

# Protested SWD Application

By Chevron USA Inc. Recieved  
12/20/2024

**From:** [Gebremichael, Million, EMNRD](#)  
**To:** [Brian Wood](#)  
**Cc:** [Deana M. Bennett](#); [Goetze, Phillip, EMNRD](#); [Harris, Anthony, EMNRD](#); [Sandoval, Stacy, EMNRD](#)  
**Subject:** Protest of 3R Operating, LLC Application to Convert Liberty 4 #1 gas well to an SWD  
**Date:** Monday, December 30, 2024 9:38:02 AM

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Greetings Mr. Wood,

The OCD was notified by Chevron USA Inc., it is protesting the following injection permits request application of 3R Operating, LLC (“3R”) for produced water disposal in Lea County, NM:

- Liberty 4#1 well is located in Section 4, Township 20 South, Range 36 East, Lea County, New Mexico

Chevron USA Inc. is identified as affected person for the referenced application. For the application to proceed, 3R has two options; either resolve the matter with the protesting party or to go to a hearing before the Division. If the protest is withdrawn, then the application could be processed administratively. Meanwhile, OCD will retain your application until a resolution is reached on the status of the submittal. If you have any questions, please don’t hesitate to reach out to UIC group.

Regards,

Million Gebremichael, Petroleum Specialist III  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico, 87505  
Cell: 5054791137



**From:** [Deana M. Bennett](#)  
**To:** [Engineer, OCD, EMNRD](#)  
**Cc:** [Gebremichael, Million, EMNRD](#); [Earl E. DeBrine](#)  
**Subject:** [EXTERNAL] Protest of 3R Operating, LLC Application to Convert Liberty 4 #1 gas well to an SWD  
**Date:** Friday, December 20, 2024 8:59:19 AM  
**Attachments:** [Authorization to Inject\\_12162024140852.pdf](#)

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CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

**EXTERNAL EMAIL:** Please do not click any links or open any attachments unless you trust the sender and are expecting this message and know the content is safe.

Hello,

On behalf of Chevron USA Inc., I am submitting a protest of the administrative application submitted by 3R Operating, LLC to convert the Liberty 4 #1 gas well to a salt water disposal well. The Liberty 4#1 well is located in Section 4, Township 20 South, Range 36 East, Lea County, New Mexico.

A copy of the letter sent to Chevron is attached.

Please let me know if you require any further information from me with respect to this protest.

Thanks.

Deana



Deana M. Bennett

Lawyer

Modrall Sperling | [www.modrall.com](http://www.modrall.com)

P.O. Box 2168 | Albuquerque, NM 87103-2168

500 4th St. NW, Ste. 1000 | Albuquerque, NM 87102

D: 505.848.1834 | O: 505.848.1800



December 10, 2024

Chevron USA Inc  
6301 Deauville  
Midland TX 79706

3R Operating, LLC is applying (see attached application) to convert the Liberty 4 #1 gas well to a saltwater disposal well. As required by NM Oil Conservation Division (NMOCD) rules, I am notifying you of the following proposed saltwater disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Liberty 4 #1 (fee lease) TD = 13,630'  
Proposed Disposal Zone: Delaware (5,350' – 6,300')  
Location: 1800' FSL & 330' FWL Sec. 4, T. 20 S., R. 36 E., Lea County, NM  
Approximate Location: 6 air miles southwest of Monument, NM  
Applicant Name: 3R Operating, LLC (432) 684-7877  
Applicant's Address: 4000 N. Big Spring St., Suite 210, Midland, TX 79705

Submittal Information: Application for a saltwater disposal well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. NMOCD address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3441. Their e-mail address is: ocd.engineer@emnrd.nm.gov.

Please call me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Brian Wood". The signature is written in a cursive, slightly slanted style.

Brian Wood

# AE Order Number Banner

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**Application Number: pMSG2436450081**

**SWD-2643**

**3R Operating, LLC [331569]**

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 \_\_\_\_\_ XXX Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ XXX Yes \_\_\_\_\_ No

II. OPERATOR: 3R OPERATING, LLC

ADDRESS: 4000 N. BIG SPRING ST., SUITE 210, MIDLAND, TX 79705

CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120

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 \_\_\_\_\_ XXX \_\_\_\_\_ No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_

LIBERTY 4 # 1  
SWD; DELAWARE  
96100-

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: BRIAN WOOD

TITLE: CONSULTANT

SIGNATURE: \_\_\_\_\_

DATE: 12-10--24

E-MAIL ADDRESS: brian@permitswest.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: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

Side 1

### INJECTION WELL DATA SHEET

OPERATOR: 3R OPERATING, LLC

WELL NAME & NUMBER: LIBERTY 4 #1

WELL LOCATION: 1800' FSL & 330' FWL      L      04      20 S      36 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

**WELLBORE SCHEMATIC**

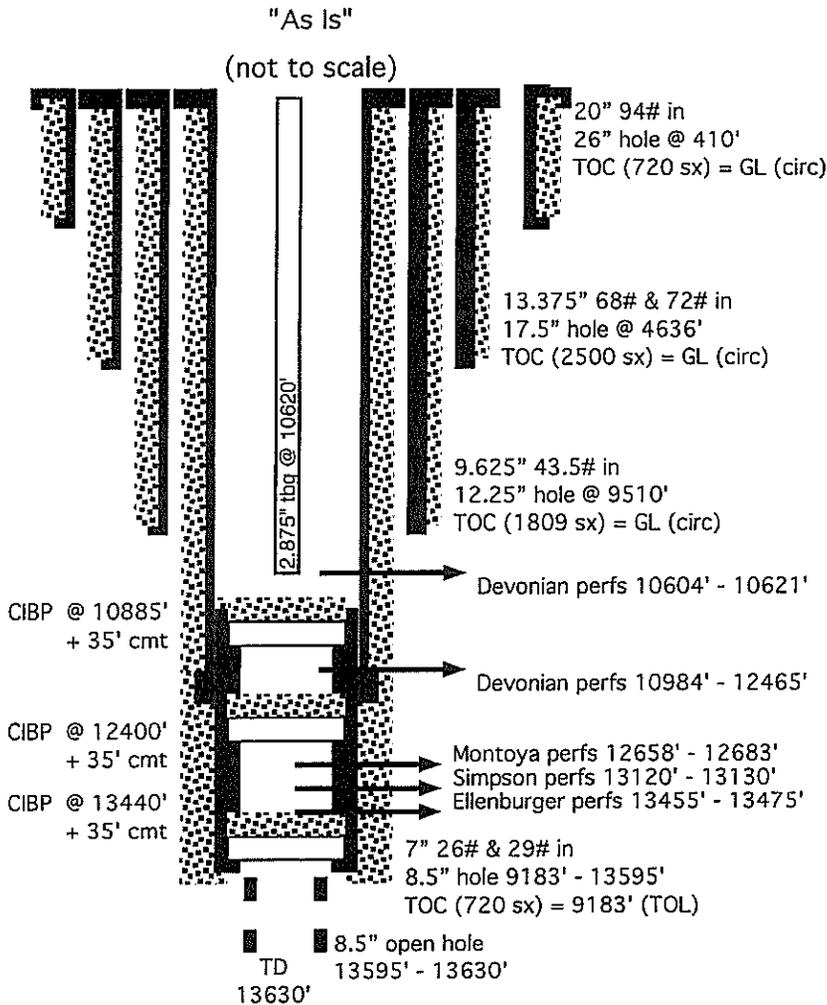
**WELL CONSTRUCTION DATA**

Surface Casing

Intermediate Casing

Production Casing

Injection Interval



Hole Size: 26"      Casing Size: 20"

Cemented with: 720 sx.      or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: GL      Method Determined: CIRC.

Hole Size: 17.5"      Casing Size: 13.375"

Cemented with: 2500 sx.      or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: GL      Method Determined: CIRC.

Hole Size: 12.25"      Casing Size: 9.625"

Cemented with: 1650 sx.      or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: GL      Method Determined: CIRC.

Total Depth: CSG @ 9510', LINER @ 13595', & OPEN HOLE 13630'

5350 feet to 6300'

(Perforated or Open Hole; indicate which)

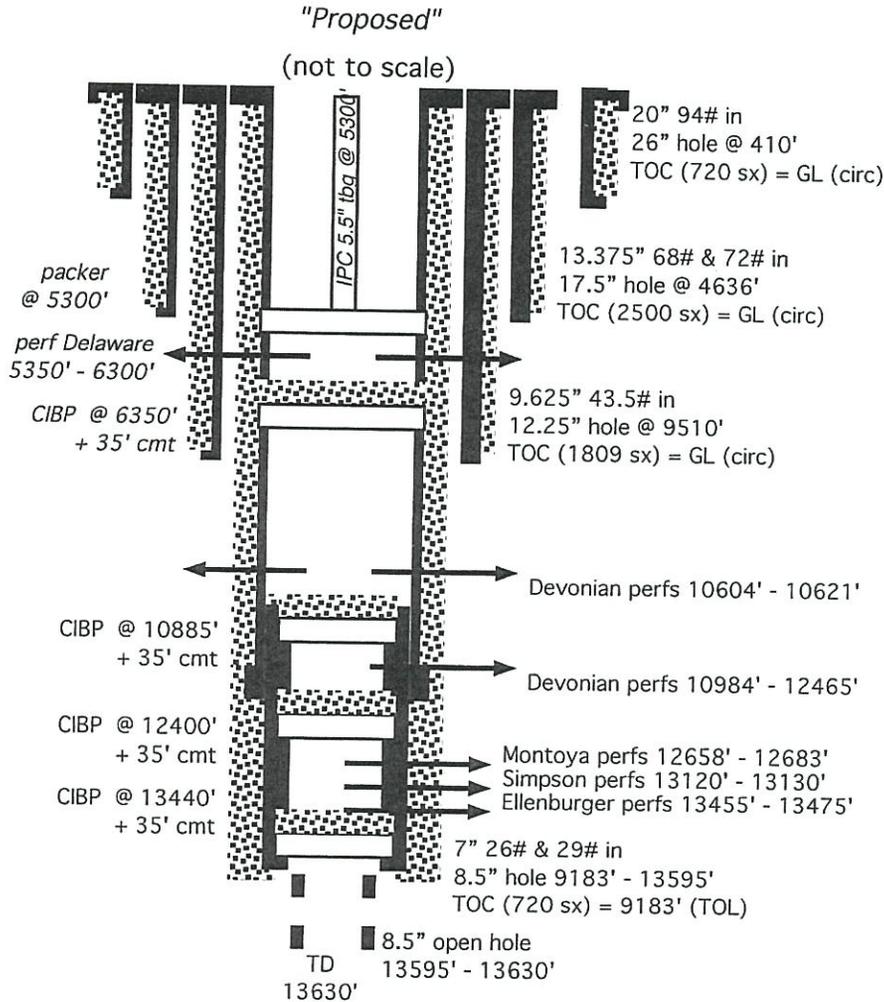
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**WELLBORE SCHEMATIC**



**WELL CONSTRUCTION DATA**

Surface Casing

Hole Size: 26"      Casing Size: 20"  
 Cemented with: 720 sx.      or \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: GL      Method Determined: CIRC.

Intermediate Casing

Hole Size: 17.5"      Casing Size: 13.375"  
 Cemented with: 2500 sx.      or \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: GL      Method Determined: CIRC.

Production Casing

Hole Size: 12.25"      Casing Size: 9.625"  
 Cemented with: 1650 sx.      or \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: GL      Method Determined: CIRC.

Total Depth: CSG @ 9510', LINER @ 13595', & OPEN HOLE 13630'

Injection Interval

5350 feet to 6300'

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**

Tubing Size: 5.5" Lining Material: IPC

Type of Packer: STAINLESS STEEL OR NICKEL

Packer Setting Depth: 5300'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection? \_\_\_\_\_ Yes XXX No

If no, for what purpose was the well originally drilled? DEVONIAN-ELLENBURGER GAS WELL

2. Name of the Injection Formation: DELAWARE

3. Name of Field or Pool (if applicable): SWD; DELAWARE (96100)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. YES - SEE EXHIBIT B

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

OVER: YATES (3116'), SEVEN RIVERS (3500'), QUEEN (4094').

UNDER: BONE SPRING (6659'), WOLFCAMP (9305'), STRAWN (9473'), ATOKA (9646'), MORROW (9800'), MONTOYA (12510'), SIMPSON (12848'), & ELLENBURGER (13375')

3R OPERATING, LLC  
LIBERTY 4 #1  
1800' FSL & 330' FWL  
SEC. 4, T. 20 S., R. 36 E., LEA COUNTY, NM

PAGE 1

30-025-35371

I. Goal is to convert a 13,630' deep gas well to a saltwater disposal well. Proposed disposal interval will be 5,350' - 6,300' in the SWD; Delaware (96100). Well currently produces from the Osudo; Devonian, North (9715). It is the only well in the field. Production in the first nine months of 2024 has averaged <7 bopd and <4 Mcfd. The well is no longer economical to produce. The well is on private surface and private minerals. See Exhibit A for C-102 and map.

II. Operator: 3R Operating, LLC [OGRID 331569]  
Operator phone number: (832) 304-8093  
Operator address: 4000 N. Big Spring St., Suite 210, Midland, TX 79705  
Contact for Application: Brian Wood (Permits West, Inc.)  
Phone: (505) 466-8120

III. A. (1) Lease name: Liberty  
Lease area: S2NW4 & N2SW4 Sec. 4, T. 20 S., R. 36 E.  
Well name and number: Liberty 4 #1  
Location: 1800' FSL & 330' FWL Section 4, T. 20 S., R. 36 E.

A. (2) Surface casing (20", 94#) is set at 410' in a 26" hole and cemented to GL with 720 sacks. Circulated.

Intermediate casing (13.375", 68# & 72#) is set at 4,636' in a 17.5" hole and cemented to GL with 2,500 sacks. DV tool and packer @ 3700'. Circulated.

Production casing (9.625", 43.5#) is set at 9,510' in a 12.25" hole and cemented to GL with 1,650 sacks. Circulated.

Liner (7", 26# & 29#) is set from 9,183' to 13,595' in an 8.5" hole and cemented to TOL with 720 sacks.

3R OPERATING, LLC  
 LIBERTY 4 #1  
 1800' FSL & 330' FWL  
 SEC. 4, T. 20 S., R. 36 E., LEA COUNTY, NM

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CIBPs are set at 13,440', 12,400', and 10,885'. Each is topped with 35' of cement.

3R will set a CIBP at 6350' (50' below lowest perforation) and top it with 35' of cement.

- A. (3) IPC 5.5" 23# P-110 injection string will be run from GL to  $\approx$ 5,300'. (Disposal interval will be 5,350' to 6,300'.)
- A. (4) A stainless-steel or nickel-plated packer will be set at  $\approx$ 5,300'.
- B. (1) Disposal zone will be the Delaware (SWD; Delaware (96100) pool).
- B. (2) Disposal interval will be perforated from 5,350' to 6,300'.
- B. (3) Well was drilled as a Devonian oil well.
- B. (4) Devonian, Montoya, Simpson, and Ellenburger were perforated (Exhibit B). Latter three are isolated below CIBPs and cement. Devonian will be similarly isolated after the C-108 is approved.
- B. (5) Actual or potentially productive zones above the Delaware (5,338') are the Yates (3,116'), Seven Rivers ( $\approx$ 3,500'), and Queen (4,094'). Bone Spring (6,659'), Wolfcamp (9,305'), Strawn (9,473'), Atoka (9,646'), Morrow ( $\approx$ 9,800'), Devonian (10,536'), Montoya (12,510'), Simpson (12,848'), and Ellenburger (13,375') are actual or potentially productive zones below the Delaware.

Closest Delaware, Bell Canyon, Cherry Canyon, or Brushy Canyon producer is >4 miles northwest in E-22-19s-35e.

- IV. This is not an expansion of an existing injection project. It is disposal only.

3R OPERATING, LLC  
 LIBERTY 4 #1  
 1800' FSL & 330' FWL  
 SEC. 4, T. 20 S., R. 36 E., LEA COUNTY, NM

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V. Exhibit C shows and tabulates the 3 existing wells within a half-mile radius. All three wells are P&A and all three penetrated the Delaware. Exhibit D shows all 103 existing wells (21 oil or gas + 52 P&A + 9 WIW + 21 water) within a two-mile radius. The water injectors are Yates-Seven Rivers-Queen or Grayburg-San Andres.

All leases within a half-mile radius are BLM or fee. Exhibit E shows and tabulates all leases within a one-mile radius. Two-mile radius leases are BLM, fee, or NMSLO (Exhibit F).

VI. All 3 wells within a half-mile penetrated the Delaware. All are P&A and their well bore diagrams are in Exhibit G. Closest Delaware well (30-025-27960 is 4 miles SW in G-23-20s-35e. It is a SWD; Queen-Delaware-Bone Spring well.

- VII. 1. Average injection rate will be  $\approx$ 4,000 bwpd.  
 Maximum injection rate will be 5,000 bwpd.
2. System will be open and closed. Water will both be trucked and piped.
3. Average injection pressure will be  $\approx$ 1,000 psi. Maximum injection pressure will be 1070 psi (= 0.2 psi/ft x 5350' (top perforation)).
4. Disposal water will be produced water, mainly Bone Spring, but also Grayburg, Morrow, San Andres, Strawn, Wolfcamp, et al. There are 299 approved Bone Spring and 113 approved Wolfcamp wells in T. 19 S., R. 35 & 36 E. and T. 20 S., R. 35 & 36 E. Abstracts from the NM Produced Water Quality Database v.2 for wells in T. 19 & 20 S., R. 35 & 36 E. are in Exhibit H. A table of TDS ranges from those wells is below.

Formation	TDS range (mg/l)
Abo	54,512 – 84,095
Artesia	13,609 – 311,153
Bone Spring	25,800 – 195,200
Devonian	44,825
Grayburg	17,249
Grayburg San Andres	10,905 – 71,407
San Andres	26,344 – 73,409

3R OPERATING, LLC  
 LIBERTY 4 #1  
 1800' FSL & 330' FWL  
 SEC. 4, T. 20 S., R. 36 E., LEA COUNTY, NM

PAGE 4

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No compatibility problems have been reported from the closest (4 miles southwest) Delaware SWD well (30-025-27960). At least 2,231,636 barrels have been disposed in the Queen, Delaware, and Bone Spring since 1994.

5. No Delaware oil or gas well is within 4 miles.

VIII. The Delaware interval (1,321' thick) is mainly sandstone with some limestone and shale. Sandstone strata will be the well's goal. Confining strata are 180' to 200' of tight impermeable limestone at the top of the Bone Spring. There are also a few thin (30' - 80') and tight intervals at the base of the Brushy Canyon. Closest possible underground source of drinking water above the proposed disposal interval are the Quaternary sand, gravel, and conglomerate deposits at the surface. According to State Engineer records (Exhibit I), closest water well is 0.71 miles north. Deepest water well within 2-miles is 135'. Liberty 4 #1 (Exhibit I) is 2 miles inside the Ogallala aquifer and 4 miles outside the Capitan reef. No underground source of drinking water is below the proposed disposal interval.

Formation tops are:

Quaternary = 0'  
 Rustler = 1,584'  
 Yates = 3,116'  
 Queen = 4,094'  
 San Andres = 4,441'  
 Delaware = 5,338'  
*disposal interval = 5,350' - 6,300'*  
 Bone Spring = 6,659'  
 Wolfcamp = 9,305'  
 Strawn = 9,473'  
 Atoka = 9,646'  
 Mississippian = 9,978'  
 Devonian = 10,576'  
 Montoya = 12,510'

3R OPERATING, LLC  
LIBERTY 4 #1  
1800' FSL & 330' FWL  
SEC. 4, T. 20 S., R. 36 E., LEA COUNTY, NM

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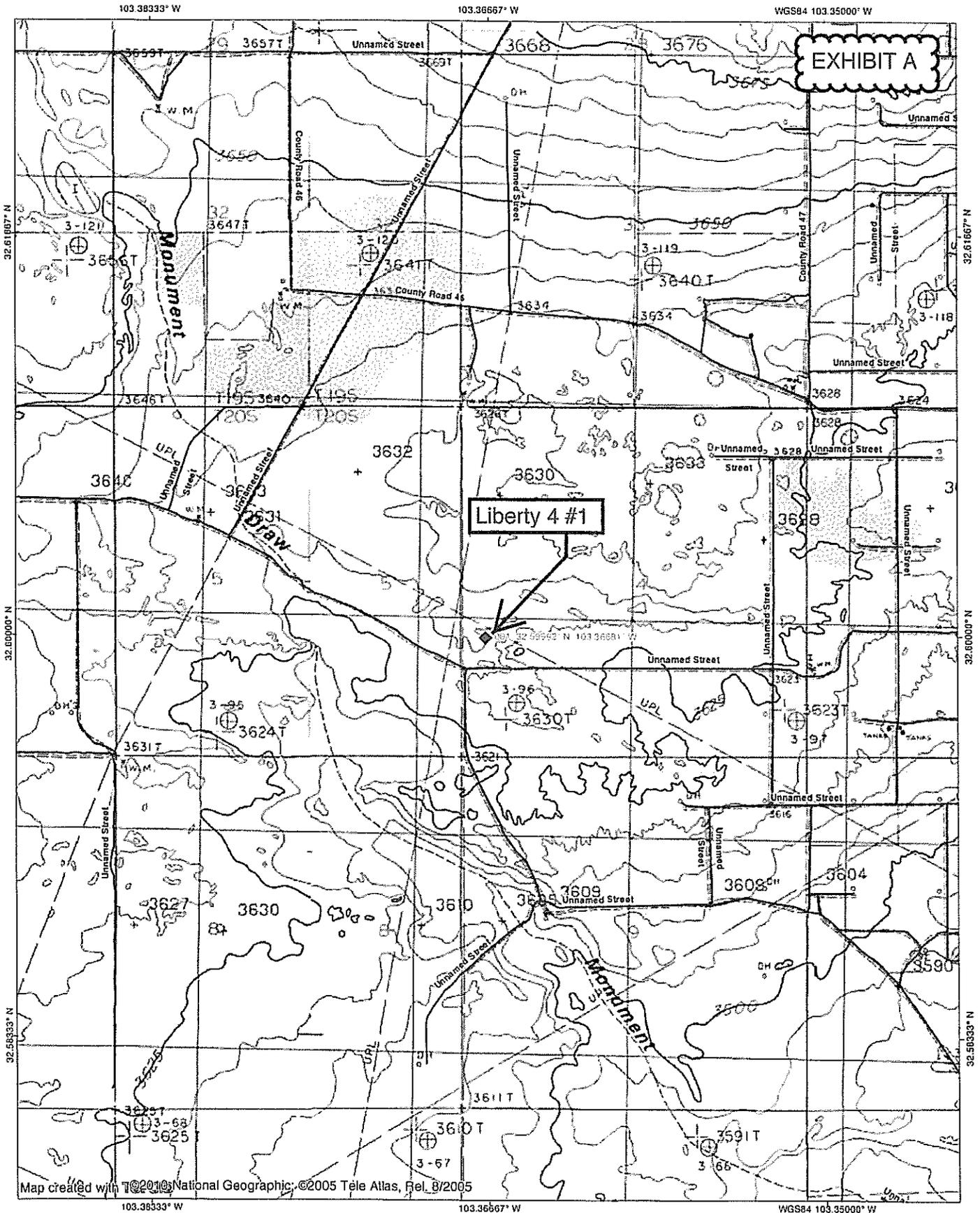
30-025-35371

Simpson = 12,848'  
Ellenburger = 13,375'  
TD = 13,630'

According to State Engineer records (Exhibit I), the deepest water well within 2-miles is 135'. There will be >5,200' of vertical separation, including multiple layers of shale and anhydrite, between the bottom of the only likely underground water source (Quaternary) and the top of the Delaware.

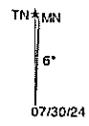
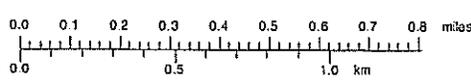
- IX. Well will be stimulated with acid as needed.
  
- X. GR/CCL/CBL/USIT logs were run and are on file with NNMOCD.
  
- XI. According to State Engineer records (Exhibit I), 21 water wells are within a 2-mile radius, closest of which is 0.71 miles north. Two water wells within a mile were sampled. Locations and analyses are in Exhibit J.
  
- XII. 3R Operating, LLC (Exhibit K) is not aware of any geologic or engineering data that may indicate the Delaware is in hydrologic connection with any underground source of water. Deepest water well within a 2-mile radius is 135'. There are 105 active Delaware SWD wells in New Mexico.
  
- XIII. A legal ad (Exhibit L) was published on November 21, 2024. Notice (Exhibit M) and this application has been sent to the surface owner (L & K Ranch), all well operators regardless of depth, government lessors, lessees, and operating right holders within a half-mile.

TOPOI map printed on 07/30/24 from "Untitled.tpo"



Map created with ©2010 National Geographic, ©2005 Tele Atlas, Rel. 8/2005

NATIONAL GEOGRAPHIC



07/30/24

P. O. Box 1980  
Hobbs, NM 88241-1980

State of New Mexico  
Department of Energy, Minerals, and Natural Resources

EXHIBIT A

Form C-102  
Ad 02-10-94  
Instructions on back

DISTRICT II  
P. O. Drawer DD  
Artesia, NM 88211-0719

RECEIVED JAN 8 2001  
OIL CONSERVATION DIVISION  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Submit to the Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

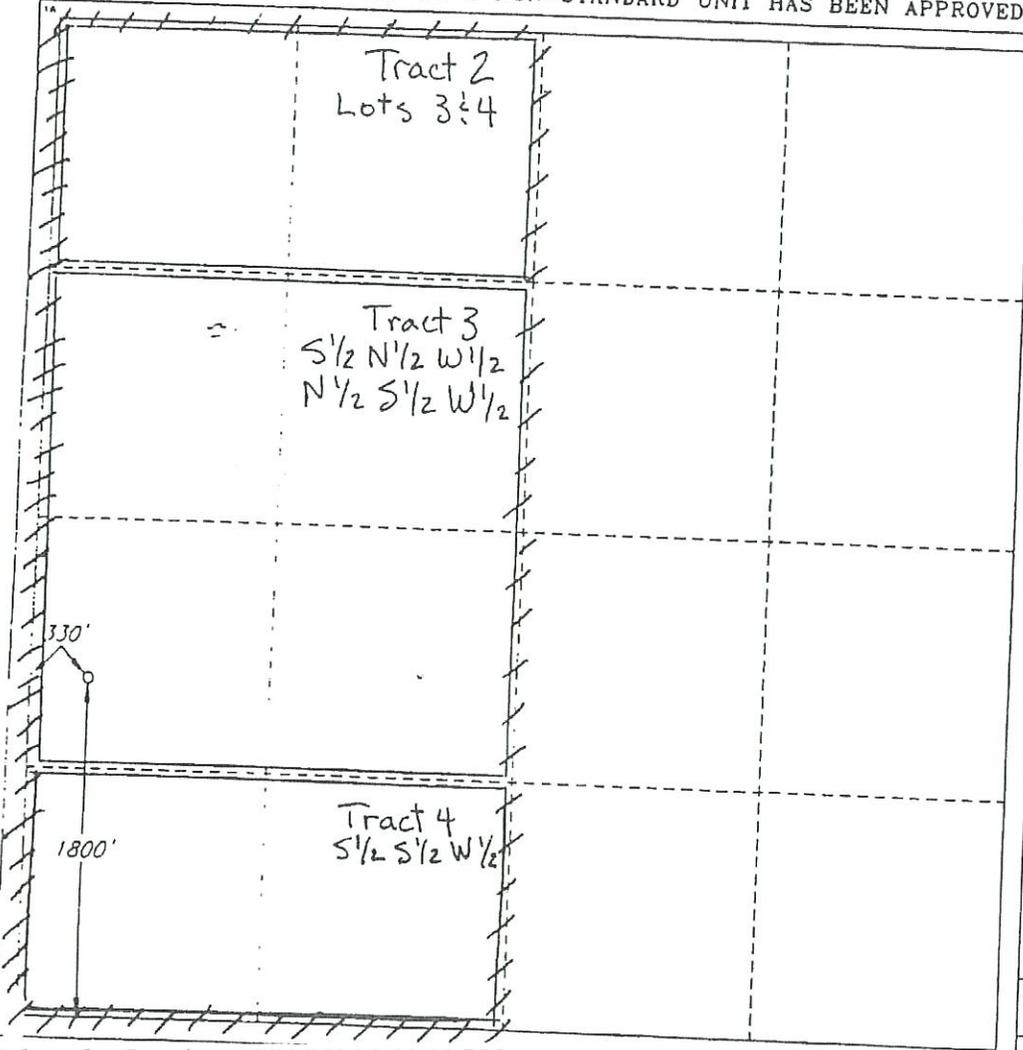
DISTRICT III  
1000 Rio Brazos Rd.  
Aztec, NM 87410

DISTRICT IV  
P. O. Box 2088  
Santa Fe, NM 87507-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-35371		2 Pool Code ✓		3 Pool Name Wildcat Ellenburger					
4 Property Code 27169		5 Property Name LIBERTY 4 FEDERAL COM						6 Well Number 1	
7 OGRID No. 018917		8 Operator Name READ & STEVENS, INC.						9 Elevation 3629'	
10 SURFACE LOCATION									
11 L or lot no. L	12 Section 4	13 Township 20 SOUTH	14 Range 36 EAST, N.M.P.M.	15 Lot Ida	16 Feet from the 1800'	17 North/South line SOUTH	18 Feet from the 330'	19 East/West line WEST	20 County LEA
21 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
22 L or lot no.	23 Section	24 Township	25 Range	26 Lot Ida	27 Feet from the	28 North/South line	29 Feet from the	30 East/West line	31 County
32 Dedicated Acres 320		33 Joint or Infill N		34 Consolidation Code P		35 Order No. NSL 4536			
NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION									



**OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *John C. Maxey, Jr.*  
Printed Name: John C. Maxey, Jr.  
Title: Operations Manager  
Date: 1-16-2001

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

Date of Survey  
DECEMBER 29, 2000

Signature and Seal of Professional Surveyor

Certification No. NO. 7700-0001  
V. BEZNER  
#7920

Phone: (505) 476-3441 Fax: (55) 476-3462  
 General Information  
 Phone: (505) 629-6116  
 Online Phone Directory Visit:  
 https://www.emnrd.nm.gov/ocd/contact-us

State of New Mexico  
 Energy, Minerals & Natural Resources  
 Department  
**OIL CONSERVATION DIVISION**

**EXHIBIT A**

**C-102**

Revised July 9, 2024  
 Submit Electronically  
 via OCD Permitting

Submittal Type:	<input type="checkbox"/> Initial Submittal
	<input checked="" type="checkbox"/> Amended Report
	<input type="checkbox"/> As Drilled

**WELL LOCATION INFORMATION**

API Number 30-025-35371	Pool Code 96100	Pool Name SWD; DELAWARE
Property Code 334247	Property Name LIBERTY 4	Well Number 001
OGRID No. 331569	Operator Name 3R OPERATING, LLC	Ground Level Elevation 3629'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

**Surface Location**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	4	20 S	36 E		1800 FSL	330 FWL	32.59992	-103.36681	LEA

**Bottom Hole Location**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	4	20 S	36 E		1800 FSL	330 FWL	32.59992	-103.36681	LEA

Dedicated Acres N/A	Infill or Defining Well N/A	Defining Well API N/A	Overlapping Spacing Unit (Y/N) N/A	Consolidation Code N/A
Order Numbers: NSL-4536 & NSL-4536A			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

**Kick Off Point (KOP)**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

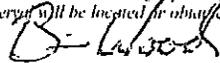
**First Take Point (FTP)**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

**Last Take Point (LTP)**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County

Unitized Area or Area of Uniform Interest	Spacing Unit Type <input type="checkbox"/> Horizontal <input checked="" type="checkbox"/> Vertical	Ground Floor Elevation:
---	--	-------------------------

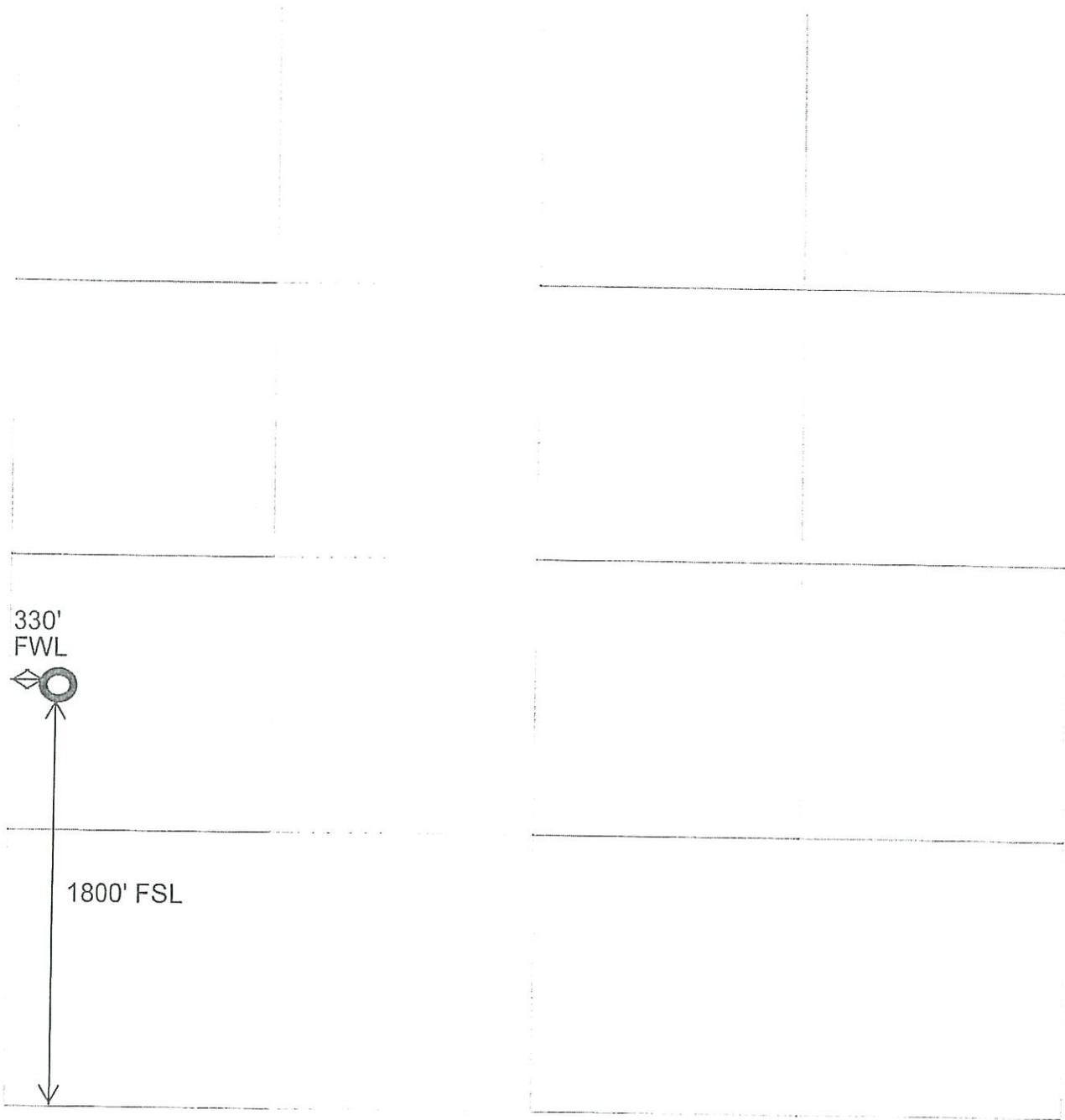
<p><b>OPERATOR CERTIFICATIONS</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p><i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obligated a compulsory pooling order from the division.</i></p> <p> 11-22-24</p> <p>Signature _____ Date _____</p> <p><b>BRIAN WOOD</b></p> <p>Printed Name _____</p> <p>brian@permitswest.com</p> <p>Email Address _____</p>	<p><b>SURVEYOR CERTIFICATIONS</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p style="text-align: center;"><b>ORIGINAL SURVEY BY VYRON L. BEZNER ON FILE WITH NMOCD</b></p> <p>Signature and Seal of Professional Surveyor _____</p> <table border="1" style="width: 100%;"> <tr> <td>Certificate Number 7920</td> <td>Date of Survey 12-29-2000</td> </tr> </table>	Certificate Number 7920	Date of Survey 12-29-2000
Certificate Number 7920	Date of Survey 12-29-2000		

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

EXHIBIT A

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators dedicating acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, within the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

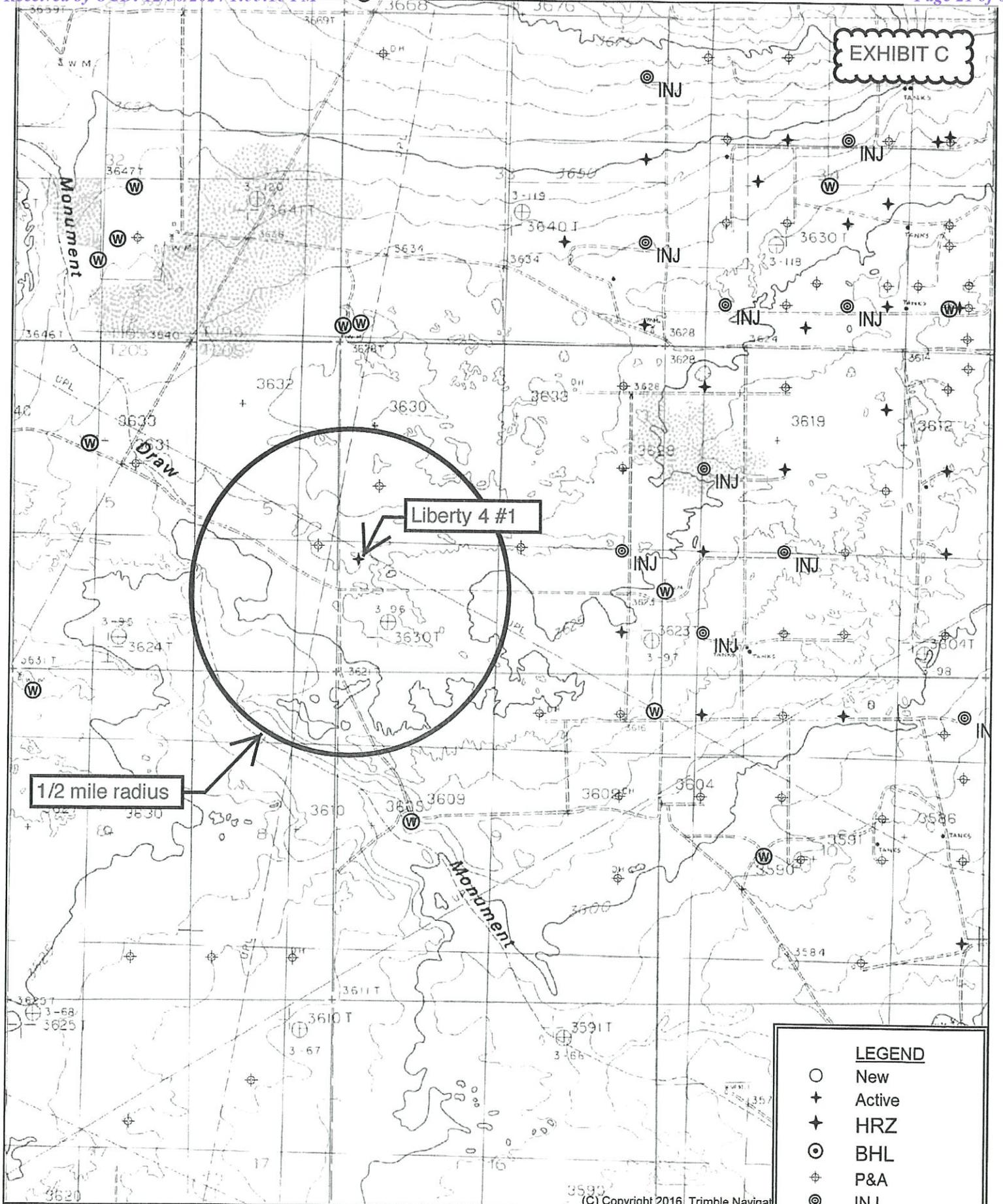


## PERFORATION TABLE

DEPTH	HOLES	COMMENT
10576'	n/a	Devonian top
10600' - 10800'	<i>planned</i>	<i>proposed disposal interval</i>
10604' - 10614'	50	500 gal 15% NEFe HCl (twice)
10619' - 10621'		
10647' - 10650'		
10657' - 10660'		
10669' - 10671'		
10694' - 10696'		
10885'	n/a	CIBP w/ 35' cement on top
10984' - 10986'	8	swab test, 100% water, squeeze perms w/ 75 sx cmt
11714' - 11719'	31	no acid, swab water
11731' - 11737'		
11747' - 11750'		
11841' - 11847'	22	1000 gal, 15% NEFe HCl, swab water
11863' - 11867'		
12041' - 12043'	25	500 gal 15% NEFe HCl, swab water
12049' - 12051'		
12056' - 12058'		
12064' - 12066'		
12071' - 12073'	32	500 gal 15% NEFe HCl, swab water
12115' - 12118'		
12124' - 12126'		
12132' - 12134'		
12138' - 12140'		
12144' - 12146'		
12152' - 12154'		
12400'	n/a	CIBP w/ 35' cement on top
12455' - 12465'	21	no acid, swab water
12510'	n/a	Montoya top
12658' - 12660'	24	100 gal 15% NEFe HCl, swab, show of oil
12668 - 12670'		
12674' - 12678'		
12681' - 12683'		
12848'	n/a	Simpson top
13120' - 13130'	21	500 gal 7.5% NEFe HCl, swab water
13440'	n/a	CIBP w/ 35' cement on top
13348' - 13358'	21	500 gal 7.5% NEFe HCl, swab water
13375'	n/a	Ellenburger top
13455' - 13475'	41	2000 gal 15% NEFe, swab water
13490'	n/a	PBTD
13524'	n/a	Granite Wash top
13630'	n/a	TD

## EXHIBIT B

EXHIBIT C



Liberty 4 #1

1/2 mile radius

LEGEND	
○	New
+	Active
★	HRZ
⊙	BHL
⊕	P&A
⊖	INJ
⊗	SWD
⊙	Brine
⊙	Water



Quad: MONUMENT SOUTH  
 Scale: 1 inch = 2,000 ft.

SORTED BY DISTANCE FROM LIBERTY 4 #1

API	OPERATOR	WELL	STATUS	UNIT-SECTION-T20S-R36E	TVD	ZONE @ TD	FEET FROM LIBERTY 4 #1
3002535847	Read & Stevens	Klein 5 001	P&A	I-5	10933	Devonian	695
3002536164	Read & Stevens	Liberty 4 003	P&A	E-4	7200	Bone Spring	1260
3002535947	Read & Stevens	Liberty 4 002	P&A	J-4	9400	Wolfcamp	2644

EXHIBIT C

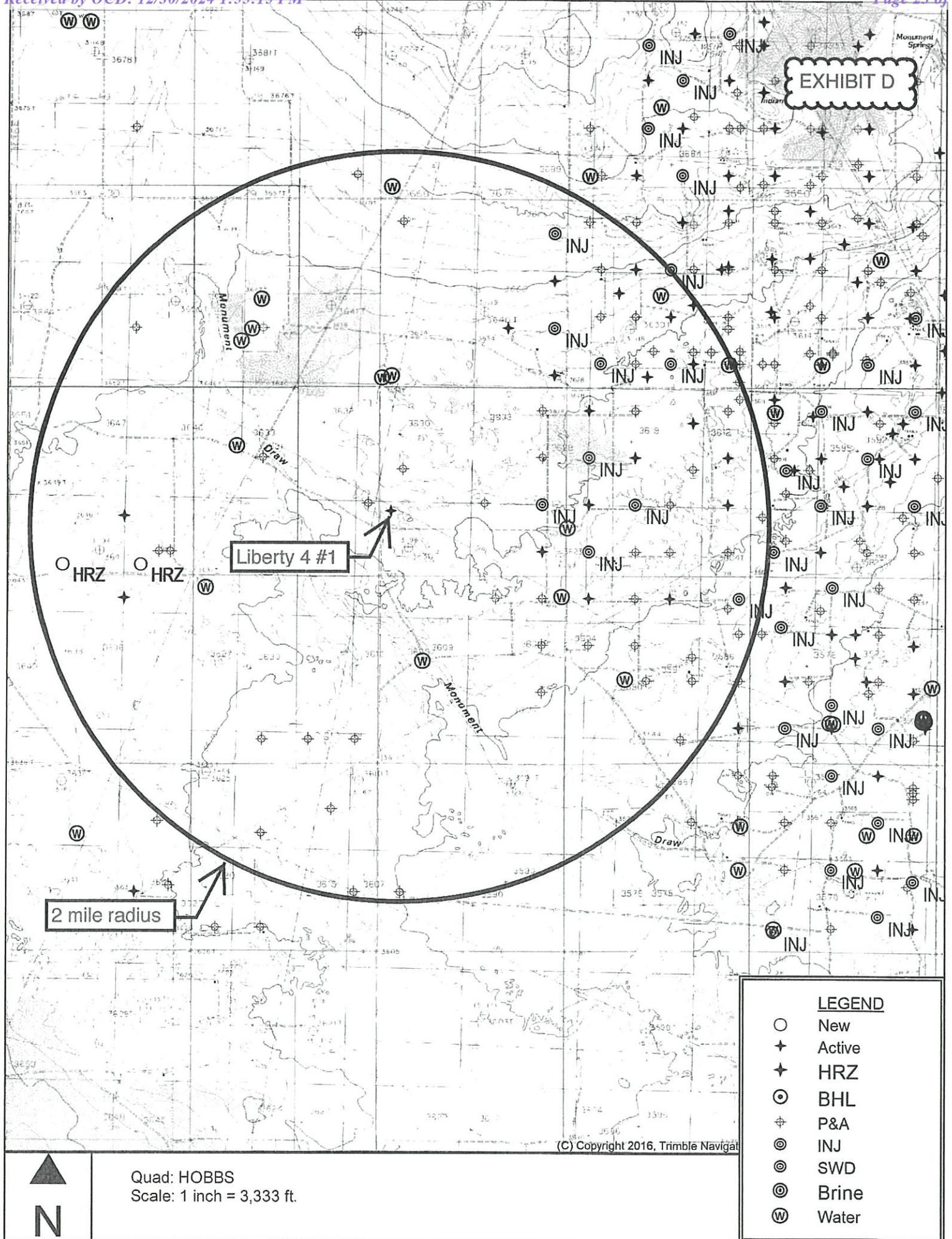


EXHIBIT D

Liberty 4 #1

2 mile radius

LEGEND	
○	New
+	Active
✦	HRZ
⊙	BHL
⊕	P&A
⊗	INJ
⊚	SWD
⊙	Brine
⊗	Water

(C) Copyright 2016, Trimble Navigat

Quad: HOBBS  
Scale: 1 inch = 3,333 ft.

## LIBERTY 4 #1 AREA OF REVIEW (1 MILE RADIUS) LEASES

Aliquot Parts in Area of Review	Lessor	Lease	Lessee(s) of Record	Well Operators (regardless of depth)
N2NW4 4-20s-34e	BLM	NMNM-089875	L G Nesrsta, G H Sanderson, & F Thompson	none
S2NW4, SWNE, NWSE, & N2SW4 4-20s-36e	fee	Hard patent	3R	3R (S2NW4)
S2SW4 & SWSE 4-20s-36e	fee	Strickland patent	3R	3R (N2SW4)
E2NE4 & SWSE 5-20s-36e	fee	Harrington patent	L & K et al	none
SE4 5-20s-36e	fee	Allred patent	L & K et al	none
N2NE4 8-20s-36e	BLM	NMNM-089875	L G Nesrsta, G H Sanderson, & F Thompson	none
N2NW4 9-20s-36e	BLM	NMNM-089873	Apache, Chevron Maverick, ZPZ	none

EXHIBIT E



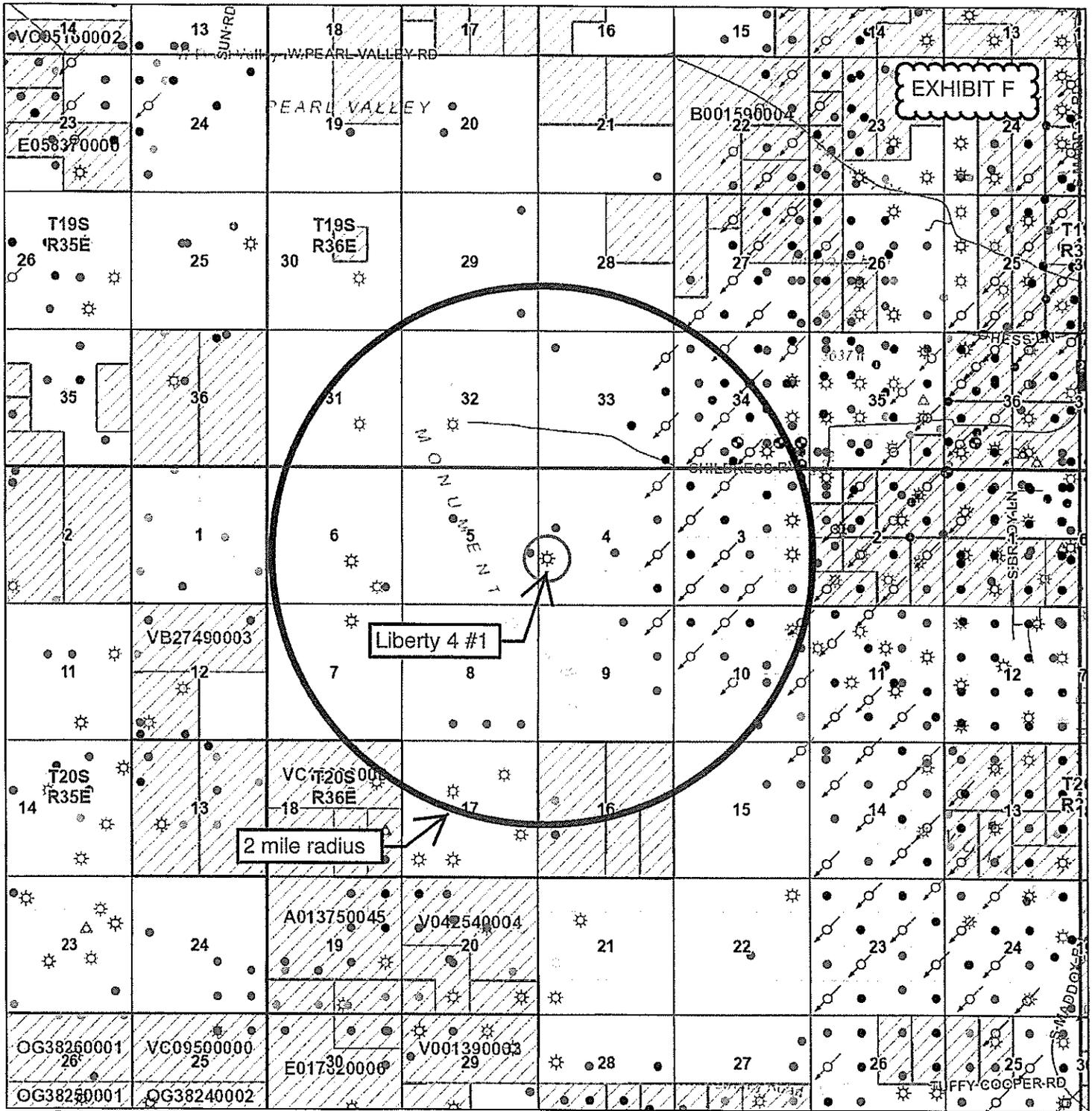


EXHIBIT F

Liberty 4 #1

2 mile radius

### Oil, Gas, and Minerals Leases and Wells

0 0.42 0.85 1.7 mi

**New Mexico State Land Office**

Disclaimer:  
The New Mexico State Land Office assumes no responsibility or liability for, or in connection with the accuracy, reliability or use of the information provided herein with respect to State Land Office data or data from other sources.

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Map Created: 7/29/2024

	Override 1		NMOCDC_Inactive
	Subdivisions		Miscellaneous
	Sections		CO2 Cancelled
	Townships		CO2, Plugged
	County Boundaries		CO2, Temporarily Abandoned
	State Boundary		Gas, Cancelled
	County Seats		Gas, Plugged

Sorted by distance from Liberty 4 #1

WELL	SPUD	TVD	ZONE @ TD	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW TOC DETERMINED
Klein 5 001	3/1/02	10933	Devonian	P&A	17.5	13.375	408	375 sx	GL	Circ 90 sx
3002535847					11	8.625	4598	1000 sx	GL	Circ 60 sx
I-5-20S-36E					7.875	5.5	10913	875 sx	3600	Calc
Liberty 4 #1	7/4/02	9400	Wolfcamp	P&A	17.5	13.375	401	375 sx	GL	Circ.
3002535947					11	8.625	3500	650 sx	GL	Circ.
J-4-20S-36E					7.875	5.5	9400	975 sx	GL	Circ.
Liberty 4 #3	2/27/03	7200	Bone Spring	P&A	17.5	13.375	445	375 sx	GL	Circ.
3002536164					11	8.625	3110	800 sx	GL	Circ.
E-4-20S-36E					7.875	5.5	7200	850 sx	2994	CBL

EXHIBIT G



6/19/2013

Wellbore Diagram

r263

30-025-35847-00-00

KLEIN 5 No. 001

Company Name: READ & STEVENS INC

Location: Sec: 5 T: 20S R: 36E Spot:

Lat: 32.6005279393325 Long: -103.368961229494

Property Name: KLEIN 5

County Name: Lea

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)
HOL1	408	17.5		
SURF	408	13.375	54.5	408
HOL2	4598	11		
I1	4598	8.625	32	4598
HOL3	10933	7.875		
PROD	10913	5.5	17	10913
T1	10518	2.875		

perf @ 458'  
circ. down 5.5"  
GL - 458'

Cement from 408 ft. to surface  
Surface: 13.375 in. @ 408 ft.  
Hole: 17.5 in. @ 408 ft.  
**CIRC**

perf @ 1700'  
sqz 25 sx @  
1567' - 1700'

25 sx @  
3354' - 3552'

Cement from 4598 ft. to surface  
Intermediate: 8.625 in. @ 4598 ft.  
Hole: 11 in. @ 4598 ft.  
**CIRC**

25 sx @  
4468' - 4650'

25 sx @ 5852'

25 sx @ 8966'

9408' DVTOOL

CIBP @ 9607'  
+ 25 SX

Cement from 10913 ft. to surface  
Tubing: 2.875 in. @ 10518 ft.  
Production: 5.5 in. @ 10913 ft.  
Hole: 7.875 in. @ 10933 ft.

TD: 0 TVD: 10933 PBD:

Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
I1	4598	0	UK	1000
PROD	10913	0	UK	875
SURF	408	0	UK	375

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Sqz
10656	10660			
9668	9723			

8836-8909 - SQZ 7/2009

Formation Information

St Code	Formation	Depth

CIBP @ 10,600' + 35' CMT  
3/2009 ?

1<sup>ST</sup> STAGE

?

2<sup>ND</sup> Stage  
TOC 3600'  
CALC. ?

5/2009

EXHIBIT G

Liberty 4 #2  
30-025-35947  
J-4-20s-36e  
spud 7-4-02  
P&A 8-5-04

(not to scale)

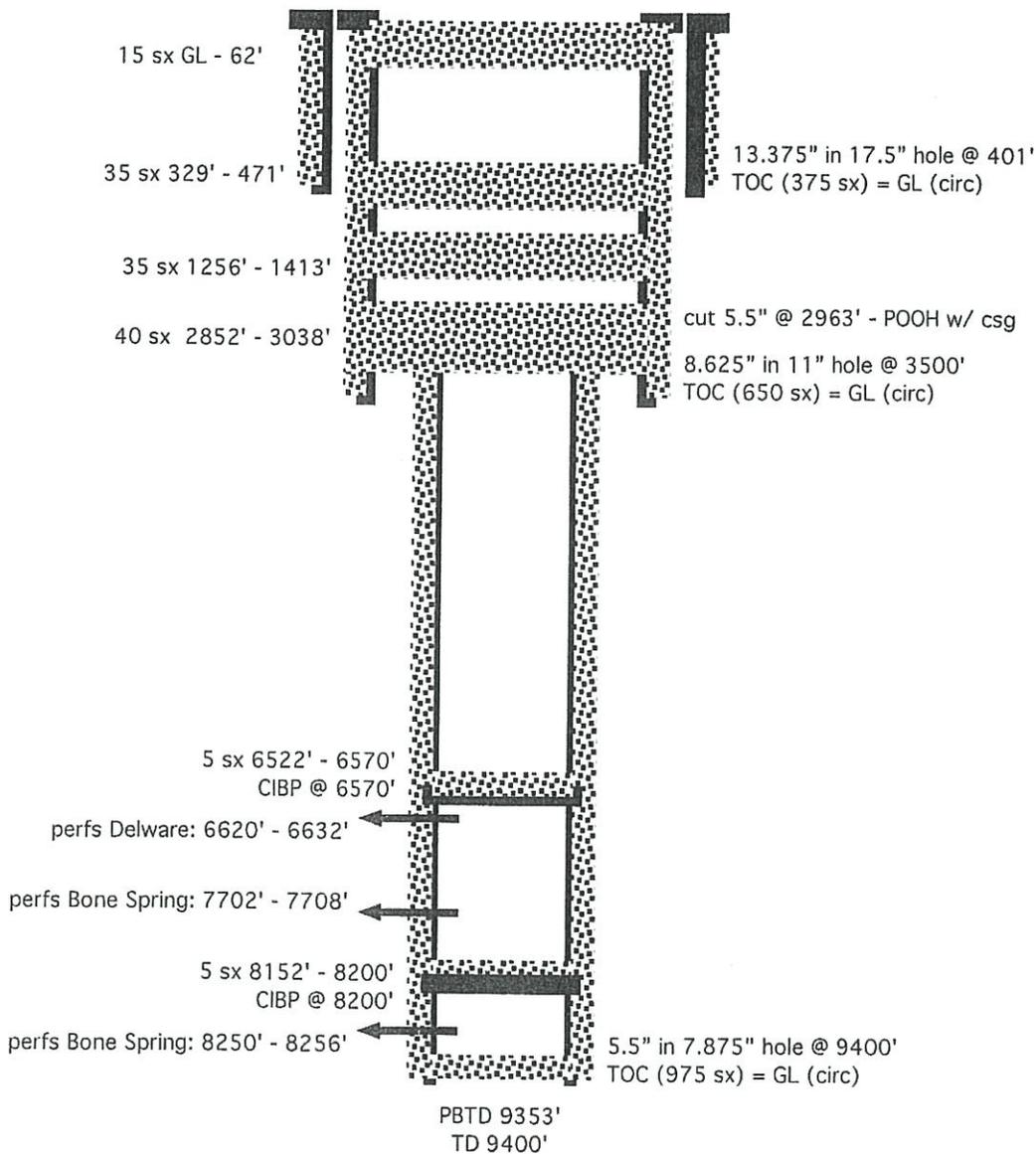
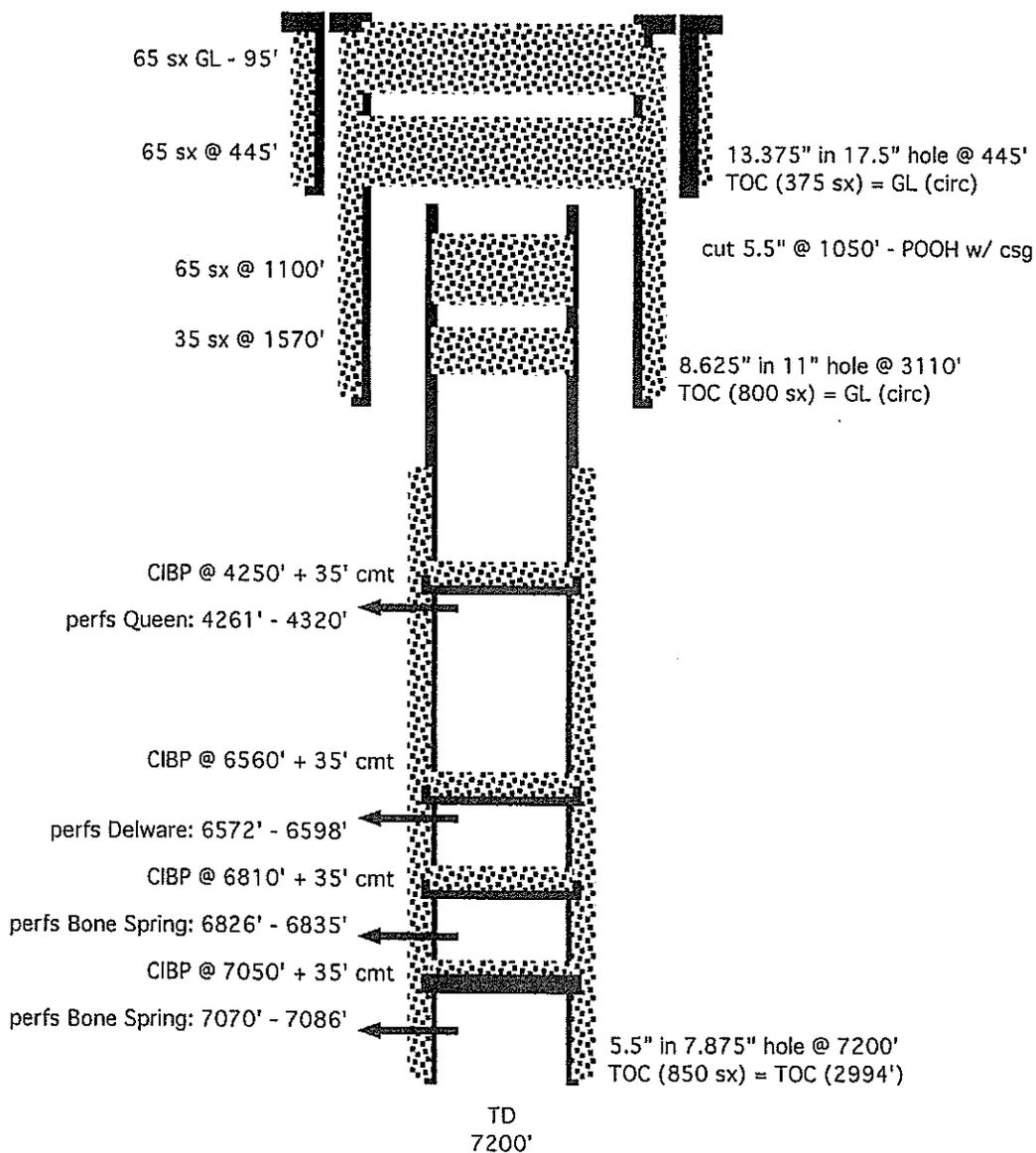


EXHIBIT G

Liberty 4 #3  
30-025-36164  
E-4-20s-36e  
spud 2-27-03  
P&A 7-3-03

(not to scale)



Paramaters in mg/l

API	Section	Township	Range	UL	Formation	TDS	Sodium	Calcium	Chloride	Bicarbonate	Sulfate
3002534310	1	19S	36E	N	Abo	54512	18351	2288	31939	627	2558
3002534778	11	19S	36E	P	Abo	84095	27214	5045	52487	530	2468
3002534191	12	19S	36E	C	Abo	57619	19539	2329	33819	597	2738
3002534470	12	19S	36E	D	Abo	56387	20462	1469	35220	689	26
3002503163	15	19S	35E	O	Artesia	311153			193100	564	747
3002503189	22	19S	35E	B	Artesia	302747			188000	215	1140
3002503212	27	19S	35E	J	Artesia	242504			150400	563	1492
3002503229	28	19S	35E	O	Artesia	240799			149200	352	711
3002503247	29	19S	35E	C	Artesia	250156			154900	65	1432
3002503247	29	19S	35E	C	Artesia	243283			151500	141	940
3002503244	29	19S	35E	F	Artesia	238283			148500	106	372
3002503244	29	19S	35E	F	Artesia	238553			148800	106	372
3002503248	29	19S	35E	J	Artesia	237684			149500	35	257
3002503241	29	19S	35E	K	Artesia	242263			152100	71	350
3002503241	29	19S	35E	K	Artesia	241833			151700	71	350
3002503242	29	19S	35E	P	Artesia	242146			151100	53	372
3002503284	33	19S	35E	C	Artesia	219950			138000	38	418
3002503304	34	19S	35E	I	Artesia	221538			137500	225	971
3002504023	20	19S	36E	K	Artesia	257353			158500	187	1108
3002504099	33	19S	36E	H	Artesia	68631			38110	405	4317
3002504113	34	19S	36E	O	Artesia	19393			8383	2050	2252
3002503315	3	20S	35E	E	Artesia	218754			135000	4	1700
3002503327	4	20S	35E	L	Artesia	149470			94150	164	1246
3002503361	25	20S	35E	A	Artesia	174035			106839	367	2726
3002504130	1	20S	36E	A	Artesia	13609			4934	615	3330
3002504152	1	20S	36E	N	Artesia	33835			17060	812	3691
3002504350	26	20S	36E	A	Artesia	79120			47790	1445	738
3002504350	26	20S	36E	A	Artesia	44140			26230	1461	93

EXHIBIT H

Parameters in mg/l

API	Section	Township	Range	UL	Formation	TDS	Sodium	Calcium	Chloride	Bicarbonate	Sulfate
3002504374	32	20S	36E	O	Artesia	177450					
3002503156	6	19S	35E	L	Bone Spring	25800			14100	830	1120
3002503156	6	19S	35E	L	Bone Spring	53622			30550	1123	2280
3002503156	6	19S	35E	L	Bone Spring	195200			118000	220	1030
3002520377	17	20S	35E	H	Bone Spring					7916	
3002520377	17	20S	35E	H	Devonian	44825					
3002504063	25	19S	36E	P	Grayburg		2394	601	4577	463	312
3002504063	25	19S	36E	P	Grayburg		2777	237	4799	592	352
3002504063	25	19S	36E	P	Grayburg		3035	482	5326	1065	352
3002504254	13	20S	36E	M	Grayburg		4368	520	7532	601	1375
3002504254	13	20S	36E	M	Grayburg	17249	4848	904	9595	1262	205
3002504053	25	19S	36E	N	Grayburg San Andres					5531	
3002504063	25	19S	36E	P	Grayburg San Andres					352	
3002504063	25	19S	36E	P	Grayburg San Andres					312	
3002504063	25	19S	36E	P	Grayburg San Andres					352	
3002521886	35	19S	36E	G	Grayburg San Andres					660	
3002512481	36	19S	36E	F	Grayburg San Andres					430	

Parameters in mg/l

API	Section	Township	Range	UL	Formation	TDS	Sodium	Calcium	Chloride	Bicarbonate	Sulfate
3002504139	1	20S	36E	D	Grayburg San Andres						
3002504151	1	20S	36E	M	Grayburg San Andres					2250	
3002504151	1	20S	36E	M	Grayburg San Andres					530	
3002504165	2	20S	36E	A	Grayburg San Andres	10905	2829	740	2350	1220	3700
3002504165	2	20S	36E	A	Grayburg San Andres	40497	12952	1680	20800	1390	3100
3002504165	2	20S	36E	A	Grayburg San Andres	71407	24177	2320	29800	810	3500
3002504165	2	20S	36E	A	Grayburg San Andres	27045	7815	1670	14500	1370	1020
3002504168	2	20S	36E	G	Grayburg San Andres					5710	
3002504224	11	20S	36E	F	Grayburg San Andres		1132	1	0	959	
3002504224	11	20S	36E	F	Grayburg San Andres		1089	0	0	922	
3002504235	12	20S	36E	C	Grayburg San Andres					55	
3002504259	13	20S	36E	I	Grayburg San Andres					177	
3002504259	13	20S	36E	I	Grayburg San Andres					125	

EXHIBIT H

Parameters in mg/l

API	Section	Township	Range	UL	Formation	TDS	Sodium	Calcium	Chloride	Bicarbonate	Sulfate
3002504254	13	20S	36E	M	Grayburg San Andres					205	
3002504254	13	20S	36E	M	Grayburg San Andres					1375	
3002504272	14	20S	36E	K	Grayburg San Andres					1618	
3002504272	14	20S	36E	K	Grayburg San Andres					1746	
3002504266	14	20S	36E	P	Grayburg San Andres		1113	0	0	932	
3002504297	23	20S	36E	B	Grayburg San Andres		612	1	0	1289	
3002504297	23	20S	36E	B	Grayburg San Andres		872	0	0	1094	
3002504297	23	20S	36E	B	Grayburg San Andres		602	1	0	1459	
3002504299	23	20S	36E	O	Grayburg San Andres		914	1	0	996	
3002504299	23	20S	36E	O	Grayburg San Andres		881	0	0	970	
3002503229	28	19S	35E	O	Penrose		69960	15974	149248	352	711
3002504350	26	20S	36E	A	Permo- Penn.					739	
3002503247	29	19S	35E	C	Queen		65212	19975	151575	141	940
3002503247	29	19S	35E	C	Queen		78188	8394	154968	65	1432
3002503248	29	19S	35E	J	Queen		64824	15418	149504	35	257

Paramaters in mg/l

API	Section	Township	Range	UL	Formation	TDS	Sodium	Calcium	Chloride	Bicarbonate	Sulfate
3002503284	33	19S	35E	C	Queen		59508	15080	138040	38	418
3002503307	35	19S	35E	G	San Andres	66415			39600	313	993
3002503307	35	19S	35E	G	San Andres	73409			43880	450	865
3002504099	33	19S	36E	H	San Andres		22745	2211	38119	405	4317
3002512476	36	19S	36E	J	San Andres			3454	16406	611	
3002512476	36	19S	36E	J	San Andres		4687	3454	16406	611	
3002512476	36	19S	36E	J	San Andres	26344					
3002504326	25	20S	36E	A	Yates		32533	107798	247872	1091	30984

EXHIBIT H



# Water Column/Average Depth to Water

EXHIBIT I

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are smallest to largest)

(meters)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column
L_15456	POD1	L	LE	SW	SW	SW	33	19S	36E	653151.0	3609259.5	●	1152	62	33	29
L_10248		L	LE		SW	NW	09	20S	36E	653376.0	3606958.0 *	●	1159	65		
L_01312		L	LE	SW	SW	SW	33	19S	36E	653237.0	3609276.0 *	●	1164	67	40	27
L_10245		L	LE	SW	SW	SW	33	19S	36E	653237.0	3609276.0 *	●	1164	75		
L_14757	POD1	L	LE	SE	SW	NW	09	20S	36E	653553.3	3606832.1	●	1313	62	34	28
L_14758	POD1	L	LE	NW	SW	NW	05	20S	36E	651908.7	3608655.2	●	1455	112	30	82
L_14752	POD1	L	LE	SW	NW	SW	03	20S	36E	654781.9	3607997.0	●	1527	72	36	36
L_10247		L	LE		SW	NW	05	20S	36E	651739.0	3608544.0 *	●	1580	75		
L_10246		L	LE	NW	NW	SW	03	20S	36E	654869.0	3608291.0 *	●	1619	60		
L_02707		L	LE	NE	NE	NE	09	20S	36E	654744.1	3607405.0	●	1644	85	38	47
L_01522	POD1	L	LE	NW	NW	NW	08	20S	36E	651658.0	3607434.0 *	●	1738	50	30	20
L_08083		L	LE			SW	32	19S	36E	651926.0	3609553.0 *	●	1963	50	35	15
L_00512	S	L	LE	SW	NE	SW	32	19S	36E	652020.0	3609660.0 *	●	1982	65	30	35
L_00512	POD3	L	LE	NE	NE	SW	32	19S	36E	652097.0	3609914.9	●	2144	60	30	30
L_15039	POD1	L	LE	NW	NE	SW	10	20S	36E	655302.6	3606705.1	●	2481	71	38	33
L_10249		L	LE		SW	NE	10	20S	36E	655790.0	3606997.0 *	●	2765	60		
L_02969		L	LE	SW	SW	SW	28	19S	36E	653209.0	3610891.0 *	●	2779	60	34	26
L_00011		L	LE	SW	NW	NW	32	19S	36E	651602.0	3610461.0 *	●	2874	42		
L_03114		L	LE				34	19S	36E	655553.0	3610005.0 *	●	2974	135		
L_10804		L	LE		SE	SE	34	19S	36E	656159.0	3609422.0 *	●	3182	66	50	16
L_10250		L	LE		SW	SE	10	20S	36E	655800.0	3606192.0 *	●	3184	60		

Average Depth to Water: **35 feet**

Minimum Depth: **30 feet**

Maximum Depth: **50 feet**



**Basin/County Search:**

County: LE

**UTM Filters (in meters):**

Easting: 653259

Northing: 3608112

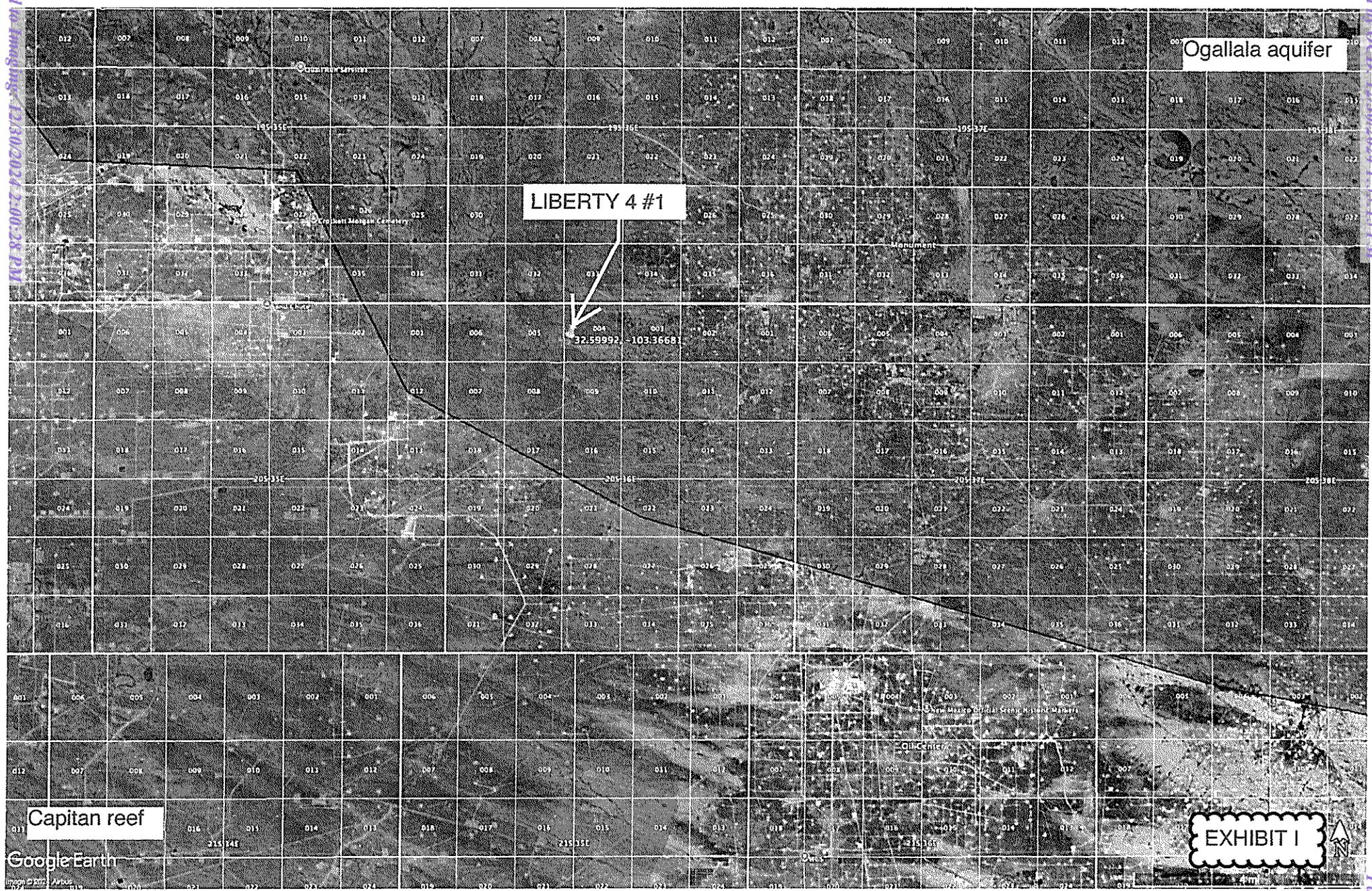
Radius: 003220

\* UTM location was derived from PLSS - see Help

---

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

---



Ogallala aquifer

LIBERTY 4 #1

32.59993, -103.3668

Capitan reef

EXHIBIT I

Google Earth

TOPO! map printed on 07/30/24 from "Untitled.tpo"

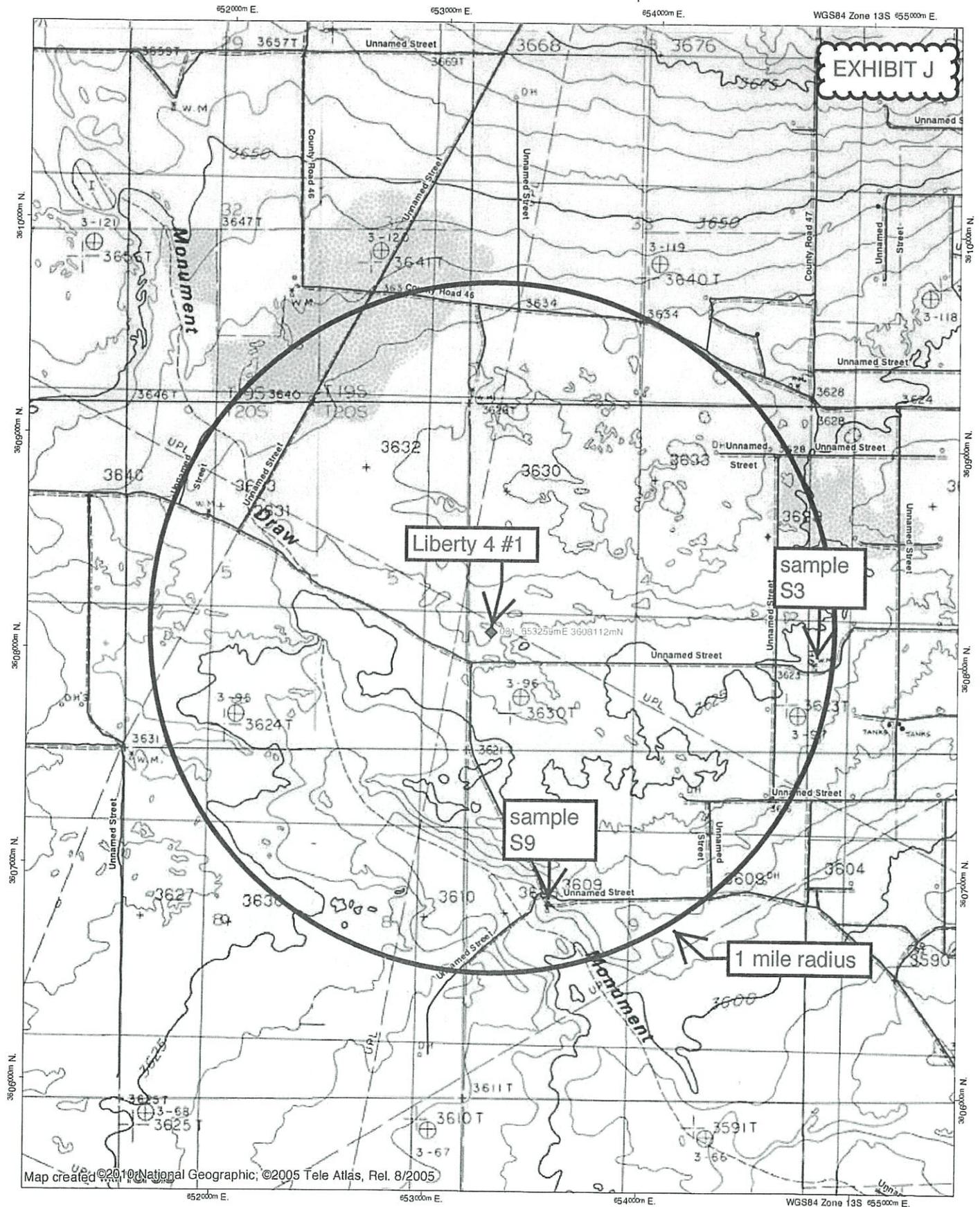
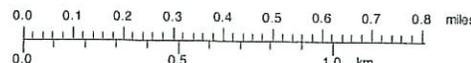


EXHIBIT J

Map created ©2010 National Geographic; ©2005 Tele Atlas, Rel. 8/2005



TN MN  
6°  
07/30/24



Environment Testing

EXHIBIT J

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Brian Wood  
Permits West Inc  
37 Verano Loop  
Santa Fe, New Mexico 87508

Generated 9/10/2024 12:47:36 PM

## JOB DESCRIPTION

3R Liberty

## JOB NUMBER

885-9520-1

Eurofins Albuquerque  
4901 Hawkins NE  
Albuquerque NM 87109

See page two for job notes and contact information



# Eurofins Albuquerque

EXHIBIT J

## Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated  
9/10/2024 12:47:36 PM

Authorized for release by  
Andy Freeman, Business Unit Manager  
[andy.freeman@et.eurofinsus.com](mailto:andy.freeman@et.eurofinsus.com)  
Designee for  
Cheyenne Cason, Project Manager  
[cheyenne.cason@et.eurofinsus.com](mailto:cheyenne.cason@et.eurofinsus.com)  
(505)345-3975

Client: Permits West Inc  
Project/Site: 3R Liberty

Laboratory Job ID: 885-9520-1



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## Definitions/Glossary

Client: Permits West Inc  
Project/Site: 3R Liberty

Job ID: 885-9520-1

**Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

EXHIBIT J

### Case Narrative

Client: Permits West Inc  
Project: 3R Liberty

Job ID: 885-9520-1

**Job ID: 885-9520-1**

**Eurofins Albuquerque**

Job Narrative  
885-9520-1



Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**

The samples were received on 8/8/2024 3:55 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 21.7°C.

**HPLC/IC**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

### Client Sample Results

Client: Permits West Inc  
Project/Site: 3R Liberty



Job ID: 885-9520-1

**Client Sample ID: S3**

**Lab Sample ID: 885-9520-1**

**Date Collected: 08/08/24 07:00**

**Matrix: Water**

**Date Received: 08/08/24 15:55**

**Method: EPA 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86		10	mg/L			08/29/24 09:31	20

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease) (1664B)	ND		4.9	mg/L			08/09/24 09:50	1
Total Dissolved Solids (SM 2540C)	5600		500	mg/L			08/09/24 15:06	1

Eurofins Albuquerque

### Client Sample Results

Client: Permits West Inc  
Project/Site: 3R Liberty



Job ID: 885-9520-1

**Client Sample ID: S9**

**Lab Sample ID: 885-9520-2**

Date Collected: 08/08/24 07:35

Matrix: Water

Date Received: 08/08/24 15:55

**Method: EPA 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	370		10	mg/L			08/29/24 09:56	20

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease) (1664B)	ND		4.9	mg/L			08/15/24 12:27	1
Total Dissolved Solids (SM 2540C)	1500		100	mg/L			08/09/24 15:06	1

Eurofins Albuquerque

### QC Sample Results

Client: Permits West Inc  
Project/Site: 3R Liberty



Job ID: 885-9520-1

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-11393/7 Matrix: Water Analysis Batch: 11393				Client Sample ID: Method Blank Prep Type: Total/NA				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/L			08/29/24 08:54	1

Lab Sample ID: MB 885-11393/85 Matrix: Water Analysis Batch: 11393				Client Sample ID: Method Blank Prep Type: Total/NA				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/L			08/30/24 01:33	1

Lab Sample ID: LCS 885-11393/8 Matrix: Water Analysis Batch: 11393				Client Sample ID: Lab Control Sample Prep Type: Total/NA				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	5.00	4.89		mg/L		98	90 - 110	

Lab Sample ID: LCS 885-11393/86 Matrix: Water Analysis Batch: 11393				Client Sample ID: Lab Control Sample Prep Type: Total/NA				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	5.00	4.80		mg/L		96	90 - 110	

Lab Sample ID: MRL 885-11393/6 Matrix: Water Analysis Batch: 11393				Client Sample ID: Lab Control Sample Prep Type: Total/NA				
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	0.500	0.509		mg/L		102	50 - 150	

#### Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 885-10354/1 Matrix: Water Analysis Batch: 10354				Client Sample ID: Method Blank Prep Type: Total/NA				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	mg/L			08/15/24 12:27	1

Lab Sample ID: LCS 885-10354/2 Matrix: Water Analysis Batch: 10354				Client Sample ID: Lab Control Sample Prep Type: Total/NA				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
HEM (Oil & Grease)	40.0	35.8		mg/L		90	78 - 114	

Eurofins Albuquerque

### QC Sample Results

Client: Permits West Inc  
Project/Site: 3R Liberty



Job ID: 885-9520-1

#### Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 885-10354/3  
Matrix: Water  
Analysis Batch: 10354

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM (Oil & Grease)	40.0	37.2		mg/L		93	78 - 114	4	20

Lab Sample ID: MB 885-9984/1  
Matrix: Water  
Analysis Batch: 9984

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	mg/L			08/09/24 09:50	1

Lab Sample ID: LCS 885-9984/2  
Matrix: Water  
Analysis Batch: 9984

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM (Oil & Grease)	40.0	37.2		mg/L		93	78 - 114

Lab Sample ID: LCSD 885-9984/3  
Matrix: Water  
Analysis Batch: 9984

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM (Oil & Grease)	40.0	37.2		mg/L		93	78 - 114	0	20

#### Method: 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 885-10020/1  
Matrix: Water  
Analysis Batch: 10020

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		50	mg/L			08/09/24 15:06	1

Lab Sample ID: LCS 885-10020/2  
Matrix: Water  
Analysis Batch: 10020

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1000		mg/L		100	80 - 120

Lab Sample ID: 885-9520-2 DU  
Matrix: Water  
Analysis Batch: 10020

Client Sample ID: S9  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1500		1540		mg/L		0.4	10

Eurofins Albuquerque

### QC Association Summary



Job ID: 885-9520-1

Client: Permits West Inc  
Project/Site: 3R Liberty

#### HPLC/IC

##### Analysis Batch: 11393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9520-1	S3	Total/NA	Water	300.0	
885-9520-2	S9	Total/NA	Water	300.0	
MB 885-11393/7	Method Blank	Total/NA	Water	300.0	
MB 885-11393/85	Method Blank	Total/NA	Water	300.0	
LCS 885-11393/8	Lab Control Sample	Total/NA	Water	300.0	
LCS 885-11393/86	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-11393/6	Lab Control Sample	Total/NA	Water	300.0	

#### General Chemistry

##### Analysis Batch: 9984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9520-1	S3	Total/NA	Water	1664B	
MB 885-9984/1	Method Blank	Total/NA	Water	1664B	
LCS 885-9984/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 885-9984/3	Lab Control Sample Dup	Total/NA	Water	1664B	

##### Analysis Batch: 10020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9520-1	S3	Total/NA	Water	2540C	
885-9520-2	S9	Total/NA	Water	2540C	
MB 885-10020/1	Method Blank	Total/NA	Water	2540C	
LCS 885-10020/2	Lab Control Sample	Total/NA	Water	2540C	
885-9520-2 DU	S9	Total/NA	Water	2540C	

##### Analysis Batch: 10354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-9520-2	S9	Total/NA	Water	1664B	
MB 885-10354/1	Method Blank	Total/NA	Water	1664B	
LCS 885-10354/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 885-10354/3	Lab Control Sample Dup	Total/NA	Water	1664B	

Eurofins Albuquerque

### Lab Chronicle

Client: Permits West Inc  
Project/Site: 3R Liberty



Job ID: 885-9520-1

**Client Sample ID: S3**

**Lab Sample ID: 885-9520-1**

Date Collected: 08/08/24 07:00

Matrix: Water

Date Received: 08/08/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	11393	KB	EET ALB	08/29/24 09:31
Total/NA	Analysis	1664B		1	9984	CO	EET ALB	08/09/24 09:50
Total/NA	Analysis	2540C		1	10020	ES	EET ALB	08/09/24 15:06

**Client Sample ID: S9**

**Lab Sample ID: 885-9520-2**

Date Collected: 08/08/24 07:35

Matrix: Water

Date Received: 08/08/24 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		20	11393	KB	EET ALB	08/29/24 09:56
Total/NA	Analysis	1664B		1	10354	KH	EET ALB	08/15/24 12:27
Total/NA	Analysis	2540C		1	10020	ES	EET ALB	08/09/24 15:06

**Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

### Accreditation/Certification Summary

Client: Permits West Inc  
Project/Site: 3R Liberty

Job ID: 885-9520-1

#### Laboratory: Eurofins Albuquerque



Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date																
New Mexico	State	NM9425, NM0901	02-26-25																
<p>The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.</p> <table border="1"> <thead> <tr> <th>Analysis Method</th> <th>Prep Method</th> <th>Matrix</th> <th>Analyte</th> </tr> </thead> <tbody> <tr> <td>1664B</td> <td></td> <td>Water</td> <td>HEM (Oil &amp; Grease)</td> </tr> <tr> <td>2540C</td> <td></td> <td>Water</td> <td>Total Dissolved Solids</td> </tr> <tr> <td>300.0</td> <td></td> <td>Water</td> <td>Chloride</td> </tr> </tbody> </table>				Analysis Method	Prep Method	Matrix	Analyte	1664B		Water	HEM (Oil & Grease)	2540C		Water	Total Dissolved Solids	300.0		Water	Chloride
Analysis Method	Prep Method	Matrix	Analyte																
1664B		Water	HEM (Oil & Grease)																
2540C		Water	Total Dissolved Solids																
300.0		Water	Chloride																
Oregon	NELAP	NM100001	02-26-25																

# Chain-of-Custody Record

Turn-Around Time:

Client: Permits West, Inc.

Standard  Rush

Mailing Address: 37 Verano Ln  
SF NM 87508

Project Name: 3R Liberty

Phone #: 505 466 8120

Project #: 4-1

email or Fax#: brian@permitswest.com

Project Manager: Brian Wood

QA/QC Package:  
 Standard  Level 4 (Full Validation)

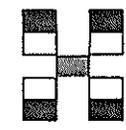
Sampler: BW

Accreditation:  Az Compliance  NELAC  Other

On Ice:  Yes  No

EDD (Type)

# of Coolers: 1  
Cooler Temp (including CF): 21.9 + 0.2 = 21.7 °C



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87105

Tel. 505-345-3975 Fax 505-345-3976



885-9520 COC

### Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Remarks	
8-8	7:00	Aq	S3															
8-8	7:35	Aq	S9															

Date: 8-8 Time: 3:55 Relinquished by: BW

Received by: [Signature] Via: CDO Date: 8-8-24 Time: 15:55

Remarks:

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Relinquished by: \_\_\_\_\_

Received by: \_\_\_\_\_ Via: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_



If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

### Login Sample Receipt Checklist



Client: Permits West Inc

Job Number: 885-9520-1

Login Number: 9520  
List Number: 1  
Creator: McQuiston, Steven

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler, indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	



NM Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

**Re: Geology Statement**  
**3R Operating, LLC**  
**Liberty 4 #1**  
**Section 4, T. 20S, R. 36E**  
**Lea County, New Mexico**

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Delaware injection zone and any underground sources of drinking water has been found. Please see the attached assessment for additional information.

Sincerely,

Cory Walk  
Geologist



**Seismic Risk Assessment**  
**3R Operating, LLC**  
**Liberty 4 No. 1**  
**Section 4, Township 20 South, Range 36 East**  
**Lea County, New Mexico**

**Cory Walk, M.S.**

A handwritten signature in cursive script that reads "Cory Walk".

**Geologist**

**Permits West Inc.**

**December 4, 2024**



## GENERAL INFORMATION

Liberty 4 #1 is located in the SW 1/4, section 4, T.20S, R.36E, about 6 miles southwest of Monument, NM in the Permian Basin. 3R Operating, LLC proposes to dispose produced water within the Delaware Mountain Group (Brushy Canyon Formation) through a perforated liner from 5,350'-6,300' below ground surface. This report assesses any potential concerns relating to induced seismicity along deep penetrating basement-rooted faults or the connection between the injection zone and known underground potable water sources.

## SEISMIC RISK ASSESSMENT

### *Historical Seismicity*

Searching the USGS and NMT earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed disposal site since 1970 (Fig. 1). The nearest earthquake above a magnitude 2.5 occurred on December 14, 2021, about 7.8 miles (12.5 km) southwest of the proposed SWD site and had a magnitude of 2.53.

### *Basement Faults and Subsurface Conditions*

A structure contour map (Fig. 1) of the Precambrian basement shows Liberty 4 #1 is approximately 0.4 miles (0.6 km) from the nearest basement-rooted fault interpreted by an unidentified oil and gas operator using proprietary 3D Seismic data and published by Horne et al (2021).

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico,  $S_{Hmax}$  is ~north-south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast-west-southwest in southern Lea County, New Mexico and the northernmost parts of Culberson and Reeves counties, Texas." **Around the Liberty 4 #1 site, Snee and Zoback indicate a  $S_{Hmax}$  direction of N060°E and an  $A_p$  of 0.65, indicating an extensional (normal) stress regime.**

Induced seismicity is a growing concern of deep SWD wells. Snee and Zoback (2018) show that due to its orientation, the nearest Precambrian fault has a low probability of slipping (Fig. 2). Also, the proposed injection zone is much shallower in the Delaware Mountain Group (Brushy Canyon Formation) and therefore would not affect the deep-rooted Precambrian faults. Seismic data shows that the deep-rooted Precambrian faults do not penetrate anything above the Bone Spring Formation.

## GROUNDWATER SOURCES

Three principal aquifers are used for potable groundwater in southern Lea County; these geologic units include the Triassic Santa Rosa formation, Tertiary Ogallala formation, and Quaternary alluvium. Nicholson and Clebsch (1961) state, "Potable ground water is not available below the Permian and Triassic unconformity but, because this boundary is not easily defined, the top of the Rustler anhydrite formation is regarded as the effective lower limit of 'potable' ground water." Around the Liberty 4 #1 well, the top of the Rustler Formation lies at an estimated depth of 1,584' bgs.



## **VERTICAL MIGRATION OF FLUIDS**

Well logs show a 180-200' thick impermeable limestone cap lies at the top of the Bone Spring Formation that would prevent injected water from migrating into producing Bone Spring zones and deep-rooted Precambrian faults below. OCD well records show the basement to be at a depth of approximately 13,524' (Top of Granite Wash) in this area. Therefore, the injection zone lies approximately 7,225' above the Precambrian basement and approximately 3,766' below the previously stated lower limit of potable water at the top of the Rustler formation.

## **CONCLUDING STATEMENTS**

After examination of publicly available geologic and engineering data, there is no evidence of open faults or any other hydrologic connection between the disposal zone and any subsurface potable water sources. The shallow injection zone and orientation of nearby faults also removes any major concern of inducing seismic activity.

EXHIBIT K

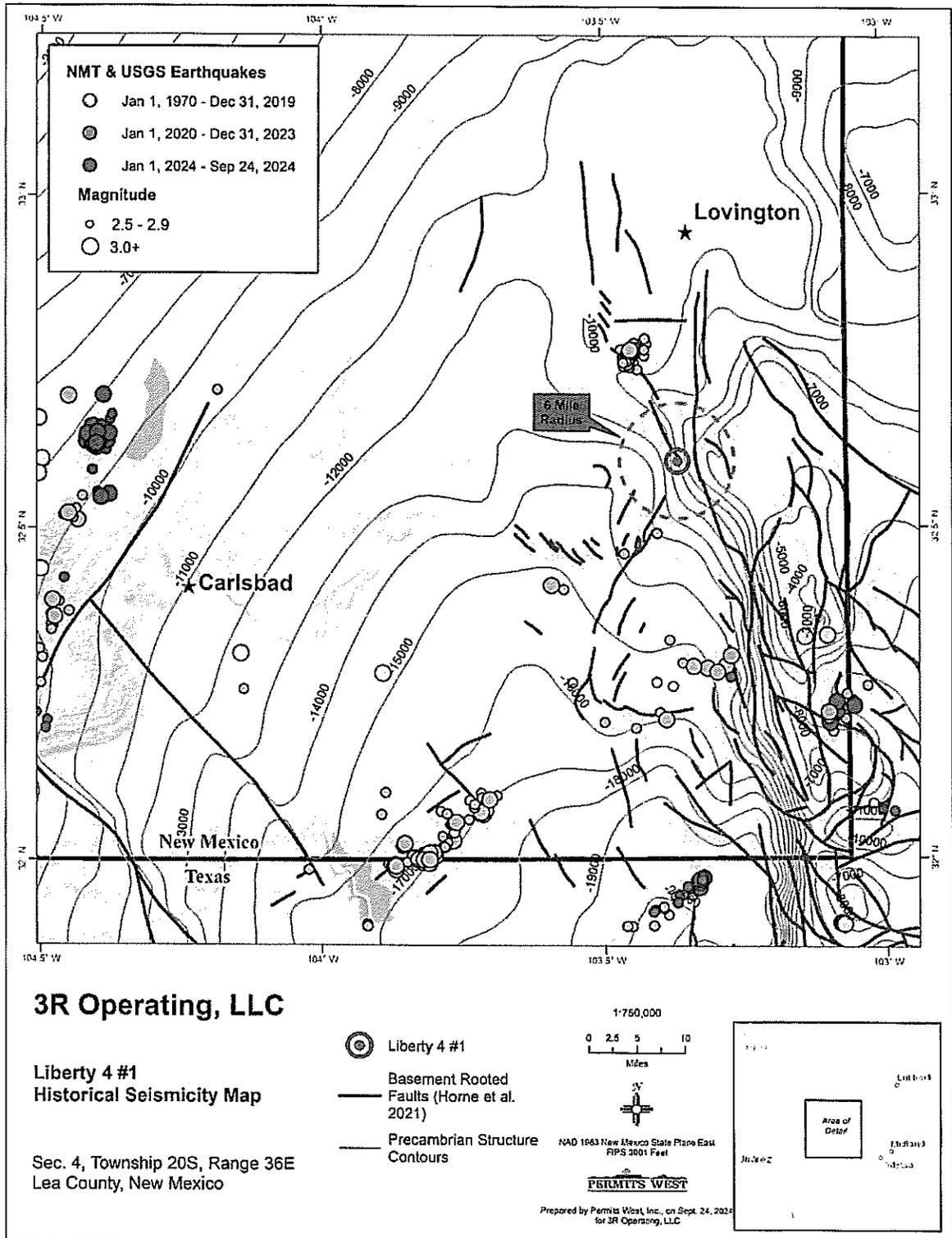


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Blue lines represent the locations of Precambrian basement-rooted faults (Horne et al., 2021). Liberty 4 #1 well lies ~0.4 miles southwest of the closest deeply penetrating fault and 7.8 miles north from the closest historic earthquake with a magnitude >2.5.

EXHIBIT K

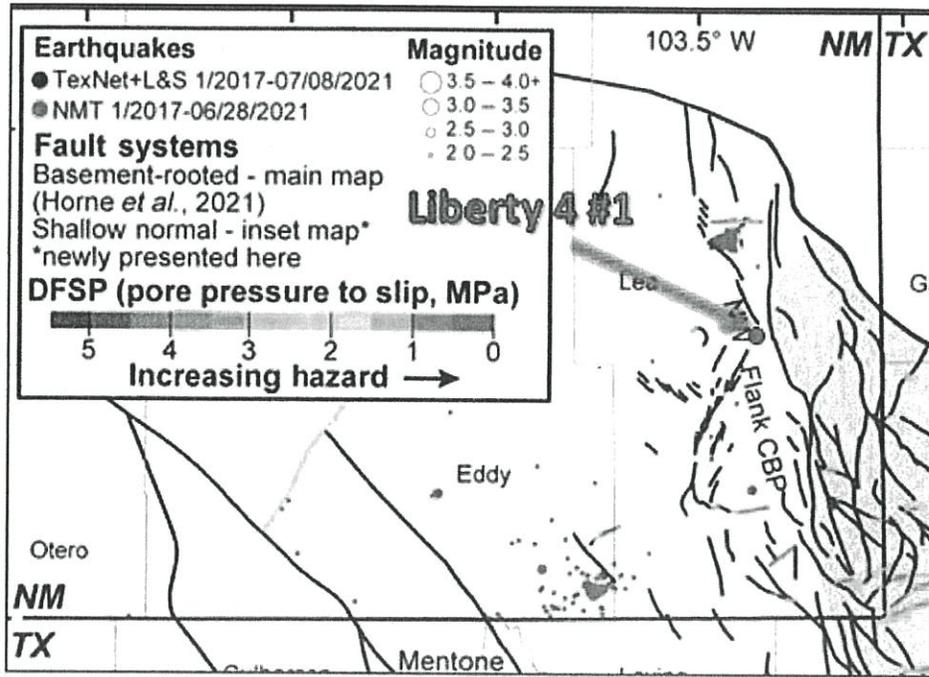


Figure 2. Modified from Hennings *et. al.* (2021) and shows an increased pore pressure to slip on the nearby faults which decreases the hazard potential. The proposed injection zone is shallower in the Delaware Mountain Group (Brushy Canyon Formation) and therefore removes any major concern of inducing seismicity on any known fault.



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# Affidavit of Publication



STATE OF NEW MEXICO  
COUNTY OF LEA

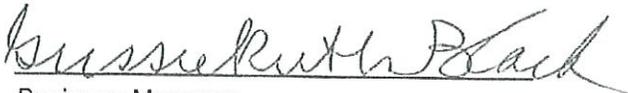
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated  
November 21, 2024  
and ending with the issue dated  
November 21, 2024.



  
\_\_\_\_\_  
Publisher

Sworn and subscribed to before me this  
21st day of November 2024.

  
\_\_\_\_\_  
Business Manager

My commission expires  
January 29, 2027

(Seal) STATE OF NEW MEXICO  
NOTARY PUBLIC  
GUSSIE RUTH BLACK  
COMMISSION # 1087526  
COMMISSION EXPIRES 01/29/2027

02108485

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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.

BRIAN WOOD  
PERMITS WEST  
37 VERANO LOOP  
SANTA FE, NM 87508



December 10, 2024

BLM  
620 E. Greene  
Carlsbad NM 88220

### TYPICAL NOTICE

3R Operating, LLC is applying (see attached application) to convert the Liberty 4 #1 gas well to a saltwater disposal well. As required by NM Oil Conservation Division (NMOCD) rules, I am notifying you of the following proposed saltwater disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Liberty 4 #1 (fee lease) TD = 13,630'  
Proposed Disposal Zone: Delaware (5,350' - 6,300')  
Location: 1800' FSL & 330' FWL Sec. 4, T. 20 S., R. 36 E., Lea County, NM  
Approximate Location: 6 air miles southwest of Monument, NM  
Applicant Name: 3R Operating, LLC (432) 684-7877  
Applicant's Address: 4000 N. Big Spring St., Suite 210, Midland, TX 79705

Submittal Information: Application for a saltwater disposal well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. NMOCD address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3441. Their e-mail address is: ocd.engineer@emnrd.nm.gov.

Please call me if you have any questions.

Sincerely,

Brian Wood



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

General Information  
Phone: (505) 629-6116

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

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

CONDITIONS

Action 415895

**CONDITIONS**

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 415895
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

**CONDITIONS**

Created By	Condition	Condition Date
stacy.sandoval	None	12/30/2024