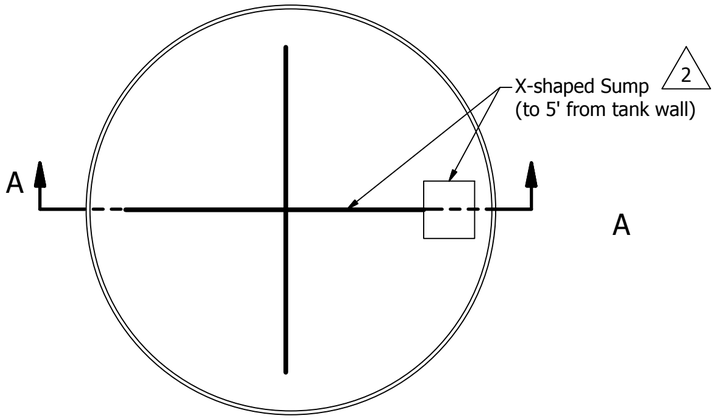


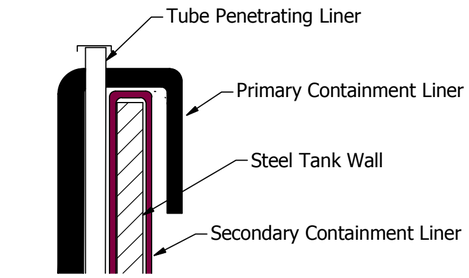
Sump Location

0 50 100

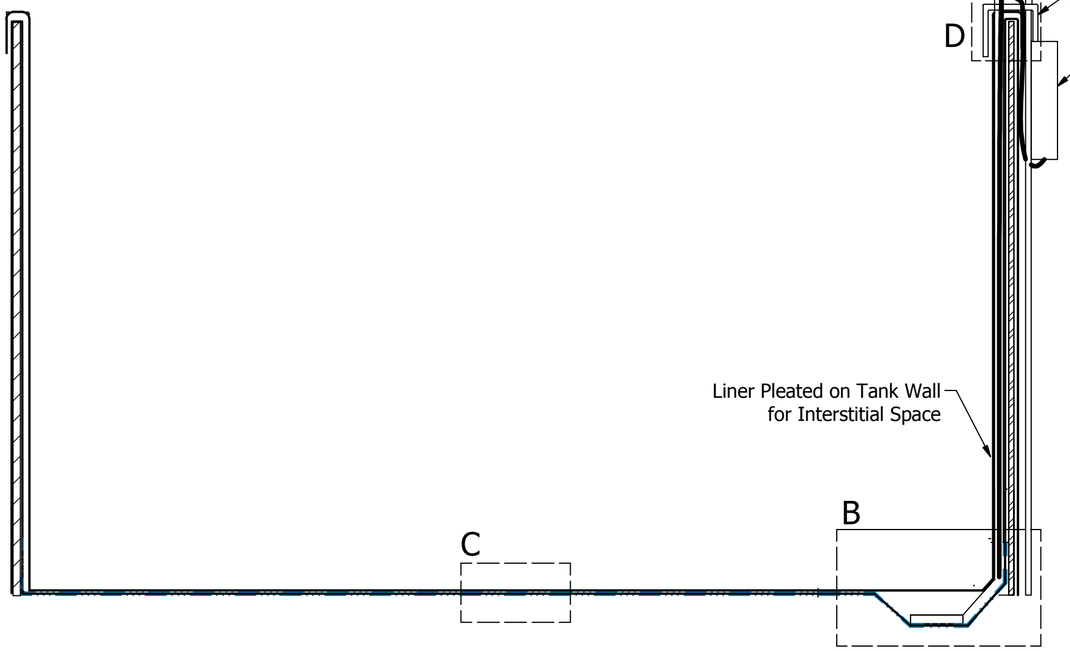
R.T. Hicks Consultants Albuquerque, NM	**Layout of Geogrid Drainage Mat**	**Plate 1**
	WWS - North Olympus AST	**June 2021**

WWS DOUBLE-LINED FRAC WATER TANK SYSTEM

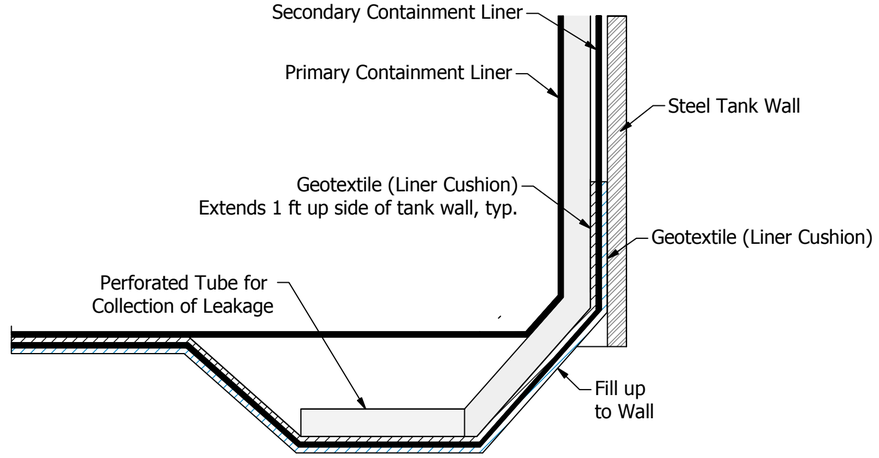




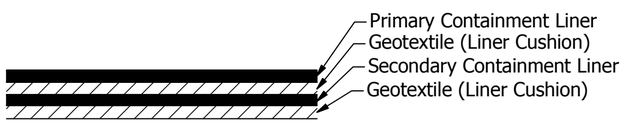
SECTION D
TUBE DETAIL
(Automated Leak Detection System Removed for Clarity)



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

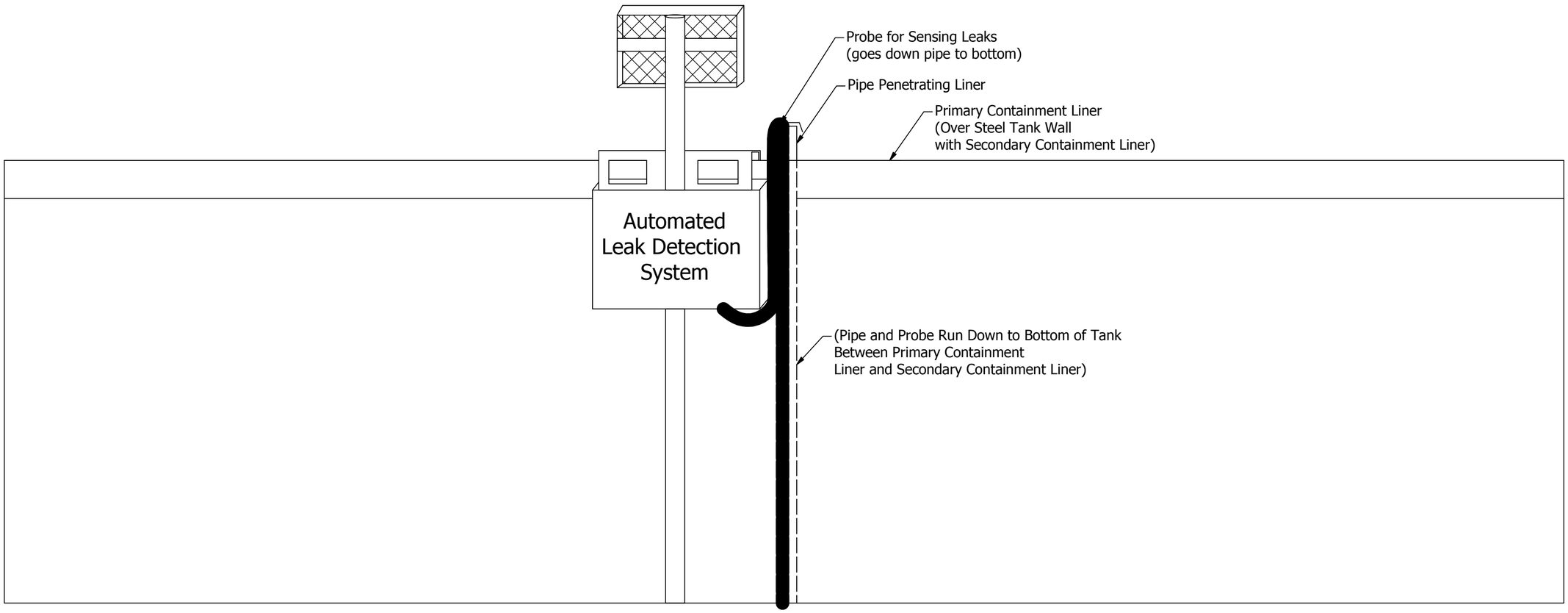
TITLE	Double-Lined Frac Tank System
CUSTOMER	
PROJECT/JOB	WWS Double-Lined Tank System
APPROVAL	
DRAFTER	SES
DATE	10/28/2015

WELL WATER SOLUTIONS AND RENTALS, INC.

SIZE	DWG NO	REV
C	LDD15-WWS-02	3

SHEET 1 OF 2

1 AUTOMATED LEAK DETECTION SYSTEM

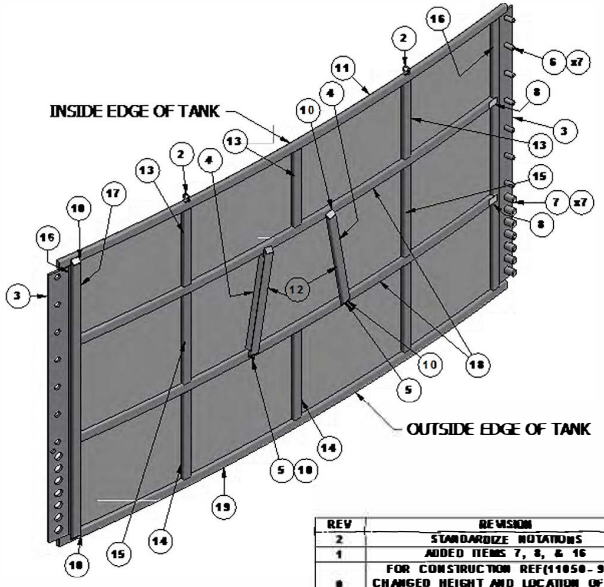


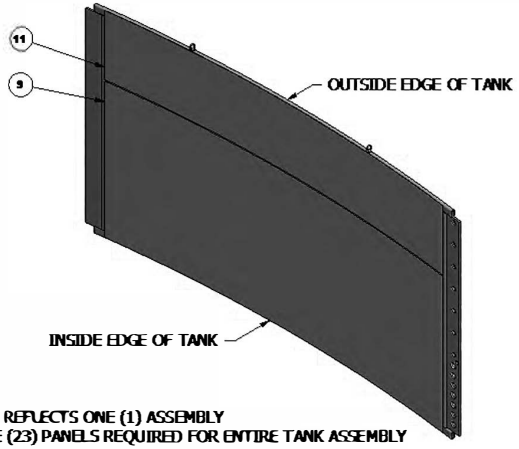
TITLE: Double-Lined Frac Tank System			
CUSTOMER			
PROJECT/JOB: WWS Double-Lined Tank System			
APPROVAL			
DRAFTER: SES	DATE: 10/28/2015		
		SIZE: C	DWG NO: LDD15-WWS-02 / REV: 3

SHEET 2 OF 2

Parts List

CK	ITEM	QTY	DESCRIPTION	WIDTH	LENGTH	MATERIAL	CLENGTH (in)	WEIGHT
	1	14	BAR, ROUND, 5/8" (LOCK PIN)		6 1/2 in	A36	6.50	
	2	2	D-RING, 1/2" B38, WORKING LOAD 4000 lbs			A29/A29M - 91 1045(C-1045), MODIFIED TO WELD DOWN		2
	3	2	FBAR, 1"	10 in	131 1/2 in	A36	131.50	373
	4	2	FBAR, 10GA	3 in	43 1/8 in	A36	86.25	99
	5	2	PAD EYE, #2			CROSBY GROUP, S-264		0
	6	7	PIN, 2" DIA		4 1/2 in	KUSTOM KONCEPTS, A1018	31.50	3
	7	7	PIN, 3 " DIA		4 1/2 in	KUSTOM KONCEPTS, A1010	31.50	8
	8	2	PLATE, 3/16"	3 in	5 in	A36	10.00	2
	9	1	PLATE, 3/16"	96 in	240 in	A36	240.00	156
	10	6	SHEET, 10GA	2 1/2 in	3 3/4 in	A36	22.50	3
	11	1	SHEET, 10GA	42 1/2 in	240 in	A36	240.00	50
	12	2	TUBE, 4" x 2" x 1/4" (MITER BOTH ENDS)		52 in	A500B CLEAN COAT	104.00	55
	13	3	TUBE, 4" x 2" x 3/16"		37 1/4 in	A500B CLEAN COAT	74.50	43
	14	3	TUBE, 4" x 2" x 3/16"		42 3/4 in	A500B CLEAN COAT	128.25	74
	15	2	TUBE, 4" x 2" x 3/16"		44 in	A500B CLEAN COAT	88.00	50
	16	2	TUBE, 4" x 2" x 3/16"		132 in	A500B CLEAN COAT	264.00	151
	17	1	TUBE, 4" x 2" x 3/16" (MITER BOTH ENDS)		137 1/2 in	A500B CLEAN COAT	137.50	78
	18	2	TUBE, 4" x 2" x 3/16", (ROLL TO 155'-6 7/8" I.D.)		236 3/8 in	A500B CLEAN COAT	472.75	271
	19	2	TUBE, 4" x 2" x 3/16", (ROLL TO 155'-6 7/8" I.D.)		253 7/8 in	A500B CLEAN COAT	507.75	291





NOTES:
-THIS DRAWING REFLECTS ONE (1) ASSEMBLY
-TWENTY THREE (23) PANELS REQUIRED FOR ENTIRE TANK ASSEMBLY

REV	REVISION	DATE	BY
2	STANDARDIZE NOTATIONS	1/17/2012	JDV
1	ADDED ITEMS 7, 8, & 16	12/09/11	DSG
0	FOR CONSTRUCTION REF(11050-901) CHANGED HEIGHT AND LOCATION OF PINS REF(11078-40-901)	9/1/2011	CJD

FabTech
A NALCO COMPANY
4500 33 Mile Road
Casper, WY 82601
(307)472-9740

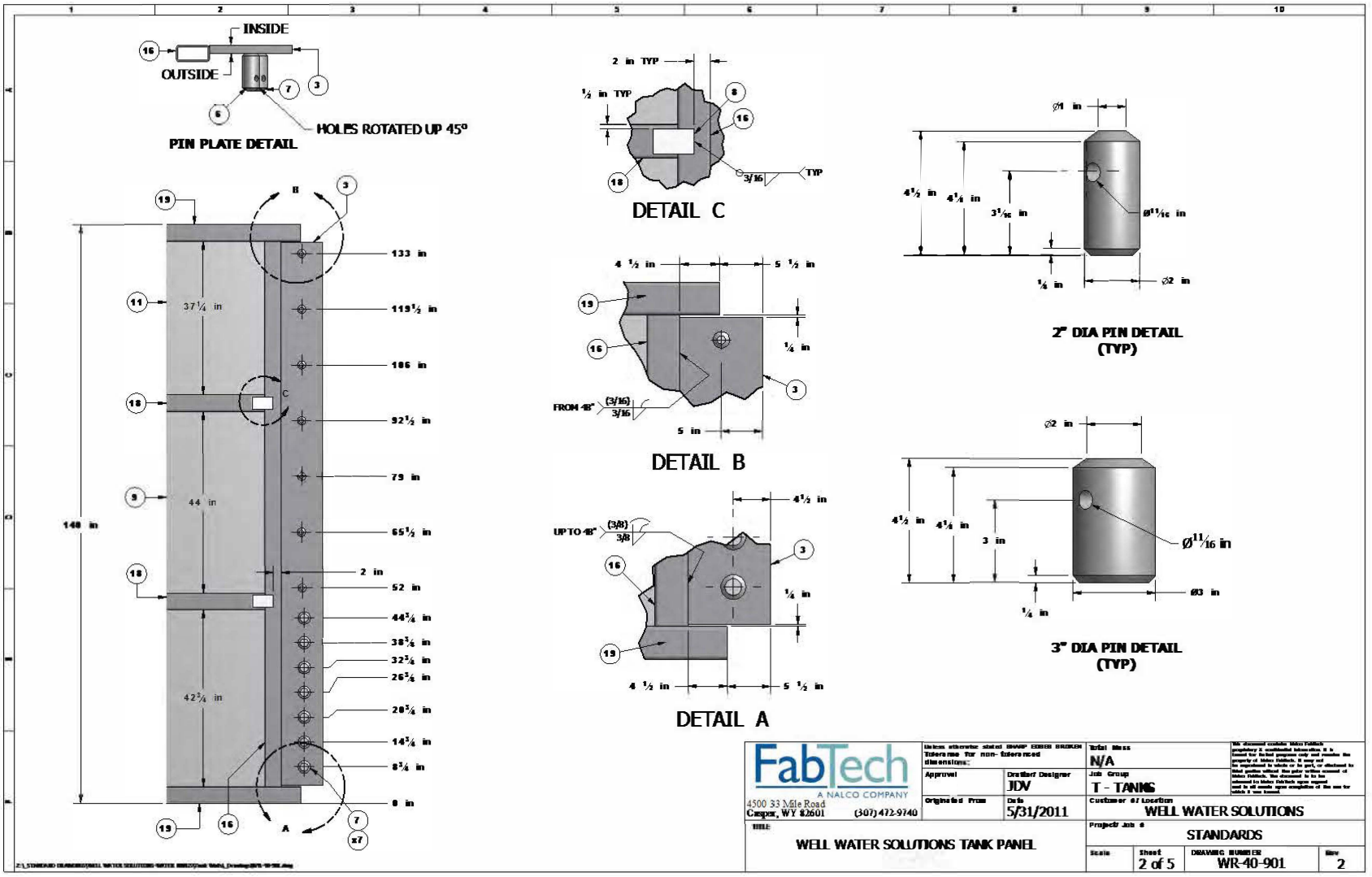
Unless otherwise stated SHARP EDGES BROKEN
Tolerance for non-toleranced dimensions:

Approval | Drafted Designer: JDV | Originated From | Date: 5/31/2011

Weight: N/A
Job Group: T - TANKS
Customer or Edge Run: WELL WATER SOLUTIONS
Project Job #: STANDARDS

TITLE: WELL WATER SOLUTIONS TANK PANEL

Scale | Sheet: 1 of 5 | DRAWING NUMBER: WR-40-901 | Rev: 2



FabTech
A NALCO COMPANY
4500 33 Mile Road
Casper, WY 82601 (307) 472-9740

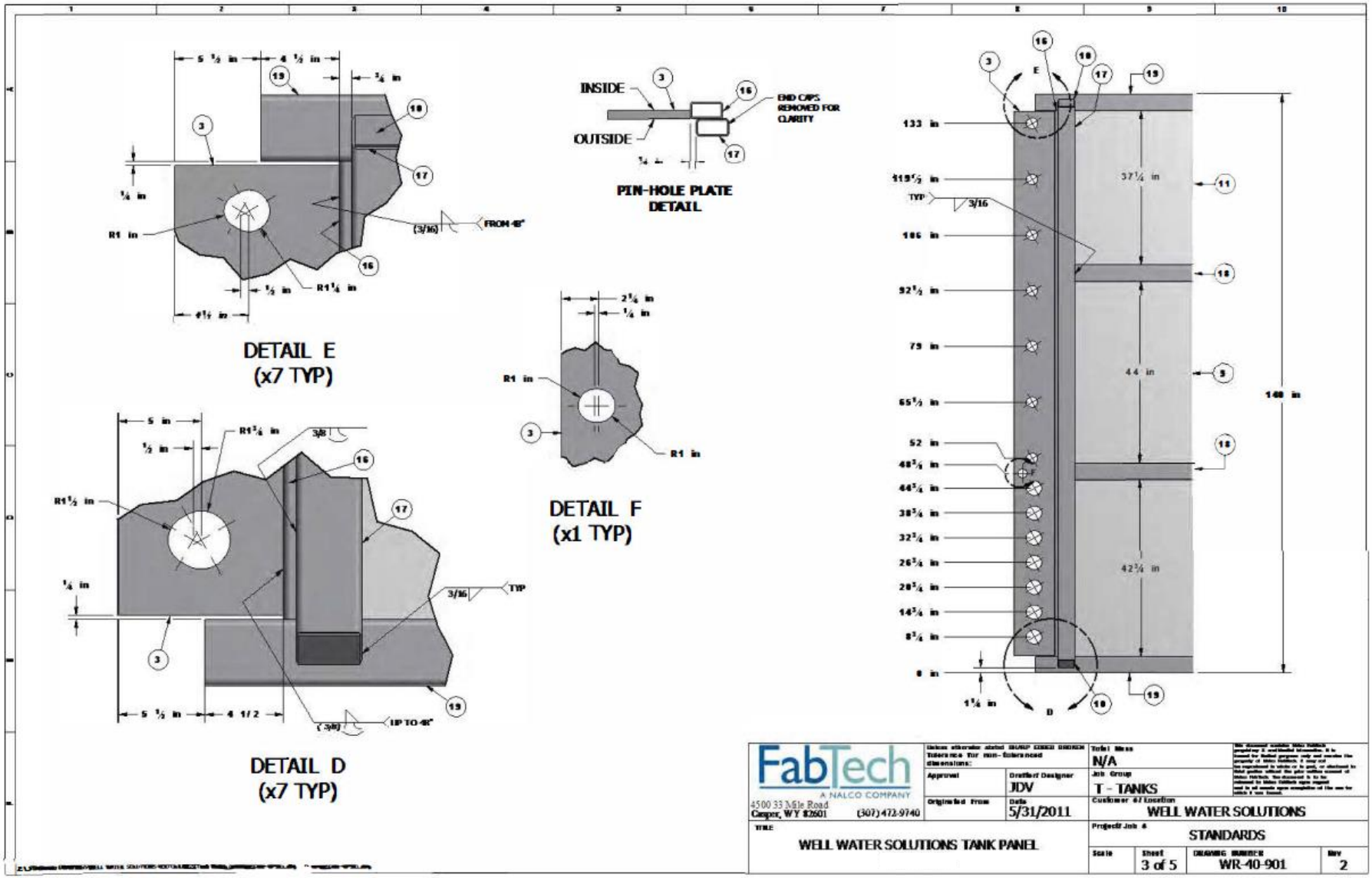
Unless otherwise stated SHARP EDGES BROKEN
Tolerance for non-toleranced dimensions:

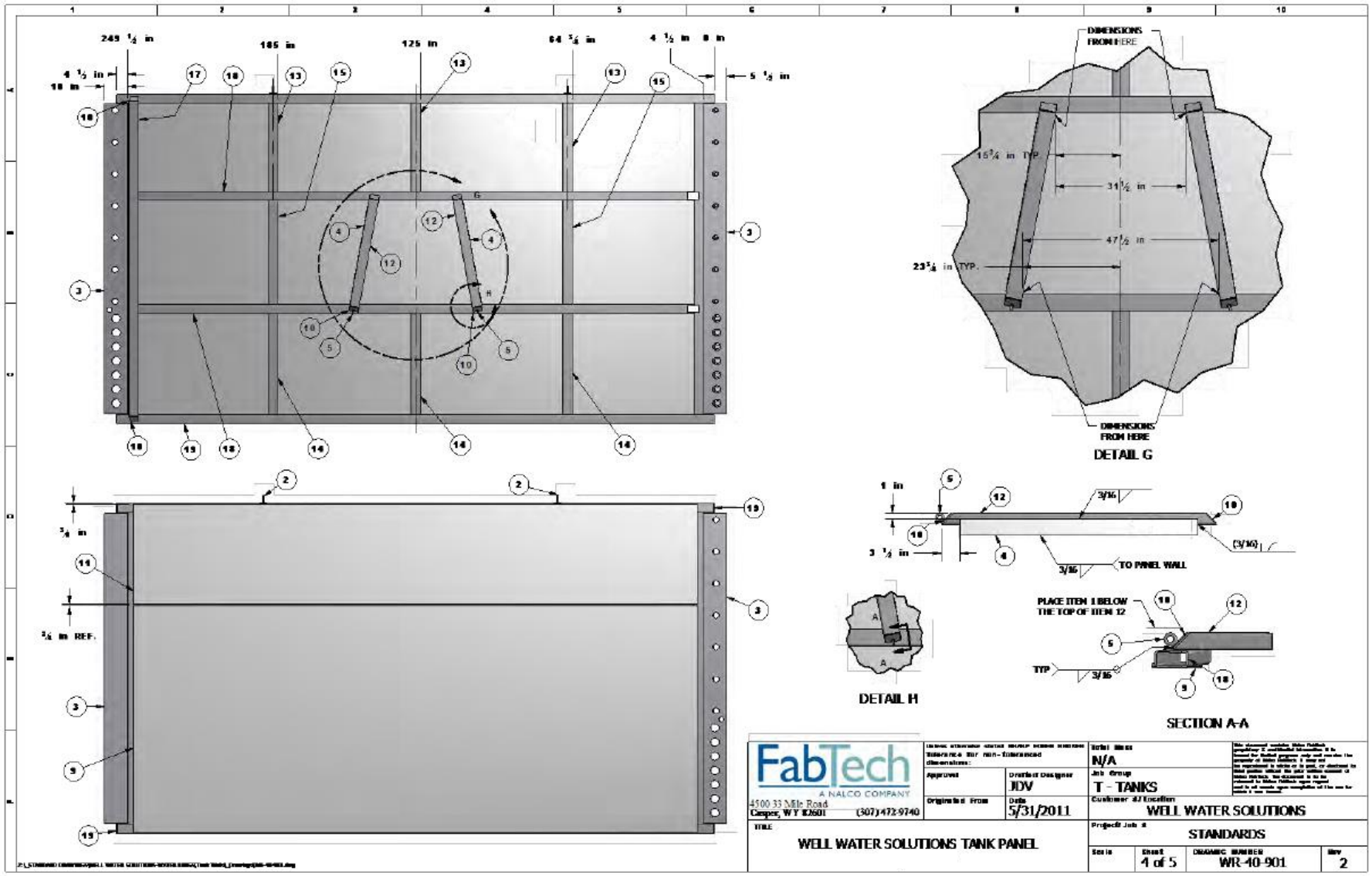
Approval
Drafted Designer: JDV
Originated From
Date: 5/31/2011

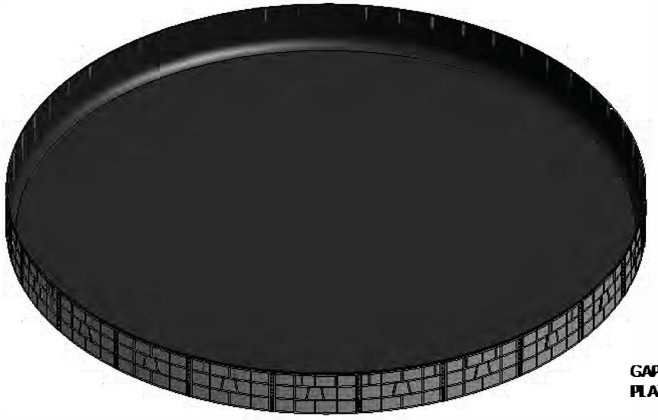
Total Mass: N/A
Job Group: T - TANKS
Customer or Location: WELL WATER SOLUTIONS
Project Job #: STANDARDS

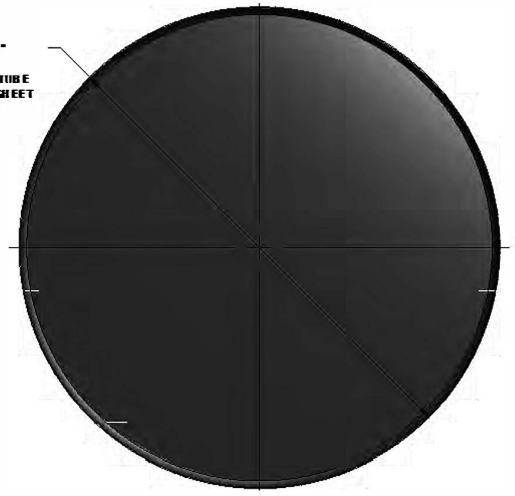
TITLE: WELL WATER SOLUTIONS TANK PANEL

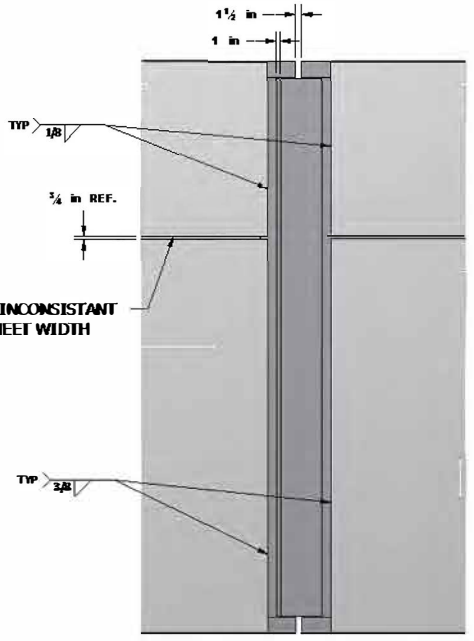
Scale
Sheet: 2 of 5
DRAWING NUMBER: WR-40-901
Rev: 2


DETAIL E
(x7 TYP)
INSIDE
OUTSIDE
END CAPS REMOVED FOR CLARITY
PIN-HOLE PLATE DETAIL
DETAIL F
(x1 TYP)
DETAIL D
(x7 TYP)
133 in
119½ in
106 in
92½ in
79 in
65½ in
52 in
48¾ in
44¾ in
38¾ in
32¾ in
26¾ in
20¾ in
14¾ in
8¾ in
0 in
37¼ in
44 in
42¾ in
148 in
FabTech
A NALCO COMPANY
4500 33 Mile Road
Casper, WY 82601
(307) 472-9740
Drafted/Designed: JDV
Date: 5/31/2011
Total Mass: N/A
Job Group: T - TANKS
Customer & Location: WELL WATER SOLUTIONS
Project/Job #: STANDARDS
TITLE: WELL WATER SOLUTIONS TANK PANEL
Scale:
Sheet: 3 of 5
DRAWING NUMBER: WR-40-901
Rev: 2

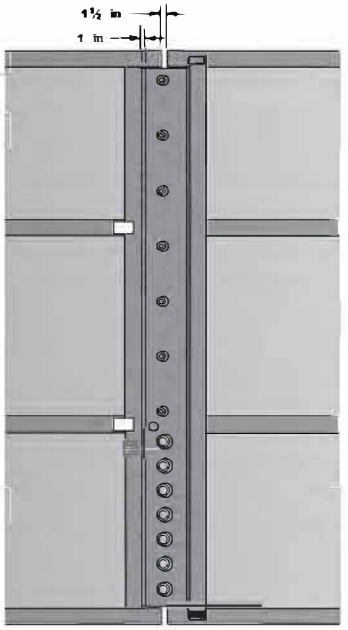

249 ½ in
185 in
125 in
64 ⅝ in
4 ½ in
8 in
4 ½ in
18 in
5 ½ in
DIMENSIONS FROM HERE
15¾ in TYP.
31½ in
47½ in
23¾ in TYP.
DIMENSIONS FROM HERE
DETAIL G
1 in
3 ½ in
3/16
(3/16)
TO PANEL WALL
PLACE ITEM 1 BELOW THE TOP OF ITEM 12
TYP
3/16
DETAIL H
SECTION A-A
¾ in
¾ in REF.
FabTech
A NALCO COMPANY
4500 33 Mile Road
Casper, WY 82601
(307) 472-9740
Approved
Drafted Designer
JDV
Originated From
Date
5/31/2011
Job Group
T - TANKS
Customer ID / Location
WELL WATER SOLUTIONS
STANDARDS
TITLE
WELL WATER SOLUTIONS TANK PANEL
Scale
Sheet
4 of 5
DRAWING NUMBER
WR-40-901
Rev
2







SEAM DETAIL
(INSIDE-OUT)



SEAM DETAIL
(OUTSIDE-IN)

FabTech
A NALCO COMPANY
4500 33 Mile Road
Casper, WY 82601 (307) 472-9740

Unless otherwise stated SHARP EDGES BROKEN
Tolerance for non-toleranced dimensions:

Approval | Drafter/ Designer: JDV | Originated From | Date: 5/31/2011

Total Mass: N/A
Job Group: T – TANKS
Customer or location: WELL WATER SOLUTIONS
Project/ Job #: STANDARDS

TITLE: WELL WATER SOLUTIONS TANK PANEL

Scale | Sheet: 5 of 5 | DRAWING NUMBER: WR-40-901 | Rev: 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

ENDURING RESOURCES IV LLC
6300 S Syracuse Way Centennial, CO 80111
Field Office: 505.636.9720 | Main Office: 303.573.1222

DJR Operating, LLC an Enduring Resources, LLC Company
North Alamito Unit Water Supply Well
Recycling Facility/Containment
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 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 shell. We believe this will provide equal or better protection than the requirements listed in 19.15.34.12. 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

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Wednesday, August 14, 2024 1:09 PM
To: Heather Huntington
Subject: 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355]
Attachments: C-147 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] 08.14.2024.pdf

3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355]

Good morning Ms. Huntington.
NMOCD has reviewed the recycling containment permit application and related documents, submitted by [371838] DJR OPERATING, LLC on 07/08/2024, Application ID 361621, for 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] in G-31-23N-07W, Sandoval County, New Mexico. [371838] DJR OPERATING, LLC requested variances from 19.15.34 NMAC for 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355].

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.

The form C-147 and related documents for 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] is 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] is approved for five years of operation from the date of permit application of 07/08/2024.
- 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] permit expires on 07/08/2029. 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 06/08/2029.
- 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] consists of one (1) above ground tank (ASTs) containment of 60,000.00 BBL and one (1) AST containment of 40,000 bbl, for a combined volume of 100,000 barrels. 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] in compliance with NMAC 19.15.34 NMAC.
- [371838] DJR OPERATING, LLC shall notify OCD, through OCD Permitting when construction of 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] commences.
- [371838] DJR OPERATING, LLC shall notify NMOCD through OCD Permitting when recycling operations commence and cease at 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355].
- A minimum of 3-feet freeboard must be maintained at 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] is considered ceased and a notification of cessation of operations should be sent electronically to OCD Permitting. A request to extend the cessation of operation, 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355].
- Per 19.15.34.14.G The re-vegetation and reclamation obligations imposed by federal, state trust land or tribal agencies on lands 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-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] in all future communications.
Regards,

Victoria Venegas ● Environmental Specialist
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 361621

CONDITIONS

Operator: DJR OPERATING, LLC 200 Energy Court Farmington, NM 87401	OGRID: 371838
	Action Number: 361621
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	NMOCD has reviewed and approved the recycling containment permit application and related documents, submitted by [371838] DJR OPERATING, LLC on 07/08/2024, Application ID 361621, for 3RF-73 - NORTH ALAMITO UNIT WATER SUPPLY WELL FACILITY ID [FVV2420636355] in G-31-23N-07W, Sandoval County, New Mexico.	8/14/2024