

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**APPLICATION OF RAZ OIL AND GAS L.L.C.  
TO APPROVE SALT WATER DISPOSAL  
WELL IN LEA COUNTY, NEW MEXICO.**

**CASE NO. \_\_\_\_\_**

**APPLICATION**

Raz Oil and Gas L.L.C. ("Raz"), OGRID No. 370507, through its undersigned attorneys, hereby submits this application to the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-12, Rule No. 19.15.26, and Rule 19.15.4.8 for an order authorizing Raz to plug back the YO State SWD #1 well to the Delaware Mountain Group and authorizing injection from the YO State SWD #1 well into the Delaware Mountain Group. In support of this application, Raz states as follows:

(1) Raz currently operates the YO State SWD #1 (API 30-025-38162) pursuant to Division Order SWD-1594, at a surface location 660' from the North line and 840' from the West line, Lot D, Section 15, Township 21 South, Range 35 East, NMPM, Lea County, New Mexico. Raz currently injects produced water into the Devonian formation.

(2) Raz seeks authority to plug back the YO State SWD #1 well to the Delaware Mountain Group and authority to inject produced water into the Delaware Mountain Group at a depth of approximately 5,540 feet to 6,930 feet.

(3) Raz requests that the Division approve a maximum daily injection rate for the well of 20,000 bbls per day.

(4) Raz requests approval of a maximum injection pressure of 1,108 psi for the well.

(5) A proposed C-108 for the subject well is attached hereto as Attachment A. Raz previously submitted a C-108 for administrative approval in October 2023. Raz reviewed the C-108 in preparation for submitting this application and made one revision to the ownership map—otherwise the C-108 as submitted in October 2023 required no changes and is still accurate.

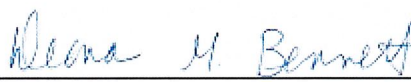
(6) Notice of the previously submitted administrative application was given as shown in the attached C-108. Counsel for Raz will provide notice of this hearing application as required by the Division's regulations.

(7) The granting of this application will prevent waste and will protect correlative rights.

WHEREFORE, Raz requests that this application be set for hearing before an Examiner of the Oil Conservation Division on January 9, 2025; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS  
& SISK, P.A.

By: 

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*Attorneys for Applicant*

**CASE NO. \_\_\_\_\_: Application of Raz Oil and Gas L.L.C. for approval of a salt water disposal well in Lea County, New Mexico.** Applicant seeks an order authorizing applicant to plug back the YO State SWD #1 well to the Delaware Mountain Group and authorizing applicant to inject produced water into the Delaware Mountain Group at a depth of approximate 5,540 feet to 6,930 feet. Applicant currently operates the YO State SWD #1 (API 30-025-38162), at a surface location 660' from the North line and 840' from the West line, Lot D, Section 15, Township 21 South, Range 35 East, NMPM, Lea County, New Mexico. Applicant further requests that the Division approve a maximum daily injection rate for the well of 20,000 bbls per day. Said area is located approximately 12.24 miles northwest of Eunice, New Mexico.

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

<b>Applicant:</b> <u>Raz Oil and Gas L.L.C.</u>	<b>OGRID Number:</b> <u>370507</u>
<b>Well Name:</b> <u>YO State SWD #001</u>	<b>API:</b> <u>30-025-38162</u>
<b>Pool:</b> <u>SWD; DELAWARE</u>	<b>Pool Code:</b> <u>96100</u>

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]  
 A. Location – Spacing Unit – Simultaneous Dedication  
 NSL       NSP (PROJECT AREA)       NSP (PRORATION UNIT)       SD

- B. Check one only for [ I ] or [ II ]  
 [ I ] Commingling – Storage – Measurement  
 DHC     CTB     PLC     PC     OLS     OLM  
 [ II ] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery  
 WFX     PMX     SWD     IPI     EOR     PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.  
 A.  Offset operators or lease holders  
 B.  Royalty, overriding royalty owners, revenue owners  
 C.  Application requires published notice  
 D.  Notification and/or concurrent approval by SLO  
 E.  Notification and/or concurrent approval by BLM  
 F.  Surface owner  
 G.  For all of the above, proof of notification or publication is attached, and/or,  
 H.  No notice required

<b>FOR OCD ONLY</b>
<input type="checkbox"/> Notice Complete
<input type="checkbox"/> Application Content Complete

- 3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Joshua Ticknor  
 Print or Type Name

12/10/2024  
 Date

Josh Ticknor  
 Signature

(580) 916-2126  
 Phone Number

jticknor@all-llc.com  
 e-mail Address



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL  
RESOURCES DEPARTMENT

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

FORM C-108  
Revised June 10, 2003

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance   X   Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval?   X   Yes \_\_\_\_\_ No

II. OPERATOR: Raz Oil and Gas L.L.C.

ADDRESS: P.O. Box 1180, Eunice, NM 88321

CONTACT PARTY: Joshua Ticknor PHONE: (580) 916-2126

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes   X   No  
If yes, give the Division order number authorizing the project: Injection authorized under Order SWD-1594

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

\*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

\*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

\*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Joshua Ticknor TITLE: Consultant / Project Manager

SIGNATURE: Josh Ticknor DATE: 12/10/2024

E-MAIL ADDRESS: jticknor@all-llc.com

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

DISTRIBUTION: File Electronically Via OCD Permitting

Side 2

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

**Application for Authorization to Inject**

**Well Name:** YO State SWD #1

**API:** 30-025-38162

**III – Well Data** (The Wellbore Diagram is included as **Attachment 1**)

**A.**

**(1) General Well Information:**

Operator: Raz Oil and Gas L.L.C. (OGRID No. 370507)

Lease Name & Well Number: YO State SWD #1

Location Footage Calls: 660 FNL & 840 FWL

Legal Location: Lot D, S15 T21S R35E

Ground Elevation: 3,587'

Proposed Injection Interval: 5,540' – 6,930'

County: Lea

**(2) Casing Information:**

Type	Hole Size	Casing Size	Casing Weight	Setting Depth	Sacks of Cement	Estimated TOC	Method Determined
Surface Casing	17-1/2"	13-3/8"	48 lb/ft	850'	750	Surface	Circulation
Intermediate Casing	12-1/2"	9-5/8"	40 lb/ft	5,420'	1,900	Surface	Circulation
Production Casing	8-3/4"	7"	26 lb/ft	12,536'	1,605	Surface	CBL
Liner	6-1/8"	5"	15 lb/ft	12,273' – 13,962'	105	12,662'	CBL

DV Tools set on 7" casing at: 4,166', 5,335', and 9,797'

**(3) Tubing Information:**

4.5" (11.6 lb/ft) ICP L80 or N80 injection tubing with setting depth of 5,520'.

**(4) Packer Information:** Baker Hughes Hornet or equivalent packer set at 5,520'.

**B.**

**(1) Injection Formation Name:** Delaware

**Pool Name:** SWD; Delaware

**Pool Code:** 96100

**(2) Injection Interval:** Perforated injection between 5,540' – 6,930'

**(3) Drilling Purpose:** Plug back for saltwater disposal in Delaware Mountain Group.

**(4) Other Perforated Intervals:** Perforations from 13,518' – 13,718' and open hole from 13,962' – 14,347' are currently being utilized to inject into the Devonian Formation. These Perforations will be properly plugged and abandoned during the plug back of the YO State SWD #1 into a Delaware Mountain Group injection well.

**(5) Overlying Oil and Gas Zones:** Below are the approximate formation tops for known oil and gas producing zones in the area.

- Yates (3,680')

**Underlying Oil and Gas Zones:** Below are the approximate formation tops for known oil and gas producing zones in the area.

- Bone Spring (7,578')
- Wolfcamp (10,156')
- Morrow (11,669')

**Application for Authorization to Inject****Well Name:** YO State SWD #1**API:** 30-025-38162**V – Well and Lease Maps**

The following maps and documents are included in **Attachment 2**:

- 2-mile Oil & Gas Well Map
- 1/2-Mile Well Detail List
- Penetrating Wellbore Diagram (Plugged Wells)
- 2-Mile Lease Map
- 2-Mile Mineral Ownership Map
- 2-Mile Surface Ownership Map
- Potash Lease Map

**VI – AOR Well List**

A list of the wells within the 1/2-mile AOR is included in **Attachment 2**.

There is one (1) well within the 1/2-mile AOR which penetrates the injection zone. This well has been properly cased, cemented, and plugged to isolate the injection zone. A wellbore diagram, casing information, and plugging details for this well is also included in **Attachment 2**.

**VII – Proposed Operation**

- (1) **Proposed Maximum Injection Rate:** 20,000 bpd  
**Proposed Average Injection Rate:** 13,000 bpd
- (2) A **closed-loop system** will be used.
- (3) **Proposed Maximum Injection Pressure:** 1,108 psi (surface)  
**Proposed Average Injection Pressure:** approximately 720 psi (surface)
- (4) **Source Water Analysis:** It is expected that the injectate will consist of produced water from production wells completed in the Yates, Bone Spring, and Morrow formations. Analysis of water from these formations is included as **Attachment 3**.
- (5) **Injection Formation Water Analysis:** The proposed SWD will be injecting water into the Delaware Mountain Group which is a non-productive zone known to be compatible with formation water from the Yates, Bone Spring, and Morrow formations. Water analyses from the Delaware formation in the area are included as **Attachment 4**.

**VIII – Geologic Description**

The proposed injection interval includes the Delaware Mountain Group from 5,540 to 6,930 feet. This formation consists of fine-grained Permian age sandstones with interbedded siltstones. Several thick intervals of porous and permeable sandstones capable of taking water are present within the Delaware Mountain Group in the area.

The base of the USDW is at a depth of approximately 850 feet. Water well depth in the area is approximately 150 feet below the ground surface.



## **Application for Authorization to Inject**

**Well Name:** YO State SWD #1

**API:** 30-025-38162

### **IX – Proposed Stimulation Program**

A small cleanup acid job may be used to treat the new perforations in the Delaware Mountain Group. However, no other formation stimulation is currently planned.

### **X – Logging and Test Data**

Logs will be submitted to the Division upon completion of the well.

### **XI – Fresh Groundwater Samples**

Based on a review of data from the New Mexico Office of the State Engineer, one (1) water well is located within 1-mile of the proposed SWD location. This water well was sampled on June 7, 2015.

A water well map, details of the water well within 1-mile, and the associated water analyses are included in **Attachment 5**.

### **XII – No Hydrologic Connection Statement**

No faulting is present in the area that would provide a hydrologic connection between the injection interval and overlying USDWs. Additionally, the casing program has been designed to ensure there will be no hydrologic connection between the injection interval and overlying USDWs.

A signed No Hydrologic Connection Statement is included as **Attachment 6**.

### **XIII – Proof of Notice**

A Public Notice was filed with the Hobbs News-Sun newspaper and an affidavit is included in **Attachment 7**.

A copy of the application was mailed to the OCD district office, landowner, and all identified affected parties within 1/2-mile of the proposed SWD location. A list of the recipients, as well as delivery confirmations, are included in **Attachment 7**.

# Attachments

**Attachment 1:**

- C-102
- As-Built Wellbore Diagram
- Proposed Recompletion Wellbore Diagram
- Packer Diagram

**Attachment 2:** Area of Review Information:

- 2-Mile Oil & Gas Well Map
- 1/2-Mile Well Detail List
- Penetrating Wellbore Diagram (Plugged Wells)
- 2-Mile Lease Map
- 2-Mile Mineral Ownership Map
- 2-Mile Surface Ownership Map
- Potash Lease Map

**Attachment 3:** Source Water Analyses

**Attachment 4:** Injection Formation Water Analyses

**Attachment 5:** Water Well Map and Well Data

- Water Well Map
- Well Data

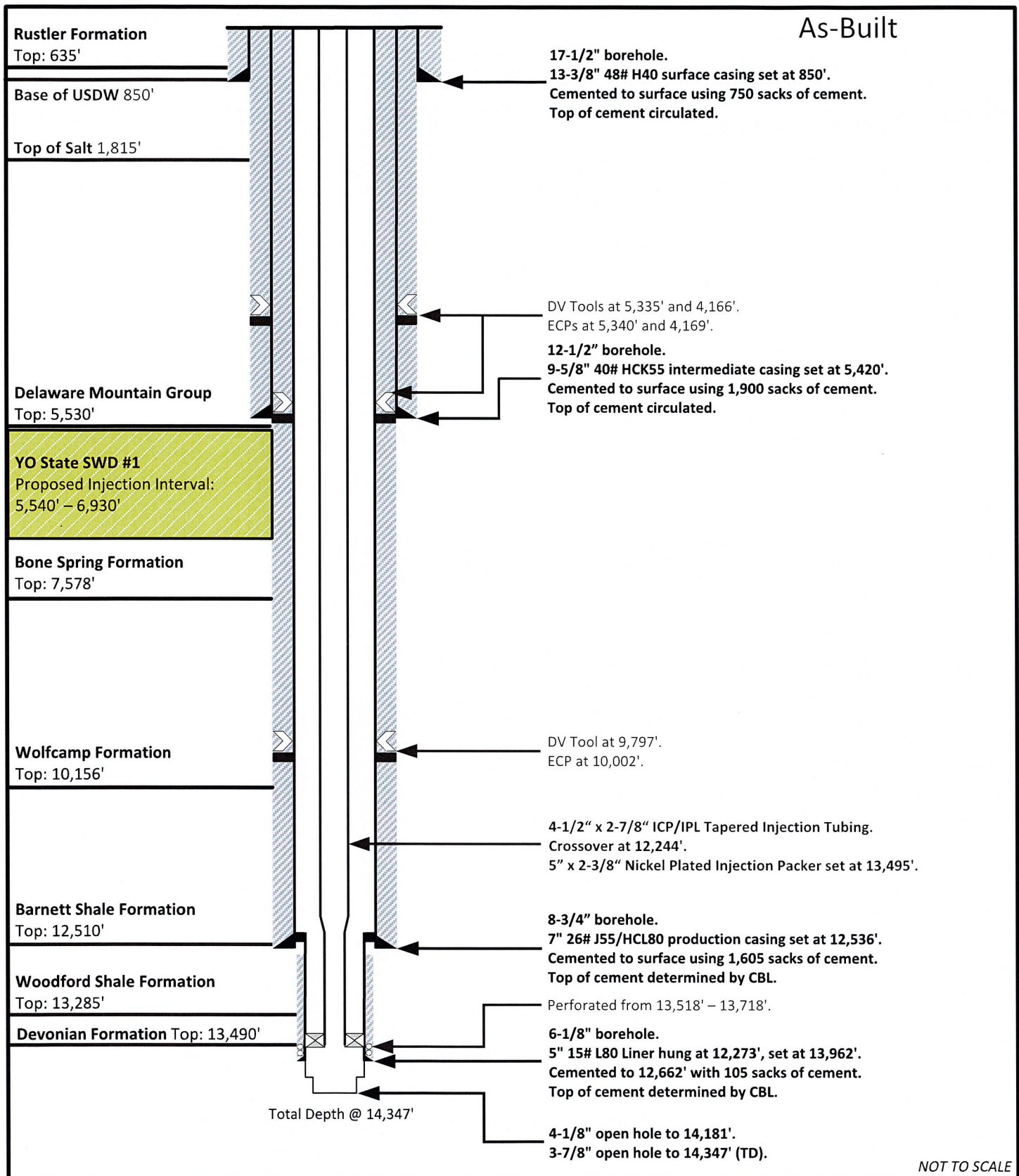
**Attachment 6:** No Hydrologic Connection Statement

**Attachment 7:** Public Notice Affidavit and Notice of Application Confirmations

**Attachment 1**

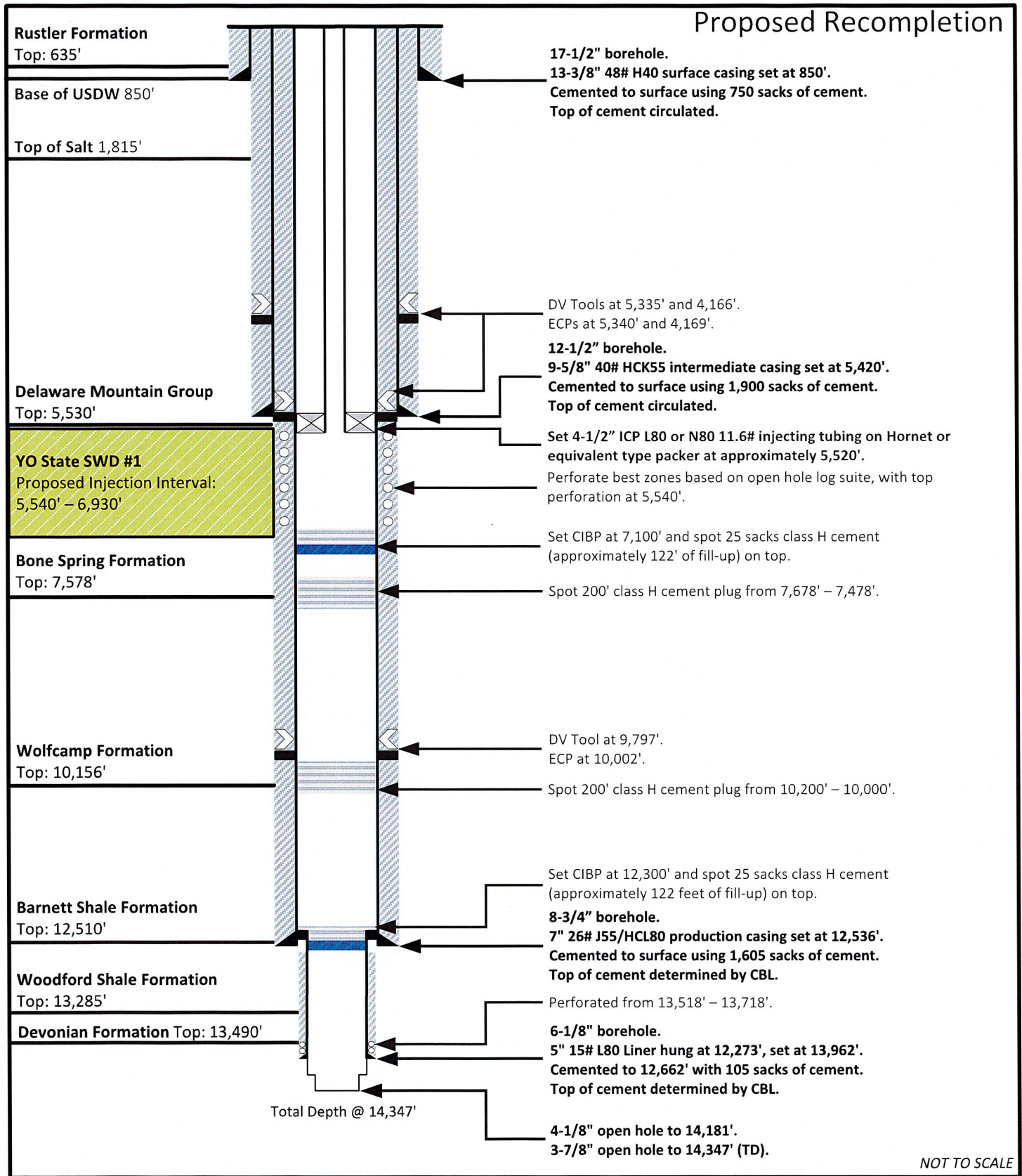
- C-102
- As-Built Wellbore Diagram
- Proposed Recompletion Wellbore Diagram
- Packer Diagram





NOT TO SCALE

<p>Prepared by:</p> <p><b>ALLCONSULTING</b></p> <p>Prepared for:</p> <p><b>Raz Oil and Gas L.L.C.</b></p>	<p>Drawn by: Reed Davis</p>	<p><b>YO State SWD #1</b> <b>Raz Oil and Gas L.L.C.</b> <b>API#: 30-025-38162</b> <b>Sec. 15 Town. 22S Rng. 35E</b> <b>Lat: 32.4844551° Long: -103.36129° (NAD 83)</b></p>
	<p>Project Manager: Joshua Ticknor</p>	
	<p>Date: 10/17/2023</p>	



NOT TO SCALE

Prepared by: <b>ALLCONSULTING</b> Prepared for: <b>Raz Oil and Gas L.L.C.</b>	Drawn by: Reed Davis	<b>YO State SWD #1</b> <b>Raz Oil and Gas L.L.C.</b> <b>API#: 30-025-38162</b> <b>Sec. 15 Town. 22S Rng. 35E</b> <b>Lat: 32.4844551° Long: -103.36129° (NAD 83)</b>
	Project Manager: Joshua Ticknor	
	Date: 10/17/2023	

## HORNET Packer

Product Family No. H64682

## HORNET EL Packer

Product Family No. H64683

### APPLICATION

The mechanically set HORNET™ packer offers ease of operation with quarter-turn right to set and release. Converting it for wireline-setting applications is simple and inexpensive. The HORNET packer provides for landing in compression, tension, or neutral positions. Every component from the jay track, to the internal bypass, to the packing-element system and the upper slip assembly has been developed to ensure the HORNET's setting and releasing reliability.

The HORNET EL packer is run and set on electric line using an E-4™ (Product Family No. H43702) with a slow-set power charge or a J™ setting tool (Product Family No. H41371) and a special wireline adapter kit. An L-10™ type on/off seal nipple is run on top of the packer to connect the tubing to the packer and to house a blanking plug when the packer is used as a temporary bridge plug.

### Advantages

#### Upper Slip Assembly:

- Thoroughly tested across API minimum to maximum casing ID tolerances for each specified casing weight, for setting and releasing reliability
- Slip-wicker configuration providing bidirectional-load support with solid upper cone to support highest tensile loads
- Staged-release action eliminates high-overpull requirement
- Minimal set-down weight required to anchor slips

#### Internal Bypass Seal:

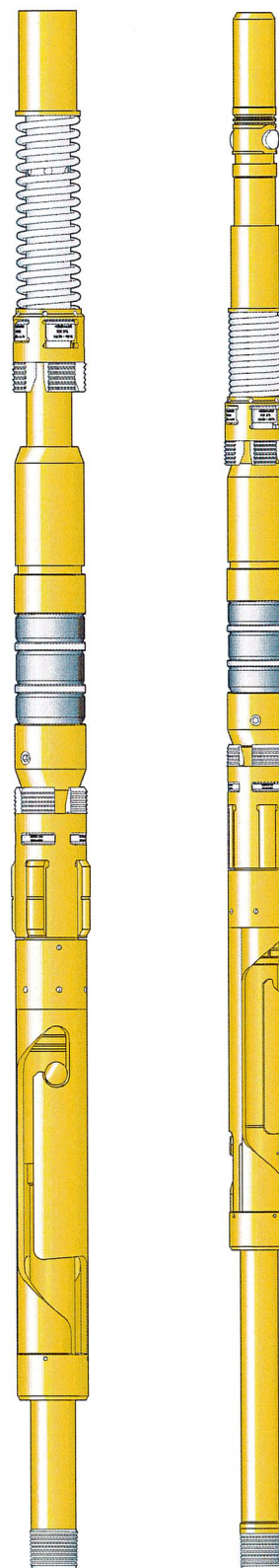
- Durable bypass seal design provides sealing after unloading, under differential pressures
- No O-ring sealing system

#### Packing Element System:

- Fully tested to combined ratings at the API's maximum ID tolerance
- Patented enhancements to control overboost
- High-performance, three-piece element system

#### Lower Slip and Jay Assembly:

- Slips and drag blocks tested to maximum API tolerance ID for positive set and ease of release
- One-quarter-turn right setting and releasing action
- Packoff of packing elements with applied tension or compression
- Spacing in jay ensures opening of internal bypass, before slip releasing action begins—important to both ease of release and safety
- Automatically returns to running position



HORNET Packer  
Product Family  
No. H64682

HORNET EL Packer  
Product Family  
No. H64683

## **Attachment 2**

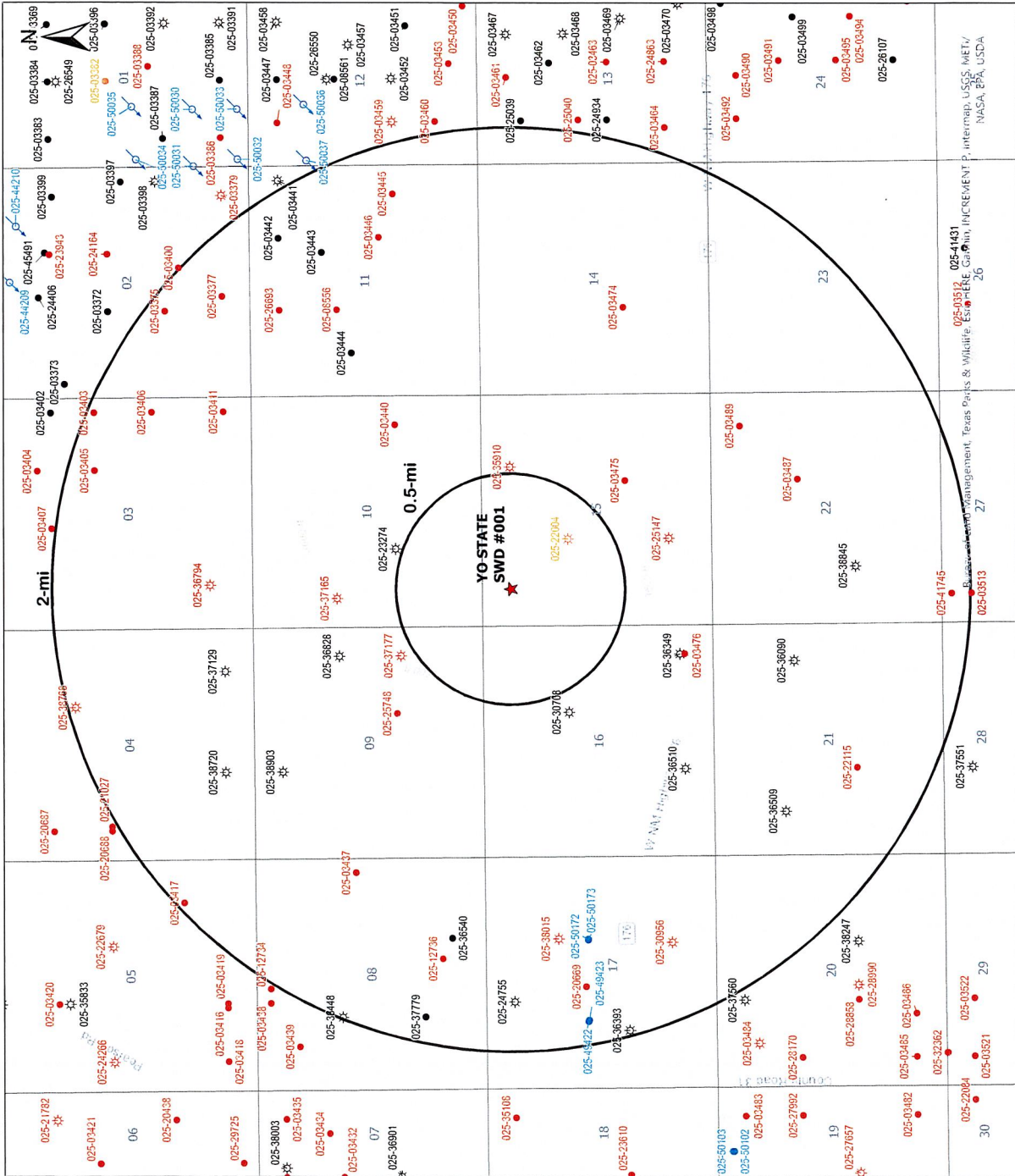
### Area of Review Information:

- 2-mile Oil & Gas Well Map
- 1/2-Mile Well Detail List
- Penetrating Wellbore Diagram (Plugged Wells)
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership Map
- Potash Lease Map



**Legend**

- ★ YO STATE SWD #1 (1)
- ☆ Gas, Active (34)
- ☆ Gas, Plugged (16)
- ☆ Gas, Temporary Abandonment (1)
- ⚙ Injection, New (10)
- Oil, Active (28)
- Oil, New (6)
- Oil, Plugged (79)
- Oil, Temporary Abandonment (1)



Source Info: NMOCD O&G Wells updated 9/7/2023  
(https://oocd-hub-nm-emmd-hub.arcgis.com/search)

# O&G Wells AOR Map

## YO STATE SWD #001

Lea County, New Mexico

Proj Mgr: Joshua Ticknor  
Mapped by: Ben Bockelmann  
Prepared for: **RAZ OIL & GAS**



AOR Tabulation for Yo State SWD #001 (Top of Injection Interval: 5,540' - 6,930')						
Well Name	API#	Well Type	Operator	Spud Date	Location (Sec., Tr., Rng.)	Penetrate Inj. Zone?
STATE WE K #001	30-025-22004	Plugged	Raz Oil and Gas LLC	1/10/1967	F-15-21S-35E	Yes
Total Vertical Depth (feet) 12,610 (plugged)						

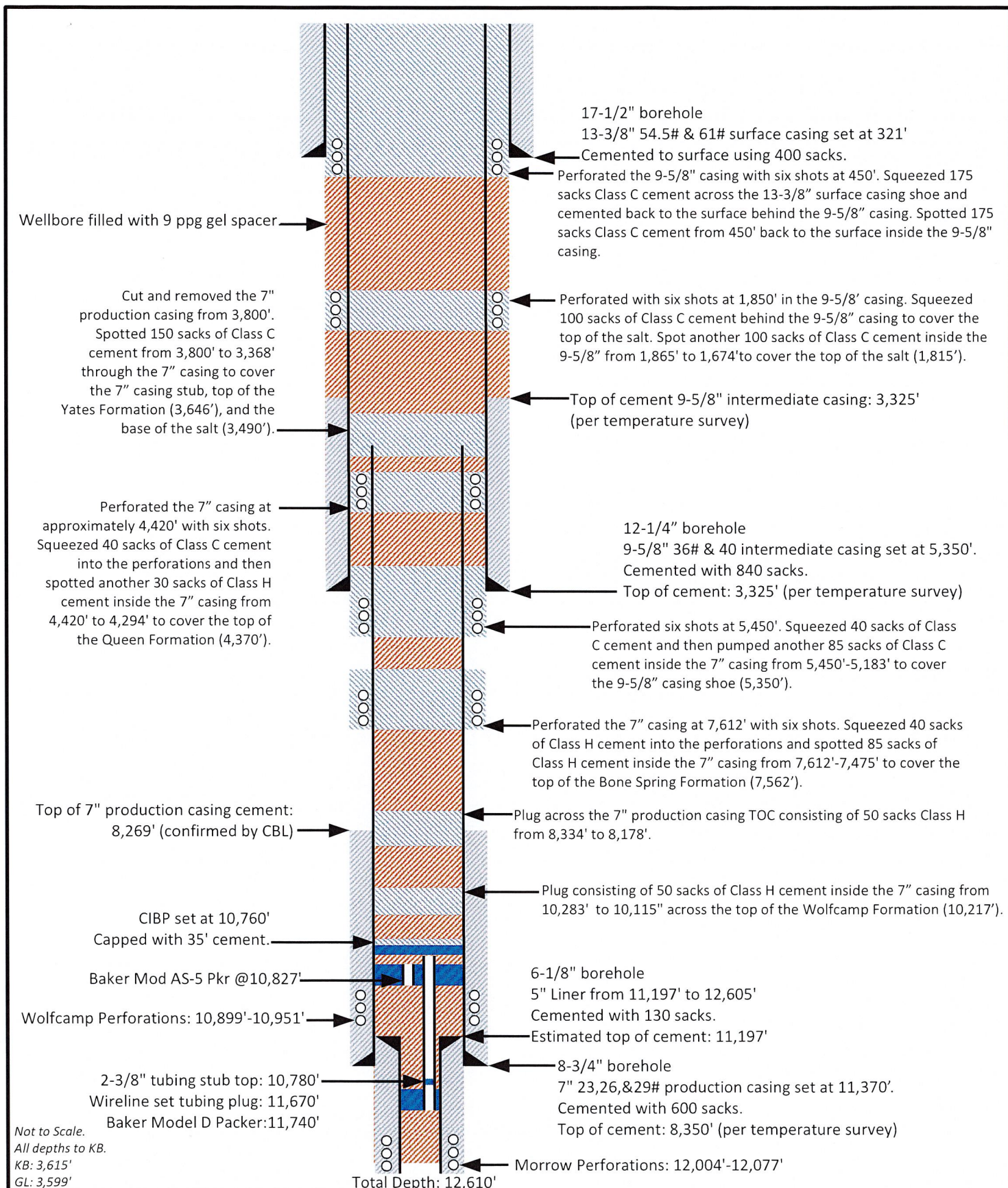
  

Casing / Plugging Information for Wells Penetrating the Yo State SWD #001 Injection Zone				
Well Name	Type	Set Depth	Casing Size	Hole Size
STATE WE K #001	Surface	321'	13.375"	17.5"
	Intermediate	5,350'	9.625"	12.25"
	Production	4,420' - 11,370'	7"	8.75"
	Liner	11,197' - 12,605'	5"	6.125"

TOC Method Determined

Well Name	TOC	Skts of Cement
STATE WE K #001	Surface	400
	3,325'	840
	8,350'	600
	11,197'	130


Plugging Details: Tubing plug @11,670'. CIBP @10,760' capped with 35' cement. Plugs @10,283' - 10,115' with 50 sx, @8,334' - 8,178' with 50 sx. Perf and squeeze @7,612' to 7,475' with 40 sx and spotted 85 sx inside 7" casing from 7,612' - 7,475'; @5,450' - 5,183' with 40 sx and spotted 80 sx from 5,450' - 5,183'; @4,420' - 4,294' w/ 70 sx. 7" casing cut and pulled @3,800', spotted 150 sx from 3,800' to 3,368'. Perf and squeeze @1,850' - 1,674' with 100 sx and spotted 100 sx from 1,865' - 1,674'; @450' - surface with 175 sx and spotted 175 sx from 450' - surface.

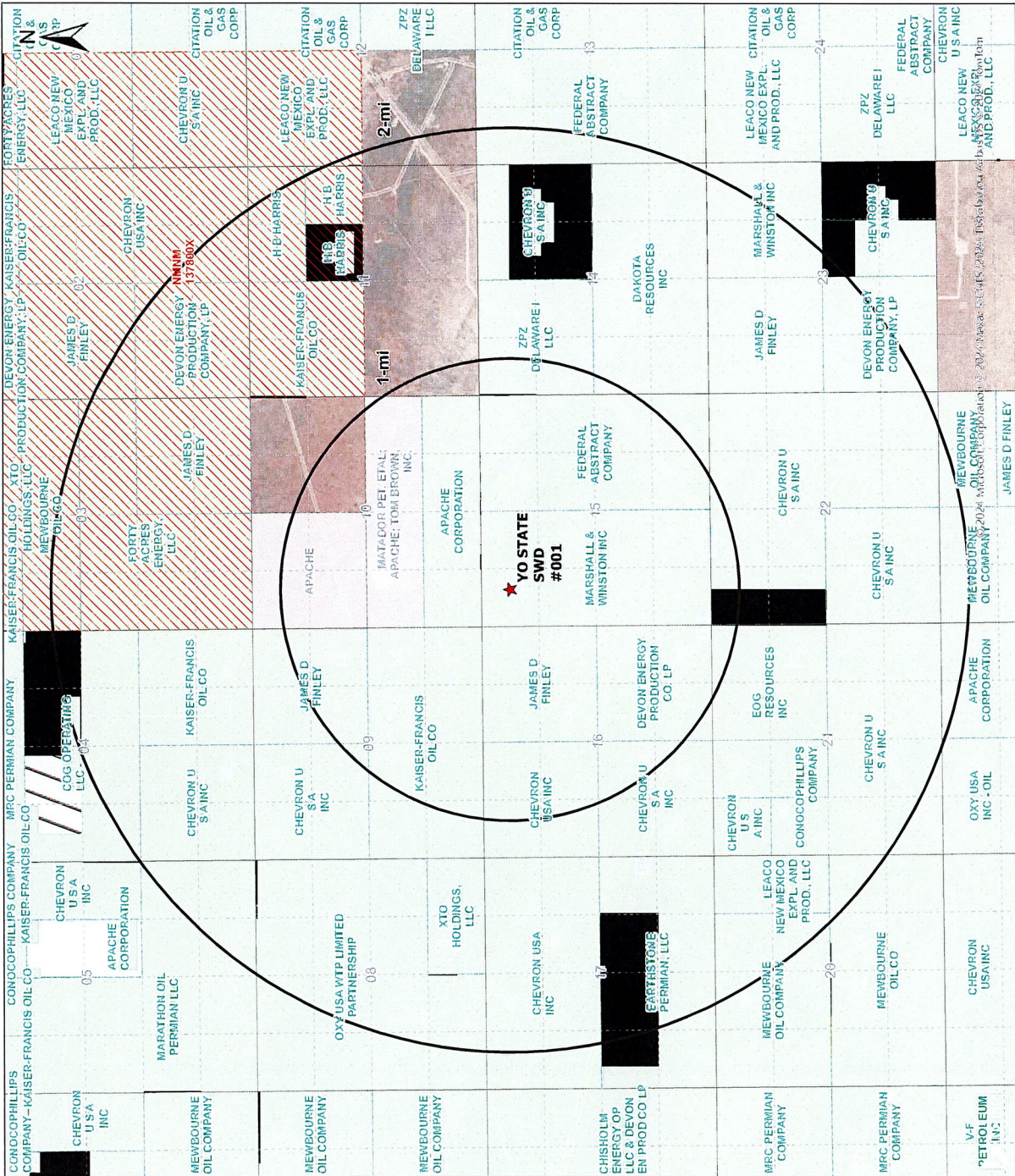


Not to Scale.  
 All depths to KB.  
 KB: 3,615'  
 GL: 3,599'


Prepared by: 	Drawn by: Joshua Ticknor	Subsequent Report of P&A Wellbore Diagram Raz Oil and Gas, LLC State WE "K" #1 API # 30-025-22004 1980' FNL x 1980' FWL, UL 'F' Sec 15, T21S, R35E, Lea County, NM
	Project Manager: Joshua Ticknor	
	Date: 09/07/2023	

**Legend**

- ★ YO STATE SWD #1
-  BLM Communitization Units
-  NMSLO Mineral Leases
-  Private Mineral Leases

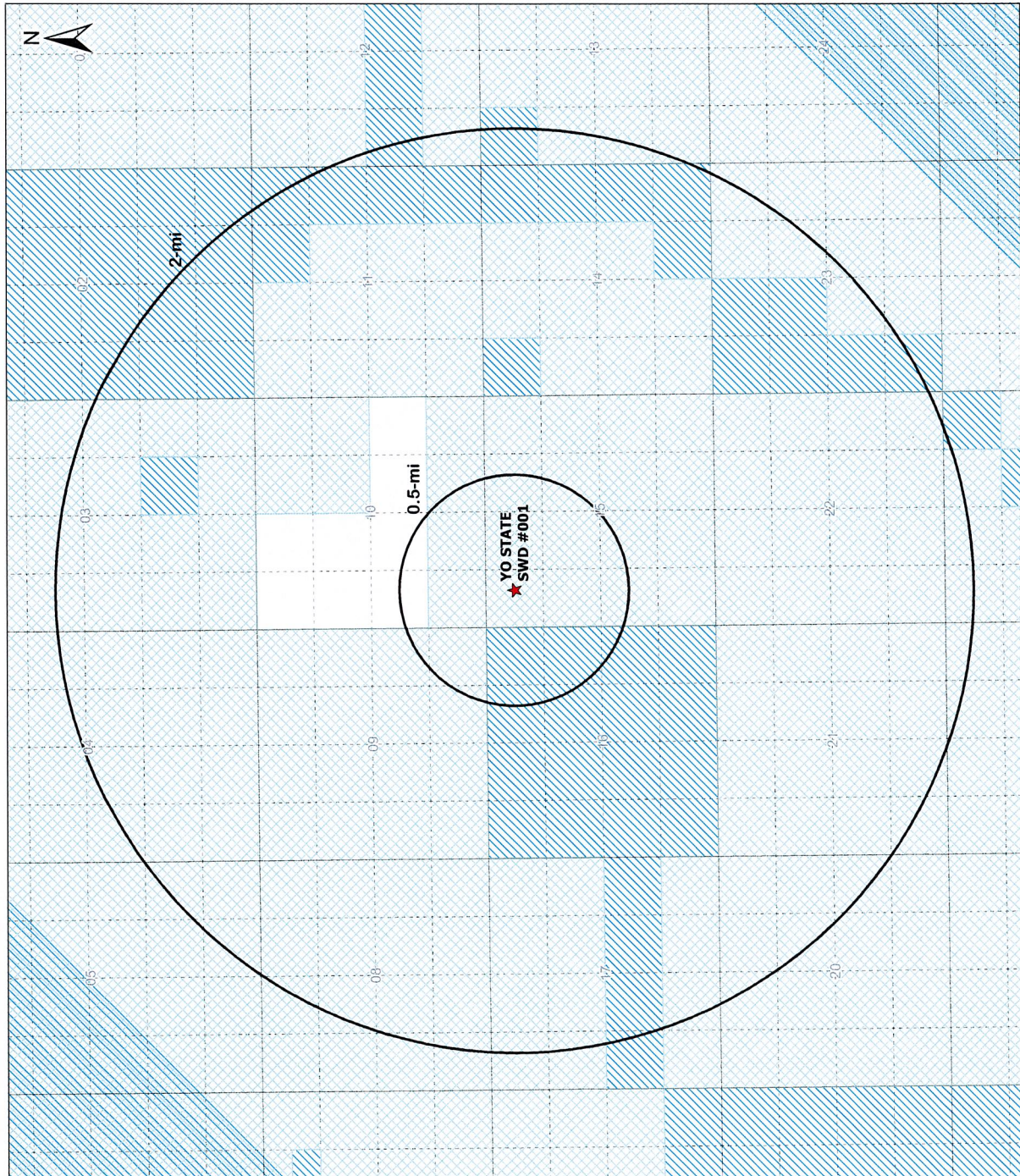


Source Info: BLM Mineral Leases (<https://catalog.data.gov/dataset/blm-new-mexico-mineral-ownership>), NMSLO Mineral Leases (<http://www.nmslolands.org/maps-gis/gis-data-download/>). Where applicable, Private Mineral Leases were identified utilizing Enverus, Midland Maps, or operator identified lease data.

<b>Mineral Lease AOR</b>	
<b>YO STATE SWD #001</b> Lea County, New Mexico	
Proj Mgr: Reed Davis	Mapped by: Ben Bockelmann
Prepared for: <b>RAZ OIL &amp; GAS</b>	Prepared by: 

**Legend**

- ★ YO STATE SWD #1
- Private minerals
- Subsurface minerals (NMSLO)
- Surface and Subsurface minerals (NMSLO)



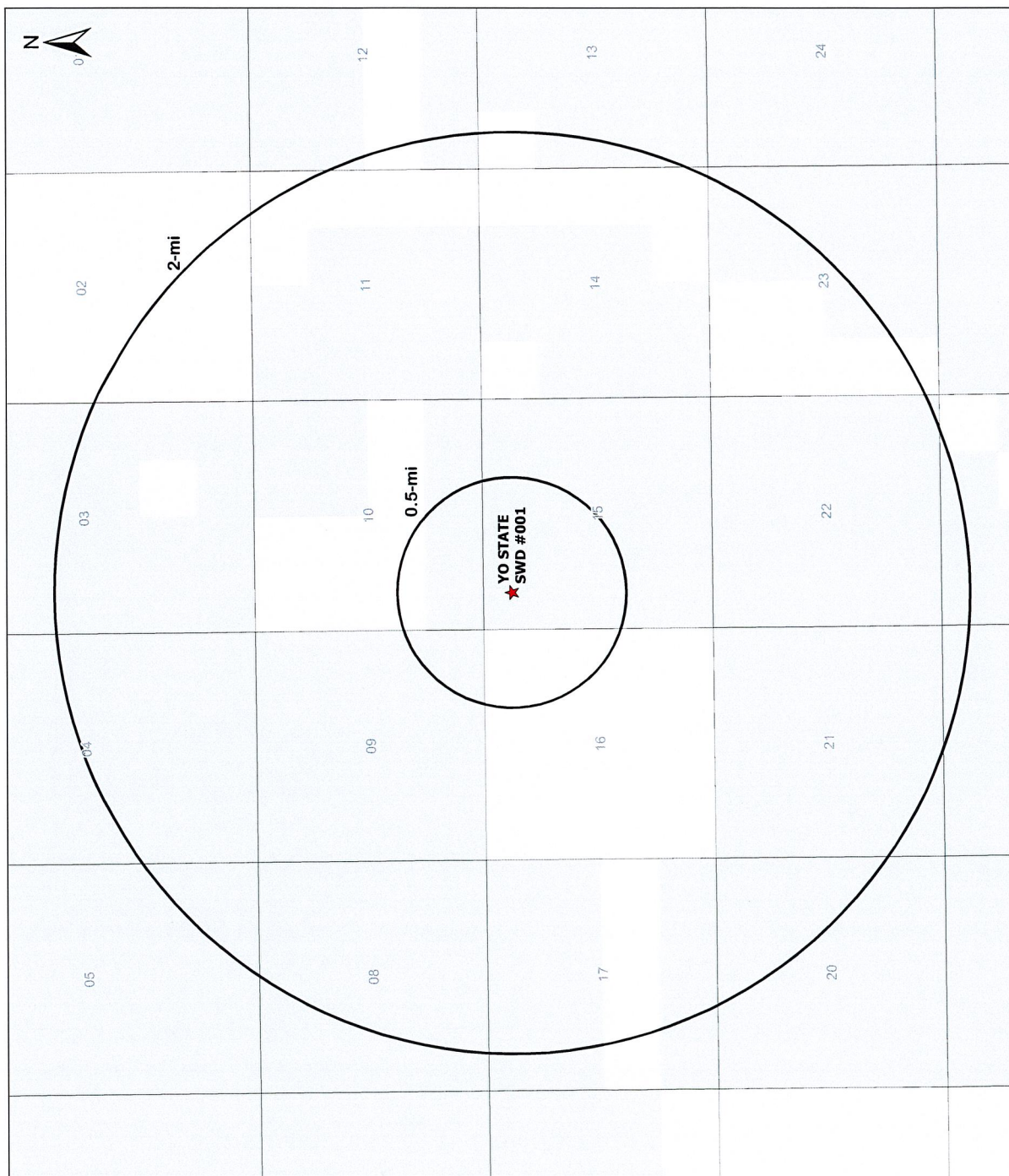
<b>Mineral Ownership AOR</b>	
<b>YO STATE SWD #001</b> Lea County, New Mexico	
Proj Mgr: Joshua Ticknor	Mapped by: Ben Bockelmann
Prepared for: <b>RAZ OIL &amp; GAS</b>	Prepared by: <b>ALL CONSULTING</b>
September 28, 2023	

**Legend**

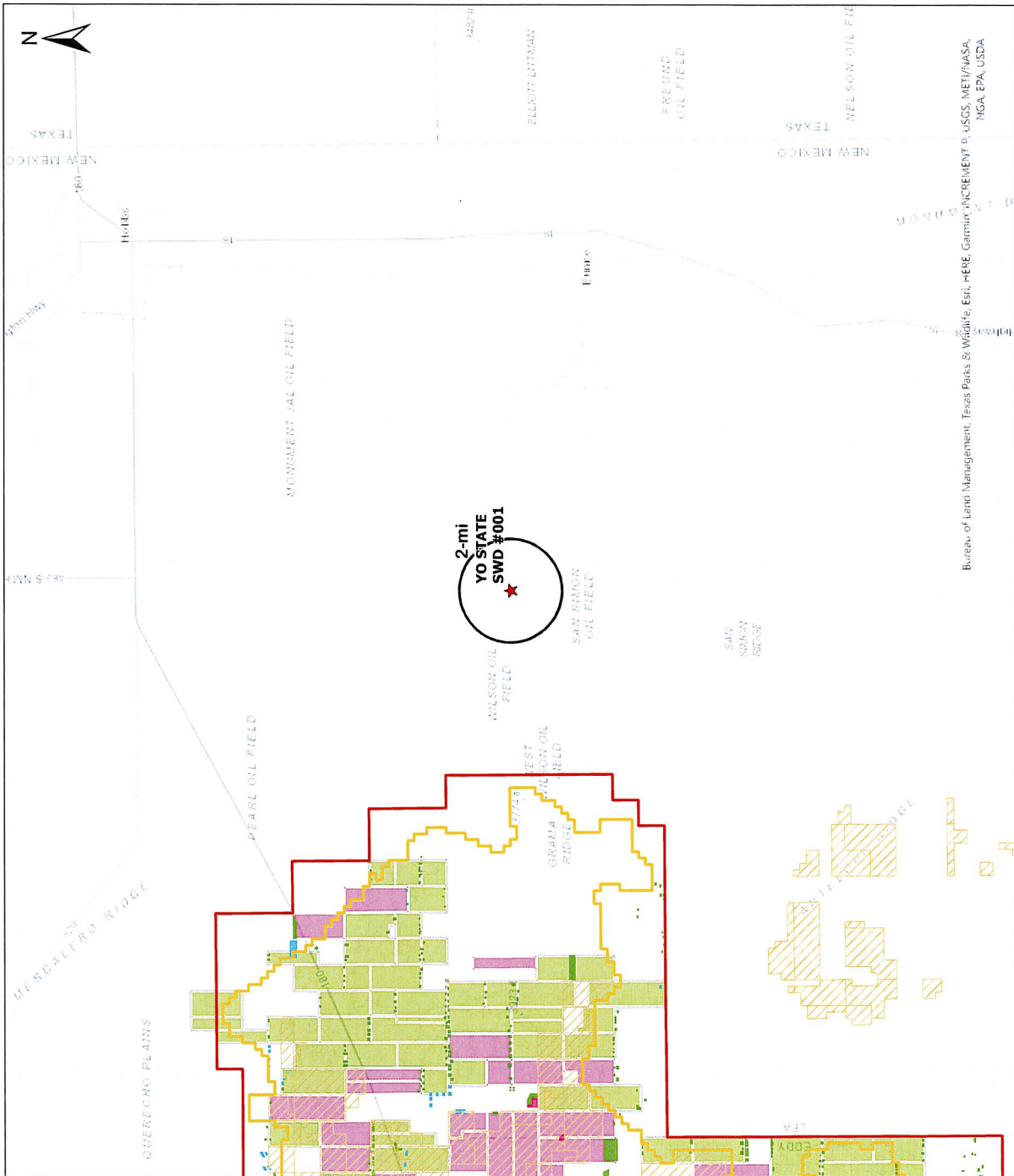
- ★ YO STATE SWD #1 (1)

**Surface Ownership**

- Private (9)
- State (2)



<b>Surface Ownership AOR</b>	
<b>YO STATE SWD #001</b> Lea County, New Mexico	
Proj Mgr: Joshua Ticknor	Mapped by: Ben Bockelmann
September 28, 2023	
Prepared for: <b>RAZ OIL &amp; GAS</b>	
Prepared by: <b>ALLI CONSULTING</b>	



<b>Potash AOR</b>	
<b>YO STATE SWD #001</b> Lea County, New Mexico	
Proj Mgr: Joshua Ticknor	Mapped by: Ben Bockelmann
September 28, 2023	
Prepared for: <b>RAZ OIL &amp; GAS</b>	
Prepared by: <b>ALL CONSULTING</b>	

**Attachment 3**

Source Water Analysis



Source Water Analysis

Raz Oil and Gas LLC - YO State SWD #001

Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Fgns	Fgwg	County	State	Field	Formation	TDS (mg/L)	Chloride (mg/L)	Bicarbonate (mg/L)	Sulfate (mg/L)
APPLESHED FEDERAL COM #001	3002520377	32.5750088	-103.4730377	17	20S	35E	11	1980N	660E	LFA	NM	LYNCH	BONE SPRING	173.141	93.660	5,174	7,916
HUNT APO STATE #001	3002527135	32.5070038	-103.4812317	4	21S	34E	T	2310S	660W	LFA	NM	GRAMA RIDGE NORTH	BONE SPRING	294.627	216.575	74	403
BERRY APO STATE #001	3002527250	32.5060349	-103.4983444	5	21S	34E	L	1980S	660W	LFA	NM	HERRY NORTH	BONE SPRING	192.871	132.048	163	445
HUNT APO STATE #001	3002527135	32.5070038	-103.4812317	4	21S	34E	T	2310S	660W	LFA	NM	GRAMA RIDGE NORTH	BONE SPRING	294.627	216.575	74	403
MONK 21 STATE COM #001H	3002540986	32.4706993	-103.4818954	21	21S	34E	D	330N	460W	Lea	NM		BONE SPRING 2ND SAND	261.089	160.264	122	425
MONK 21 STATE #004H	3002542193	32.4710767	-103.4727296	21	21S	34E	B	200N	1980E	Lea	NM		BONE SPRING 2ND SAND	184.233	112.775	488	425
GAUCHO UNIT #007H	3002514440	32.3890961	-103.4941711	17	22S	34E	K	1650S	1980W	Lea	NM		BONE SPRING 2ND SAND	166.698	101.677	61	675
GAUCHO UNIT #015H	3002541566	32.3841896	-103.4984589	20	22S	34E	D	100N	660W	Lea	NM		BONE SPRING 2ND SAND	158.147	96.378	232	710
GAUCHO UNIT #011H	3002541184	32.385006	-103.4891129	17	22S	34E	O	200S	1730E	Lea	NM		BONE SPRING 3RD SAND	156.141	97.978	305	1,005
GAUCHO UNIT #010H	3002541183	32.385006	-103.4892731	17	22S	34E	O	200S	1780E	Lea	NM		BONE SPRING 3RD SAND	165.155	100.777	220	560
GAUCHO UNIT #010H	3002541183	32.385006	-103.4892731	17	22S	34E	O	200S	1780E	Lea	NM		BONE SPRING 3RD SAND	165.155	100.777	220	560
WILSON DEEP UNIT #001	300250461	32.4805832	-103.4253387	13	21S	34E	F	2080N	2080W	LFA	NM	WILSON	MORROW	11.648	566	2,161	5,252
BUNICE MONUMENT SOUTH UNIT #102	3002504326	32.5495567	-103.3014832	25	20S	36E	A	660N	660E	Lea	NM		YALUS	247.872	1,091	30,984	30,984

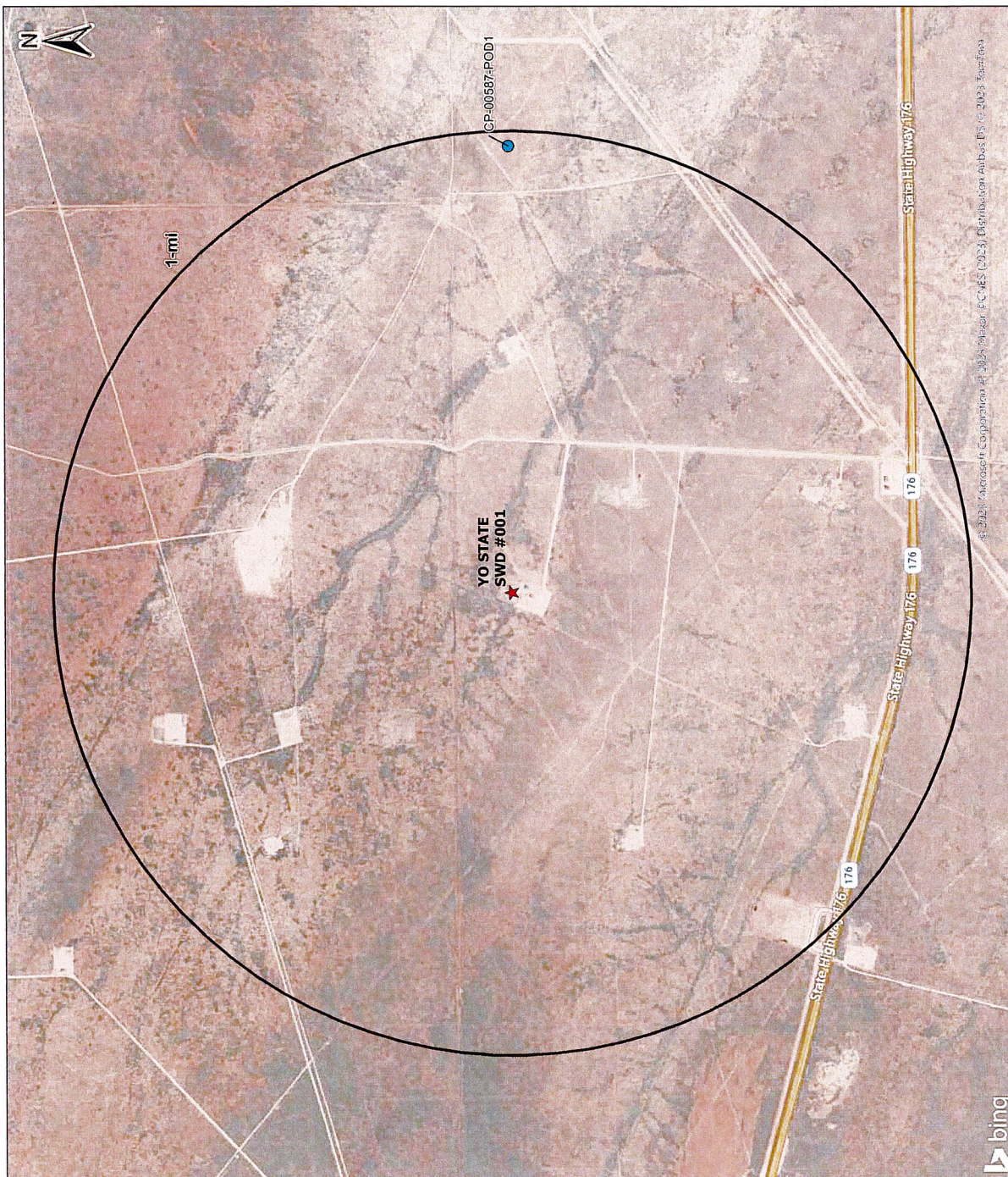
**Attachment 4**

Injection Formation Water Analysis

Injection Formation Water Analysis																	
Raz Oil and Gas LLC - YO State SWD #001 - Delaware Mountain Group																	
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Fig#	Ft#	County	State	Field	Formation	TDS (mg/L)	Chloride (mg/L)	Bicarbonate (mg/L)	Sulfate (mg/L)
MOBIL LEA STATE #001	3002531696	32.5999107	-103.5331573	2	20S	34E	K	1800S	1980W	LEA	NM	LEA NORTH/EAST	DELAWARE	152,064	102,148	404	691
MOBIL LEA STATE #003	3002532105	32.5976906	-103.5367584	2	20S	34E	M	9900S	870W	LEA	NM	LEA NORTH/EAST	DELAWARE	296,822	215,237	143	294
MOBIL LEA STATE #005	3002532466	32.6028633	-103.5367584	2	20S	34E	E	2440N	870W	LEA	NM	LEA NORTH/EAST	DELAWARE	340,838	245,270	229	147
LEA UNIT #001	3002502427	32.5858536	-103.5202356	12	20S	34E	L	1980S	660W	LEA	NM	LEA	DELAWARE	214,787	132,700	208	1,816
GAUCHO 21 FEDERAL #00211	3002540626	32.3709793	-103.4823151	21	22S	34E	M	375S	375W	Lea	NM		DELAWARE-BRUSHY CANYON	266,468	167,562	366	

**Attachment 5**

- Water Well Map
- Well Data



**Legend**

★ YO STATE SWD #1 (1)

**OSE PODs**

**Status**

● Active (1)

● Pending (0)

● Change Location of Well (0)

● Capped (0)

● Plugged (0)

● Incomplete (0)

○ Unknown (0)

Source Info: NMOSE PODs updated 9/21/2023  
(<https://geospatialdata-ose.opendata.arcgis.com/search?collection=Dataset>)

<b>Water Wells AOR Map</b>	
<b>YO STATE SWD #001</b> Lea County, New Mexico	
Proj Mgr: Joshua Ticknor	Mapped by: Ben Bockelmann
September 27, 2023	
Prepared for: <b>RAZ OIL &amp; GAS</b>	Prepared by: <b>ALLI CONSULTING</b>

Water Well Sampling Rationale					
Raz Oil and Gas LLC - YO State SWD #001					
Water Wells	Owner	Available Contact Information	Use	Sampling Required	Notes
CP-00587-POD1	The Merchant Livestock Company	P.O. Box 1105 Eunice, NM 88231 spencer@merchantlivestock.com	Livestock Watering	Yes	CP-00587-POD1 was sampled on June 7, 2015.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

RAZ OIL & GAS  
 BEN THOMPSON  
 P. O. BOX 1180  
 EUNICE NM, 88231  
 Fax To: NONE GIVEN

Received: 06/08/2015  
 Reported: 06/12/2015  
 Project Name: WATER WELL CP00587  
 Project Number: NONE GIVEN  
 Project Location: LEA COUNTY, NM

Sampling Date: 06/07/2015  
 Sampling Type: Water  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: WELL WATER (H501468-01)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	92.0	4.00	06/09/2015	ND	104	104	100	0.00	
TDS 160.1		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	860	5.00	06/11/2015	ND	552	105	527	1.35	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Attachment 6**

No Hydrologic Connection Statement





**RE: Raz Oil and Gas LLC – YO State SWD #1 – Plug Back Saltwater Disposal  
Application, Lea County, New Mexico**

ALL Consulting LLC (ALL) has performed a thorough hydrologic investigation related to the proposed plug back of the YO State SWD #1 into the Delaware Mountain Group. The hydrologic investigation was conducted to determine if there were any existing or potential connections between the proposed injection intervals in the Delaware Mountain Group and the deepest underground source of drinking water (USDW).

ALL performed an assessment and analysis of the subsurface geophysical log data along with published documents on the groundwater in this vicinity of Eddy County, New Mexico. Based on ALL's assessment and analysis there is containment through multiple confining zones above the Delaware Mountain Group and the USDW and over 4,690 feet of vertical separation between the base of the USDW and the top of the injection interval. Additionally, there is no evidence of extensive faulting that would allow for communication between the USDW and the Delaware Mountain Group.

A handwritten signature in blue ink that reads "Tom Tomastik".

October 19, 2023

Tom Tomastik

Date

Chief Geologist and Regulatory Specialist

ALL Consulting LLC

**Attachment 7**

Public Notice Affidavit and Notice of Application Confirmations

**APPLICATION FOR AUTHORIZATION TO INJECT**

NOTICE IS HEREBY GIVEN: That Raz Oil and Gas L.L.C., P.O. Box 1180 Eunice, NM 88231, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORIZATION TO INJECT as follows:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: YO State SWD #1  
Located 12.24 miles northwest of Eunice, NM  
NW ¼ NW ¼, Section 15, Township 21S, Range 35E  
660' FNL & 840' FWL  
Lea County, NM

NAME AND DEPTH OF DISPOSAL ZONE: Delaware Mountain Group (5,540' – 6,930')  
EXPECTED MAXIMUM INJECTION RATE: 20,000 Bbls/day  
EXPECTED MAXIMUM INJECTION PRESSURE: 1,108 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objection or request for hearing should be mailed to the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505.

Additional information may be obtained by contacting Joshua Ticknor at (580)-916-2126.

# Affidavit of Publication

STATE OF NEW MEXICO  
COUNTY OF LEA

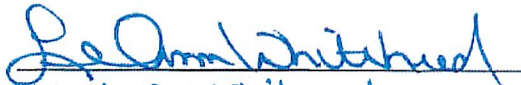
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated  
October 24, 2023  
and ending with the issue dated  
October 24, 2023.

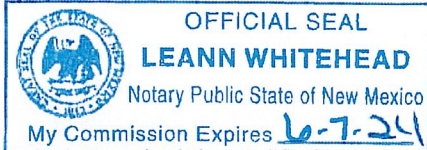


Publisher

Sworn and subscribed to before me this  
24th day of October 2023.

  
Notary LeAnn Whitehead

My commission expires  
June 07, 2024  
(Seal)



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said publication has been made.

**LEGAL NOTICE**  
October 24, 2023

APPLICATION FOR AUTHORIZATION TO INJECT

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Additional information may be obtained by contacting Oliver Seekins at 918-382-7581.  
#00284109

67115320

00284109

DANIEL ARTHUR  
ALL CONSULTING  
1718 S. CHEYENNE AVE.  
TULSA, OK 74119

Raz Oil and Gas L.L.C. - YO State SWD #1 - Affected Persons						
Affected Party Classification	Entity - Proof of Notice	Entity - As Mapped/Exhibited	Address	City	State	Zip Code
Mineral / Surface Owner	New Mexico State Land Office	NMSLO	310 Old Santa Fe Trail	Santa Fe	NM	87501
NMOC District Office	New Mexico Oil Conservation District 1	N/A	1625 N. French Drive	Hobbs	NM	88240
NMSLO Lessee	Federal Abstract Company	Federal Abstract Company	P.O. Box 4362	Houston	TX	77210-4362
NMSLO Lessee	Devon Energy Production Company Limited Partnership	Devon Energy Production Co. LP	333 W Sheridan Avenue	Oklahoma City	OK	73102
NMSLO / Fee Lessee	James D. Finley	James D Finley	1308 Lake Street Suite 200	Fort Worth	TX	76102
NMSLO / Fee Lessee	Apache Corporation	Apache Corporation	303 Veterans Airpark Ln #1000	Midland	TX	79705
NMSLO Lessee	Kaiser-Francis Oil Company	Kaiser-Francis Oil Co	P.O. Box 21468	Tulsa	OK	74121
Fee Lessee	Matador Resources Company	Matador Pet. Etal.	5400 LBJ Freeway, Suite 1500	Dallas	TX	75240
Fee Lessee	Tom Brown Incorporated	Tom Brown, Inc.	508 W Wall, Suite 500	Midland	TX	79701

Notes: The affected parties above received notification of this C-108 application.

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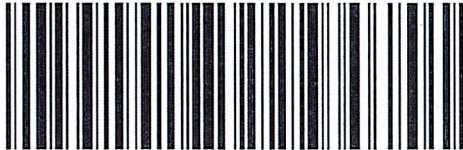
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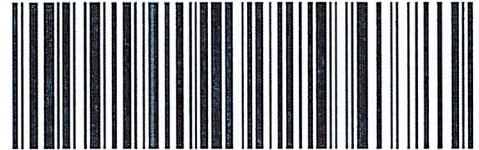
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HOUSTON TX 77210-4362

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FORT WORTH TX 76102-4505

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Kaiser-Francis Oil Company  
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TULSA OK 74121-1468

Tom Brown Incorporated  
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MIDLAND TX 79701-5062

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Apache Corporation  
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Devon Energy Production Company  
Limited Partnership  
333 W SHERIDAN AVE  
OKLAHOMA CITY OK 73102-5010

New Mexico Oil Conservation  
District 1  
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HOBBS NM 88240-9273

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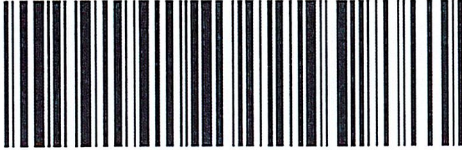
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