

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

**APPLICATION OF AWR DISPOSAL, LLC  
TO APPROVE SALT WATER  
DISPOSAL WELL IN LEA  
COUNTY, NEW MEXICO.**

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

**APPLICATION**

AWR Disposal, LLC (“AWR”), OGRID No. 328805, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, AWR states as follows:

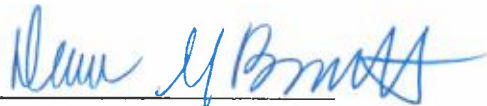
- (1) AWR proposes to drill the Rubys Lounge SWD #1 well at a surface location 1462 feet from the North line and 1196 feet from the East line of Section 16, Township 23 South, Range 35 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.
- (2) AWR seeks authority to inject salt water into the Devonian-Silurian formation at a depth of 15,668’ -17,359’.
- (3) AWR intends to use 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.
- (4) AWR anticipates using an average pressure of 2,350 psi for this well, and it requests that a maximum pressure of 3,133 psi be approved for the well.
- (5) A proposed C-108 for the subject well is attached hereto in Attachment A.

(6) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, AWR requests that this application be set for hearing before an Examiner of the Oil Conservation Division on April 2, 2020; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

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

By:   
Deana Bennett  
Post Office Box 2168  
500 Fourth Street NW, Suite 1000  
Albuquerque, New Mexico 87103-2168  
Telephone: 505.848.1800  
*Attorneys for Applicant*

**CASE NO. \_\_\_\_\_: Application of AWR Disposal, LLC for approval of salt water disposal well in Lea County, New Mexico.** Applicant seeks an order approving the Rubys Lounge SWD #1 well at a surface location 1462 feet from the North line and 1196 feet from the East line of Section 16, Township 23 South, Range 35 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well. Applicant seeks authority to inject salt water into the Devonian-Silurian formation at a depth of 15,668' -17,359'. Applicant requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said location is approximately 15.1 miles southwest 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

**Applicant:** AWR DISPOSAL LLC **OGRID Number:** 328805  
**Well Name:** RUBYS LOUNGE SWD #1 **API:** 1BD  
**Pool:** SWD, DEVONIAN-SILURIAN **Pool Code:** 97869

**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 (PRODUCTION 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

FOR OCD ONLY	
<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.

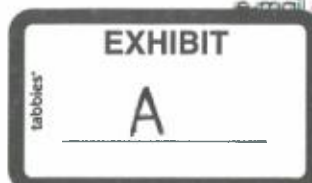
CHRIS WEYAND  
 Print or Type Name

Signature

02/18/2020  
 Date

512-600-1764  
 Phone Number

CHRIS@LONQUIST.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: AWR DISPOSAL, LLC

ADDRESS: 3300 N. A Street, Ste 220, Midland, Texas 79705

CONTACT PARTY: Chris Weyand (Agent)

PHONE: 512-600-1764

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: \_\_\_\_\_

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: Christopher B. Weyand

TITLE Consulting Engineer

SIGNATURE: 

DATE: 02/18/2020

E-MAIL ADDRESS: chris@lonquist.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.

INJECTION WELL DATA SHEET

OPERATOR: AWR DISPOSAL, LLC

WELL NAME & NUMBER: RUBYS LOUNGE SWD #1

WELL LOCATION: 1462' FNL & 1196' FEL      H      16      23S      35E  
FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 30.000"

Casing Size: 26.000"

Cemented with: 2,867 sx.

or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: Surface

Method Determined: Circulation

1<sup>st</sup> Intermediate Casing

Hole Size: 24.000"

Casing Size: 20.000"

Cemented with: 3,979 sx.

or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: Surface

Method Determined: Circulation

2<sup>st</sup> Intermediate Casing

Hole Size: 17.500"

Casing Size: 13.375"

Cemented with: 4,465 sx.

or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: Surface

Method Determined: Circulation

Production Casing

Hole Size: 12.250"

Casing Size: 9.625"

Cemented with: 3,129 sx.

or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: Surface

Method Determined: Circulation

Production Liner

Hole Size: 8.500"

Casing Size: 7.625"

Cemented with: 327 sx.

or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: 11,200'

Method Determined: Logged

Total Depth: 17,359'

Injection Interval

15,668 feet to 17,359 feet

(Open Hole)



**INJECTION WELL DATA SHEET**

Tubing Size: 7" 26 lb/ft, P-110, TCPC from 0' - 11,100' and 5.500", 17 lb/ft, P-110 TCPC from 11,100' - 15,628'  
Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

Packer Setting Depth: 15,628'

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

Additional Data

1. Is this a new well drilled for injection?                      X   Yes          No

If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Devonian, Silurian, Fusselman and Montoya (Top 100')

3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian

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. No, new drill

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

Delaware: 5,749'

Bone Spring: 9,031'

Atoka: 12,850'

## AWR Disposal, LLC

## Rubys Lounge SWD No. 1

## FORM C-108 Supplemental Information

## III. Well Data

## A. Wellbore Information

1.

Well information	
Lease Name	Rubys Lounge SWD
Well No.	1
Location	S-16 T-23S R-35E
Footage Location	1462' FNL & 1196' FEL

2.

## a. Wellbore Description

Casing Information					
Type	Surface	Intermediate 1	Intermediate 2	Production	Liner
OD	26"	20"	13.375"	9.625"	7.625"
WT	0.75"	0.635"	0.455"	0.435"	0.500"
ID	24.500"	18.730"	12.415"	8.755"	6.625"
Drift ID	24.500"	18.542"	12.259"	8.750"	6.500"
COD	26"	21.00"	14.375"	10.625"	7.625"
Weight	202 lb/ft	133 lb/ft	68 lb/ft	43.5 lb/ft	39 lb/ft
Grade	X56	K-55	HCL-80	HCP-110	P-110
Hole Size	30"	24"	17.5"	12.25"	8.5"
Depth Set	1,900'	4,150'	5,700'	11,700'	11,200' – 15,668'

## b. Cementing Program

Cement Information					
Casing String	Surface	Intermediate 1	Intermediate 2	Production	Liner
Lead Cement	Extendacem	Neocem	N/A	N/A, Neocem, Neocem	Neocem
Lead Cement Volume	1,017 sx	1,461	N/A	Stage 1: N/A Stage 2: 345 sx Stage 3: 883 sx	327
Tail Cement	Halcem	Halcem	Neocem	Versacem C, Halcem, Halcem	N/A
Tail Cement Volume	1,850 sx	2,518	Stage 1: 1,624 sx Stage 2: 2,841 sx	Stage 1: 897 sx Stage 2: 590 sx Stage 3: 413 sx	N/A
Cement Excess	75%	60%	60%	25%	35%
TOC	Surface	Surface	Surface	Surface	11,200'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

## 3. Tubing Description

Tubing Information		
<b>OD</b>	7"	5.5"
<b>WT</b>	0.362"	0.304"
<b>ID</b>	6.276"	4.892"
<b>Drift ID</b>	7.875"	6.050"
<b>COD</b>	6.151"	4.653"
<b>Weight</b>	26 lb/ft	17 lb/ft
<b>Grade</b>	P-110 TCPC	P-110 TCPC
<b>Depth Set</b>	0'-11,100'	11,100' -15,628'

Tubing will be lined with Duoline.

## 4. Packer Description

7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

## B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')
2. Gross Injection Interval: 15,668' – 17,359'

Completion Type: Open Hole

3. Drilled for injection.
4. See the attached wellbore schematic.
5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Delaware	5,749'
Bone Spring	9,031'
Atoka	12,850'

## VI. Area of Review

Within the 1-mile AOR, only the Sandwell AEQ State #1 (API No. 30-025-25661) well penetrates the proposed injection interval. As shown in the attached well records, the well (TD = 15,972') was drilled 358' into the Devonian (Top @ 15,614'). A plug (50 sx) was then spotted from 15,645' to 15,520' isolating the proposed injection zone from formations above. Another 50-sx-plug was spotted from 14,769' to 14,644'.

## VII. Proposed Operation Data

### 1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 40,000 BPD  
Maximum Volume: 50,000 BPD

### 2. Closed System

### 3. Anticipated Injection Pressure:

Average Injection Pressure: 2,350 PSI (surface pressure)  
Maximum Injection Pressure: 3,133 PSI (surface pressure)

### 4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Bone Spring and Wolfcamp formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Delaware, Bone Spring, Wolfcamp, and Atoka formations.

### 5. The disposal interval is non-productive. No water samples are available from the surrounding area.

## VIII. Geological Data

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

### A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler Anhydrite	1,764
Capitan	4,146
Capitan Reef	4,551
Lamar	5,687
Delaware	5,749
Bone Spring	9,031
Wolfcamp	11,614
Strawn	12,446
Atoka	12,850
Morrow	13,763
Barnett	14,759
Mississippian	15,030
Woodford	15,363
Devonian	15,618
Fusselman	16,663
Montoya	17,259

### B. Underground Sources of Drinking Water

Two water well exists within one mile of the proposed well location. One of these wells is reported to have a total depth of 875 ft with depth to water not being reported. The other well does not have depths reported. Water wells in the surrounding area have an average total depth of 593 ft and an average depth to water of 188 ft generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected. The Capitan reef and corresponding aquifer has been identified as a protectable water source, so an additional casing string will be set in the well.

IX. Proposed Stimulation Program

Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

There are two water wells that exist within one mile of the proposed well location. If a sample can be obtained, analysis results will be provided as soon as possible. A map showing the two water wells and Water Right Summary from the New Mexico Office of the State Engineer for water well CP 00568 are attached.

XII. Affirmative Statement of Examination of Geologic and Engineering Data

Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed Ruby's Lounge SWD #1) and any underground sources of drinking water.

NAME: Herb Wacker

TITLE: Geologist

SIGNATURE: Herb Wacker  
TBPG #4517

DATE: Nov. 1, 2019



AWR Disposal LLC		Rubys Lounge SWD		Location - Sec 16, Twp 23S, R 35E		TD	17,359	Directions to Site - From Jal Travel along W 20.4miles on NM 128 - Turn Right (N) on Delaware Basin Road and travel 14.9miles. Turn Right (SE) and travel 1.8miles to location. Lat/Long: 32.307257 - 103.9678945	
Lea County NM		Vertical Injection - Devonian, Silurian, Fusselman		Drilling and Complete	\$11,896,289	AFE #	GL/KB	3,505	
Geologic Tops (MD ft)		Section Objectives		Drilling Problems	Drilling Fluid	Logging	Casing	Cement (HOLD)	Injection String
Rustler	1764	Surface - to Isolate the Aquifers Drill 30" Hole to 1900' Set and Cement 26" Casing	Loss Circulation Hole Cleaning Wellbore stability in the Red Beds Anhydrite in the Rustler	Spud Mud MW< 9.0	No Logs. MWD	1900' of 26", 202pp, X56 pipe (conn tbd) Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket at 200'	Lead - sx 1017of HES Extenda Cem, 13.7ppg, 4.5hrs TT Tail - 1850sx of Halcem 3hr TT 75% Excess 1000psi CSD after 10hrs		
Surface TD -	1900								
Base of Salt	4100	1st Intermediate to Isolate the Salt - Drill 2250' of 24" Hole 1900' - 4150' Set and Cement 20" Casing	Anhydrite Salt Sections	Saturated Brine	MWD GR Mudlogger on site by 2000'	SM A Section Casing Bowl 4150' of 133# K55 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Lead - 1461 sx of Neocem 12.9ppg, 5hr TT Tail - 2518sx of Halcem, 14.8ppg 60% Excess 1000psi CSD after 10 hrs Cement to Surface		
Capitan	4146								
1st Int TD	4150	2nd Intermediate - to Isolate the Capitan Reef Drill 1550' of 17-1/2" Hole 4150' - 5700" Set and Cement 13-3/8" Casing in 2 Stages	Losses	Fresh water Gel Polymer	MWD GR, Triple Combo and CBL of 20" casing	5700' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing. <b>Stage tool positioned 100' below base of salt</b>	Stage 2 2841sx Neocem 13.7ppg, 0% Excess. Cement to Surface Stage 1 1624 sx Neocem 13.7ppg 60% Excess. 1000psi CSD after 10hrs	11100' of 7" P110 26# TCPC	
ECP DV Tool -	4200								
Capitan Reef	4551	3rd Intermediate - to Isolate the DMG Drill 6000' of 12-1/4" Hole 5200' - 11,100' Set and Cement 9-5/8" Casing and Cement in 3 stages	Hard Drilling in the Brushy Canyon Seepage to Complete Loss Water Flows Some Anhydrite H2S possible Production in the Bone Spring and Wolfcamp Ballooning is possible in Cherry Canyon and Brushy if Broken Down	8.5 ppg OBM High Vis Sweeps UBD/MPD Drilling Choke	MWD GR Triple combo + CBL of 13-3/8" Casing	10M B Section 11,700' of 9-5/8" 43.5# HCP110 BTC <b>Special Drift to 8.75" Externally Coat Between DV Tools</b> DV tool at at 9000' ECP DV Tool 50' below Previous Casing Shoe Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	Stage 3: 0% Excess Lead sx 883 sx Neocem 12.9 ppg Tail 413sx Halcem 14.8ppg 1000psi CSD after 10 hrs Cement to Surface Stage 2: 25% Excess Lead 590sx Neocem 12.9 ppg Tail 345sx Halcem 14.8ppg 1000psi CSD after 10 hrs Stage 1: 25% Excess Tail 897sx Halcem 14.8ppg. 1000psi CSD after 10hrs	Duoline Internally Coated Injection Tubing	
Lamar	5687								
2nd Int TD -	5700	4th Intermediate Liner - to Isolate the Atoka Drill 3968' of 8-1/2" Hole 11,700' - 15,668' Set 7-5/8" Liner and Cement in Single Stage	High Pressure (up to 15ppg) and wellbore instability (fracturing) expected in the Atoka 150 target radius Hard Drilling in the Morrow Clastic	12.5 ppg OBM UBD/MPD Drilling Choke	MWD GR Triple combo, CBL of 9-5/8" Casing	4469' of 7-5/8" 39# P110 <b>USS Liberty FJM (Gas Tight) VersaFlex Packer Hanger</b> Centralizers on and 1 jt above shoe jt and then every 2nd jt.	Single Slurry 327 sxNeocem 13.7ppg, 35% Excess. 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Incone! 925 trim	
ECP DV Tool -	5750								
Cherry Canyon -	6339	Injection Interval Drill 1691' of 6-1/2" hole 15668' - 17,359'	Chert is possible Loss of Circulation is expected H2S encountered on the Striker 3 well BHT estimated at 280F	Brine Water - possible flows	MWD GR Triple Combo with FMI, CBL of 7-5/8" Liner	Openhole completion	Displace wellbore with Clean Brine after running Injection String		
Brushy Canyon -	7566								
DV Tool -	9000	Devonian - 15,618 Fusselman - 16663 Montoya - 17,259' TD - 17,359'							
Bone Spring -	9031								
3rd Int Liner Top -	11,200								
Wolfcamp -	11614								
2nd Int TD -	11,700								
Strawn -	12446								
Atoka -	12850								
Morrow -	13763								
Miss Lst -	15030								
Woodford -	15363								
Perm Packer -	15,628								
3rd Int TD -	15,668								

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
611 S. First St., Artesia, NM 86210  
Phone: (575) 748-1283 Fax: (575) 748-0720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-101  
Revised July 18, 2012

AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address AWR DISPOSAL, LLC 3300 N. A Street Ste 220 Midland, Texas 79705		<sup>2</sup> OGRID Number 328805
		<sup>3</sup> API Number TBD
<sup>4</sup> Property Code	<sup>5</sup> Property Name Rubys Lounge SWD	<sup>6</sup> Well No. 1

**<sup>7</sup> Surface Location**

U.I. - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
H	16	23S	35E	N A	1462	NORTH	1196'	EAST	LEA

**<sup>8</sup> Proposed Bottom Hole Location**

U.I. - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
-	-	-	-	-	-	-	-	-	-

**<sup>9</sup> Pool Information**

Pool Name SWD, DEVONIAN-SILURIAN	Pool Code 97869
-------------------------------------	--------------------

**Additional Well Information**

<sup>11</sup> Work Type N	<sup>12</sup> Well Type SWD	<sup>13</sup> Cable Rotary R	<sup>14</sup> Lease Type Private	<sup>15</sup> Ground Level Elevation 3,505'
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 17,350'	<sup>18</sup> Formation Devonian-Silurian	<sup>19</sup> Contractor TBD	<sup>20</sup> Spud Date ASAP
Depth to Ground water 188'	Distance from nearest fresh water well 3,855'		Distance to nearest surface water 1 mile	

We will be using a closed-loop system in lieu of lined pits

**<sup>21</sup> Proposed Casing and Cement Program**

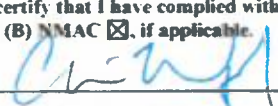
Type	Hole Size	Casing Size	Casing Weight ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	30"	26"	202 lb ft	1,900'	2,867	Surface
Intermediate 1	24"	20"	133 lb ft	4,150'	3,979	Surface
Intermediate 2	17.5"	13.375"	68 lb ft	5,700'	4,465	Surface
Production	12.25"	9.625"	43.5 lb ft	11,700'	3,129	Surface
Prod. Liner	8.5"	7.625"	39 lb ft	11,200' - 15,668'	327	11,200'

**Casing/Cement Program: Additional Comments**

See attached schematic

**<sup>22</sup> Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic Blinds, Pipe	10,000 psi	8,000 psi	TBD - Schaffer-Cameron

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature:  Printed name: Christopher B. Weyand Title: Consulting Engineer E-mail Address: <a href="mailto:chris@lonquist.com">chris@lonquist.com</a> Date: 02/18/2020   Phone: (512) 600-1764	<b>OIL CONSERVATION DIVISION</b>	
	Approved By:	
	Title:	
	Approved Date:	Expiration Date:
	Conditions of Approval Attached	

District I  
1625 N French Dr. Hobbs, NM 88240  
Phone (575) 393-6161 Fax (575) 393-0720  
District II  
811 S First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone (505) 334-6178 Fax (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3460 Fax (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources  
Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

FORM C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code 97869	Pool Name SWD; DEVONIAN-SILURIAN
Property Code	Property Name RUBYS LOUNGE SWD		Well Number 1
OGRID No. 328805	Operator Name AWR DISPOSAL, LLC		Elevation 3505'

<sup>10</sup>Surface Location

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	16	23-S	35-E	-	1462'	NORTH	1196'	EAST	LEA

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

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

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

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

X=840795.87  
Y=478547.85

**17 OPERATOR CERTIFICATION**

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

*Chris Weyand* 02/18/2020  
Signature Date

Chris Weyand  
Printed Name

chris@lonquist.com  
E-mail Address

**18 SURVEYOR CERTIFICATION**

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

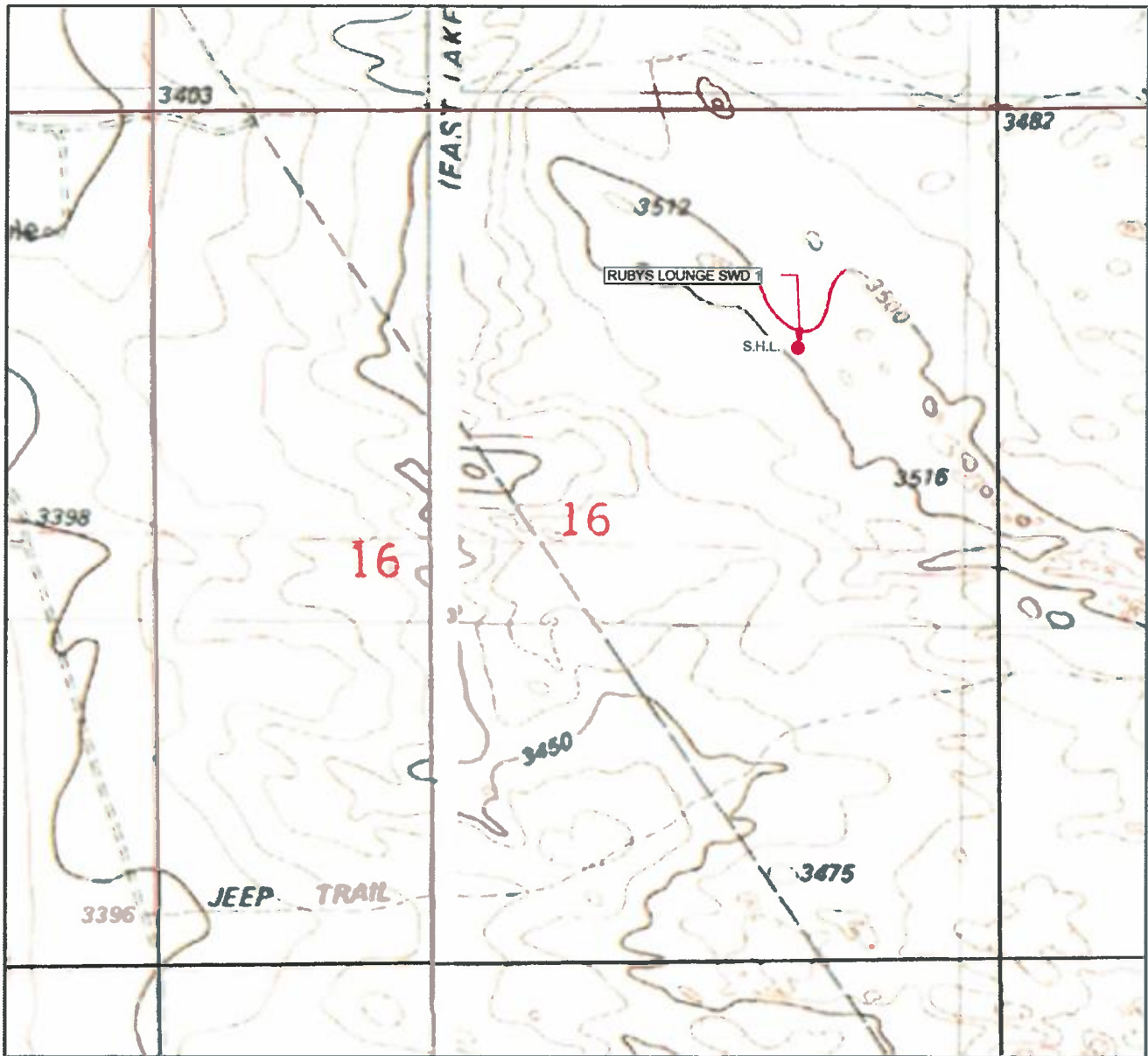
09/17/2019  
Date of Survey

*M. Carmi*  
Signature and Seal of Participant, Surveyor

11401  
REGISTERED PROFESSIONAL SURVEYOR

M. Carmi  
Certificate Number

### LOCATION & ELEVATION VERIFICATION MAP



### AWR DISPOSAL, LLC

LEASE NAME & WELL NO.: RUBYS LOUNGE SWD 1

SECTION 16 TWP 23-S RGE 35-E SURVEY N.M.P.M.  
 COUNTY LEA STATE NM ELEVATION 3505'  
 DESCRIPTION 1462' FNL & 1196' FEL

LATITUDE N 32.3078670 LONGITUDE W 103.3678945



SCALE: 1" = 1000'  
 0' 500' 1000'

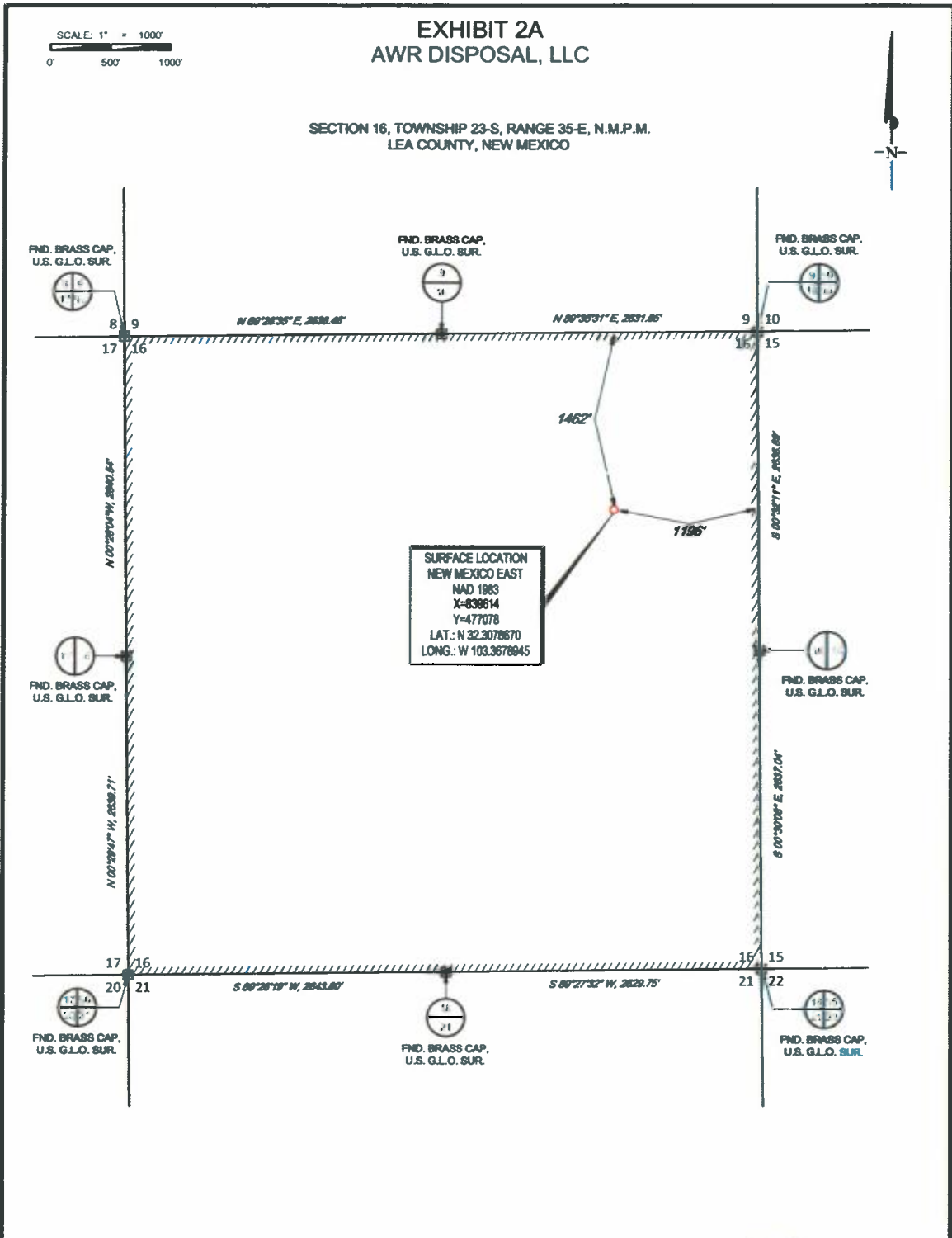
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY ACCELERATED WATER RESOURCES, LP. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



1400 EVERMAN PARKWAY, Ste. 146 - FT. WORTH, TEXAS 76140  
 TELEPHONE: (817) 744-7512 - FAX (817) 744-7554  
 2903 NORTH BIG SPRING - MIDLAND, TEXAS 79705  
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 - FAX (432) 682-1743  
 WWW.TOPOGRAPHIC.COM





SURFACE LOCATION  
 NEW MEXICO EAST  
 NAD 1983  
 X=638614  
 Y=477078  
 LAT.: N 32.3078670  
 LONG.: W 103.3678945

LEASE NAME & WELL NO.: RUBYS LOUNGE SWD 1

SECTION 16 TWP 23-S RGE 35-E SURVEY N.M.P.M.  
 COUNTY LEA STATE NM  
 DESCRIPTION 1462' FNL & 1196' FEL

DISTANCE & DIRECTION  
 FROM INT. OF NM-128 & DELAWARE BASIN RD., GO NORTH ON DELAWARE  
 BASIN RD. ±14.4 MILES, THENCE GO EAST (RIGHT) ON LEASE RD. ±3.3 MILES,  
 TO A POINT ±4810 FEET NORTHEAST OF THE LOCATION.

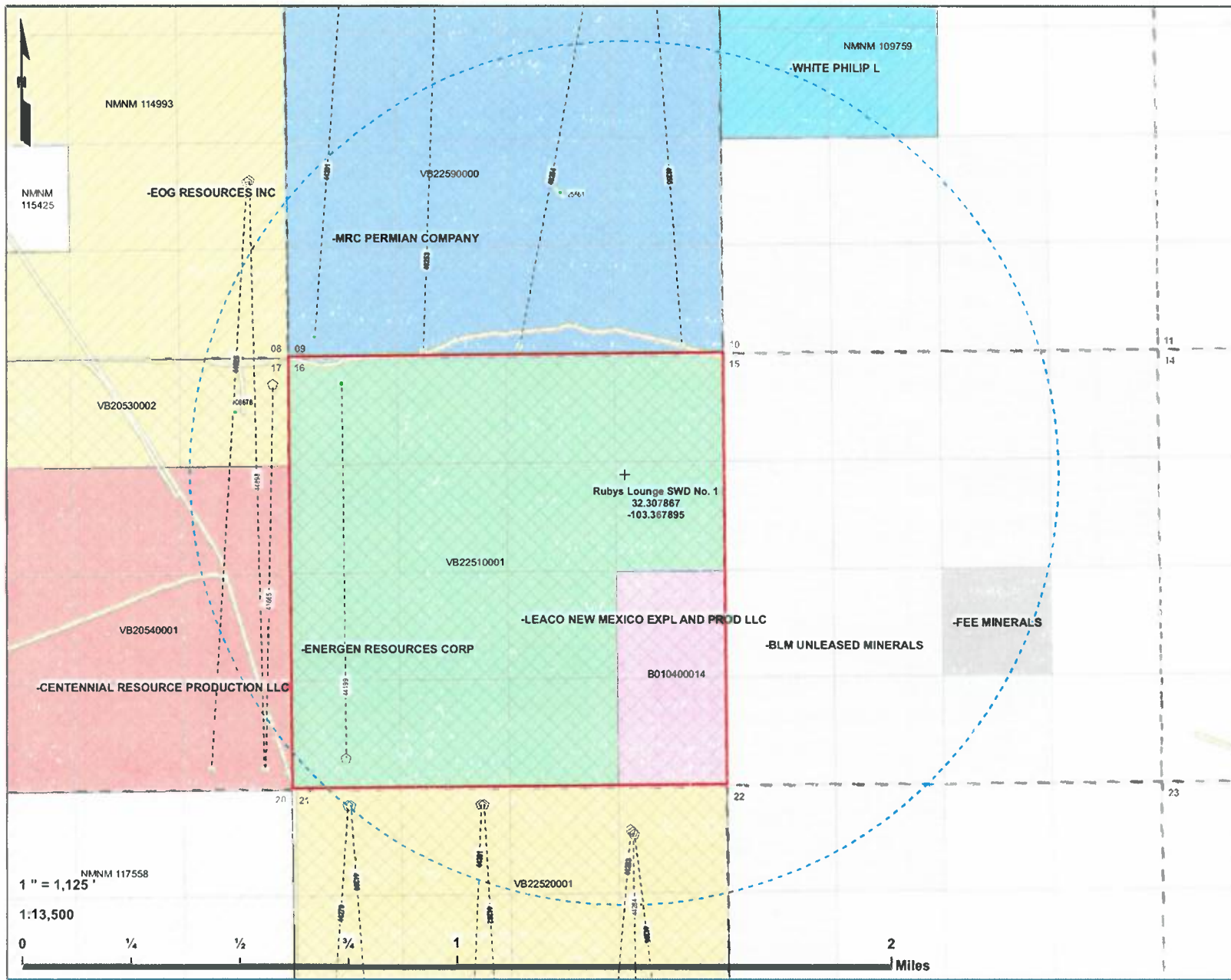
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED  
 UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, SABB ZONE, U.S. SURVEY FEET

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND  
 UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOLDED AT THE TIME OF  
 SURVEY, AND DATA PROVIDED BY ACCREDITED WATER RESOURCES, LP. THIS CERTIFICATION IS  
 MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS  
 NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



John Trevor Carnegie, P.S. No. 11401  
 SEPTEMBER 17 2019

**TOPOGRAPHIC**  
 LOYALTY · INNOVATION · LEGACY  
 1400 EVERMAN PARKWAY, Ste 146 • FT. WORTH, TEXAS 76140  
 TELEPHONE: (817) 744-7512 • FAX: (817) 744-7554  
 2303 NORTH 603 SPRINGS • BEE DAND, TEXAS 78025  
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX: (432) 682-1743  
 WWW.TOPOGRAPHIC.COM



### Rubys Lounge SWD No. 1 1 Mile Offset Lessees NGL Water Solutions Lea County, NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)  
 Drawn by: SJL | Date: 2/18/2020 | Approved by: CIW

**LOGGIST & CO. LLC**  
 ENERGY SERVICES  
 10000 N. MESA LANE, SUITE 100, ALBUQUERQUE, NM 87112  
 (505) 263-1000

- + Rubys Lounge SWD No. 1
- 1 Mile Radius
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (T23S R35E)
- Surface Owner (LIMESTONE BASIN PROP RANCH LLC)
- NM - BLM (O&G Leases)
- NM - SLO (O&G Leases)
- Laterals

**API (30-025-...) SHL Status - Type (Count)**

- Horizontal Surface Location (15)
- Plugged (Site Released) - Oil (2)

**API (30-025-...) BHL Status - Type (Count)**

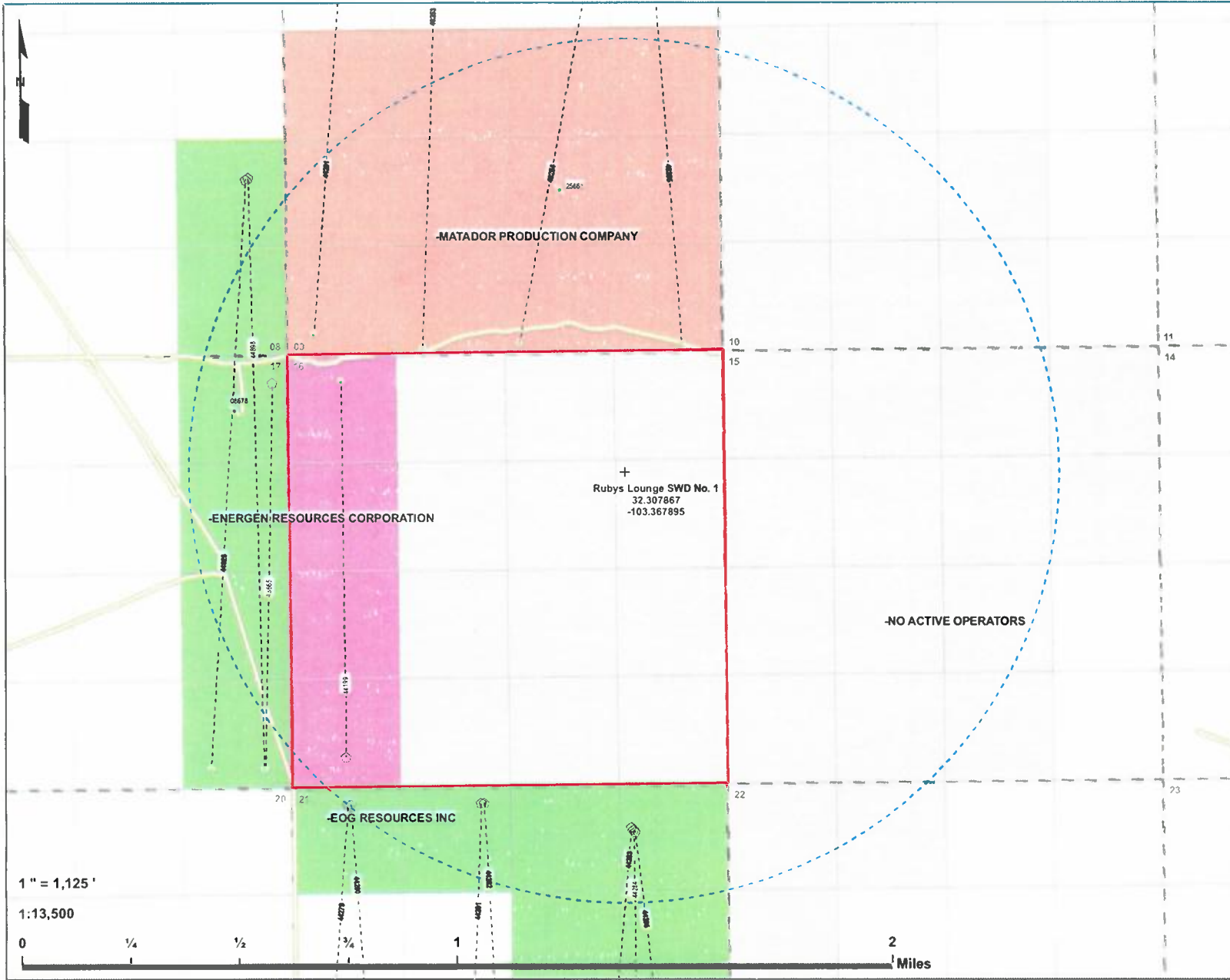
- Active - Oil (7)
- Permitted - Oil (8)

**Lessees**

- CENTENNIAL RESOURCE PRODUCTION LLC
- ENERGEN RESOURCES CORP
- EOG RESOURCES INC
- LEACO NEW MEXICO EXPLAND PROD LLC
- MRC PERMIAN COMPANY
- WHITE PHILIP L
- FEE MINERALS
- BLM UNLEASED MINERALS

\*Well Data Source: NM-OCD, DrillingInfo (2020)

The inset map shows the state of New Mexico with county boundaries. A red square indicates the location of the well in Lea County, near the Texas border. Surrounding counties shown include Eddy, Lea, and Gains. Major highways 82, 132, 180, and 285 are marked. Neighboring states Texas and Oklahoma are also labeled.



**Rubys Lounge SWD No. 1**  
**1 Mile Offset Operators**  
 NGL Water Solutions  
 Lea County, NM

PCS. NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)  
 Drawn by: SJL Date: 2/18/2020 Approved by: CBW

**LONQUIST & CO LLC**  
 ENGINEERS ENERGY ADVISORS

+ Rubys Lounge SWD No. 1

○ 1 Mile Radius

□ QQ-Section (NM-PLSS 2nd Div.)

□ Section (NM-PLSS 1st Div.)

□ Township/Range (T23S R35E)

□ Surface Owner (LIMESTONE BASIN PROP RANCH LLC)

--- Laterals

API (30-025-...) SHL Status - Type (Count)  
 ○ Horizontal Surface Location (15)  
 ● Plugged (Site Released) - Oil (2)

API (30-025-...) BHL Status - Type (Count)  
 ● Active - Oil (7)  
 ● Permitted - Oil (8)

**Operators**  
 ■ ENERGEN RESOURCES CORPORATION  
 ■ EOG RESOURCES INC  
 ■ MATADOR PRODUCTION COMPANY  
 ■ NO ACTIVE OPERATORS

Well Data Source: NM-OCD, DrillingInfo (2020)

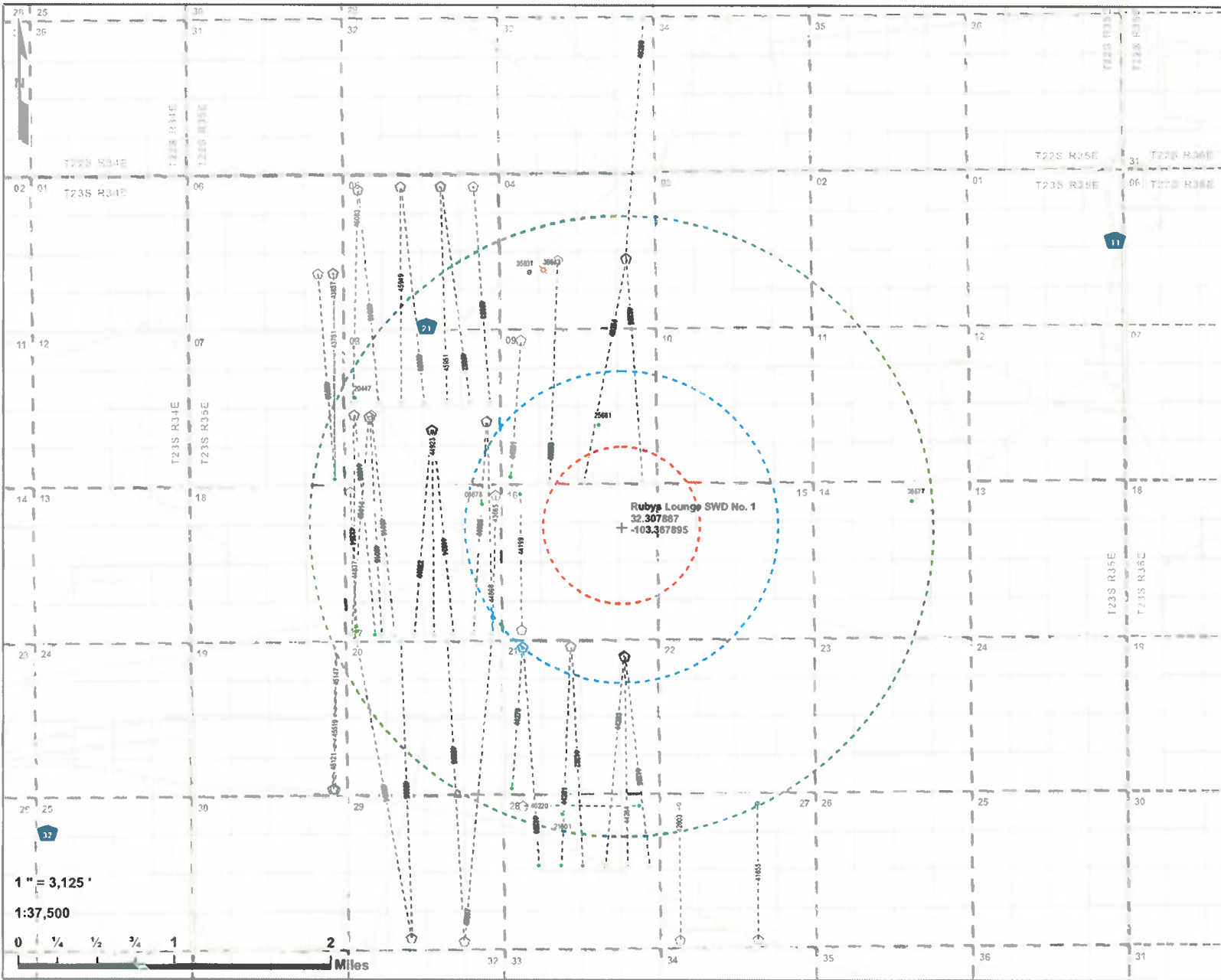


Rubys Lounge SWD No 1  
1 Mile Area of Review List

API (30-025-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	SPUD DATE	FIELD
08678	STATE-HENRY #001-17	O	P	MURPHY CORPORATION	4500	32.3100510	-103.3831558	2/27/1957	WILDCAT
25661	SANDWELL AEQ STATE #001	O	P	EOG Y RESOURCES, INC.	15972	32.3173103	-103.3703232	10/5/1977	[52769] ROCK LAKE, BONE SPRING, SOUTH
43665	WICKED 17 STATE COM #301H	O	A	EOG RESOURCES INC	9918	32.3109926	-103.3816781	4/9/2017	[2205] ANTELOPE RIDGE, BONE SPRING, NORTH
44199	PEGASUS 23 35 16 STATE #251H	O	A	ENERGEN RESOURCES CORPORATION	9874	32.2984330	-103.3789400	2/13/2018	[98246] WC-025 G-06 S233516M, MIDDLE BONE SP
44201	MARLAN DOWNEY 9 23 35 AR STATE #111H	O	A	MATADOR PRODUCTION COMPANY	9915	32.3254929	-103.3787458	12/31/2017	[52769] ROCK LAKE, BONE SPRING, SOUTH
44279	HUNTER 21 STATE #601H	O	A	EOG RESOURCES INC	11636	32.2968246	-103.3788906	2/14/2018	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44280	HUNTER 21 STATE COM #602H	O	A	EOG RESOURCES INC	11633	32.2968247	-103.3787838	2/17/2018	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44281	HUNTER 21 STATE COM #603H	O	A	EOG RESOURCES INC	11641	32.2968289	-103.3736482	2/3/2018	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44282	HUNTER 21 STATE COM #604H	O	A	EOG RESOURCES INC	11615	32.2968290	-103.3735414	3/3/2018	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44283	HUNTER 21 STATE COM #605H	O	N	EOG RESOURCES INC	0	32.2964741	-103.3699354	-	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44284	HUNTER 21 STATE COM #606H	O	N	EOG RESOURCES INC	0	32.2958719	-103.3676910	-	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44285	HUNTER 21 STATE COM #607H	O	N	EOG RESOURCES INC	0	32.2957963	-103.3676319	-	[97958] WC-025 G-08 S233528D, LWR BONE SPRIN
44898	FUNKY MONKS 8 FEDERAL COM #608H	O	N	EOG RESOURCES INC	0	32.3178609	-103.3825336	-	[2205] ANTELOPE RIDGE, BONE SPRING, NORTH
44925	FUNKY MONKS 8 FEDERAL COM #607H	O	N	EOG RESOURCES INC	0	32.3178106	-103.3826227	-	[2205] ANTELOPE RIDGE, BONE SPRING, NORTH
46253	MARLAN DOWNEY 4 9 235 35E STATE COM #112H	O	N	MATADOR PRODUCTION COMPANY	0	32.3329371	-103.3746826	-	[52769] ROCK LAKE, BONE SPRING, SOUTH
46254	MARLAN DOWNEY 4 9 235 35E STATE COM #113H	O	N	MATADOR PRODUCTION COMPANY	0	32.3329429	-103.3671384	-	[52769] ROCK LAKE, BONE SPRING, SOUTH
46255	MARLAN DOWNEY 4 9 235 35E STATE COM #114H	O	N	MATADOR PRODUCTION COMPANY	0	32.3330254	-103.3671385	-	[52769] ROCK LAKE, BONE SPRING, SOUTH

Rubys Lounge SWD No. 1  
1 Mile Offset Operators and Lessees List

S/T/R	QQ UNIT LETTER(S)	OPERATOR	MINERAL LESSEE	MINERAL OWNER	SURFACE OWNER	ADDRESS 1	ADDRESS 2
8/23S/35E	I P	EOG RESOURCES INC	-	-	-	PO BOX 2267	MIDLAND, TX 79702
9/23S/35E	E F G H I J K L M N O P	MATADOR PRODUCTION COMPANY	-	-	-	ONE LINCOLN CENTRE 5400 LBJ FREEWAY STE 1500	DALLAS, TX 75240
10/23S/35E	E F	-	WHITE PHILIP L	-	-	PO BOX 25968	ALBUQUERQUE, NM 87125
	J K L M N O	-	-	BUREAU OF LAND MANAGEMENT	-	301 DINOSAUR TRAIL	SANTA FE, NM 87508
15/23S/35E	A B C D E F G H K L M N O	-	-	BUREAU OF LAND MANAGEMENT	-	301 DINOSAUR TRAIL	SANTA FE, NM 87508
	J	-	-	PRIVATE	-	-	-
16/23S/35E	D E L M	ENERGEN RESOURCES CORPORATION	-	-	-	3510 N A ST	MIDLAND, TX 79705
	A B C F G H J K N O	-	ENERGEN RESOURCES CORP	-	-	626 RICHARD ARRINGTON JR BLVD NORTH	BIRMINGHAM, AL 35202
	I P	-	LEACO NEW MEXICO EXPL AND PROD LLC	-	-	2000 POST OAK BLVD SUITE 100	HOUSTON, TX 77056
17/23S/35E	A H I P	EOG RESOURCES INC	-	-	-	PO BOX 2267	MIDLAND, TX 79702
21/23S/35E	A B C D G H I	EOG RESOURCES INC	-	-	-	PO BOX 2267	MIDLAND, TX 79702
22/23S/35E	C D E	-	-	BUREAU OF LAND MANAGEMENT	-	301 DINOSAUR TRAIL	SANTA FE, NM 87508
Surface Location	-	-	-	-	LIMESTONE BASIN PROP RANCH LLC	3300 N A ST BLDG 1 STE 220	MIDLAND, TX 79705



**Rubys Lounge SWD No. 1**  
**2 Mile Area of Review**  
 NGL Water Solutions  
 Lea County, NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: SJL	Date: 2/18/2020	Approved by: C6W
---------------	-----------------	------------------

**LONQUIST & CO LLC**

REGULATORY ENGINEERING ENERGY ADVISORS  
 METAL ANALYSIS • SURVEYING • GEOTECHNICAL  
 REMEDIATION • ENVIRONMENTAL • WATER QUALITY CONSULTING

- ✦ Rubys Lounge SWD No. 1
- 1/2 Mile Radius
- 1 Mile Radius
- 2 Mile Radius
- ▬ QQ-Section (NM-PLSS 2nd Div.)
- ▬ Section (NM-PLSS 1st Div.)
- ▬ Township/Range (NM-PLSS)
- Laterals

**API (30-025-...) SHL Status - Type (Count)**

- Horizontal Surface Location (45)
- Plugged (Site Released) - Oil (5)
- Plugged (Site Released) - Gas (1)
- Canceled Location (1)

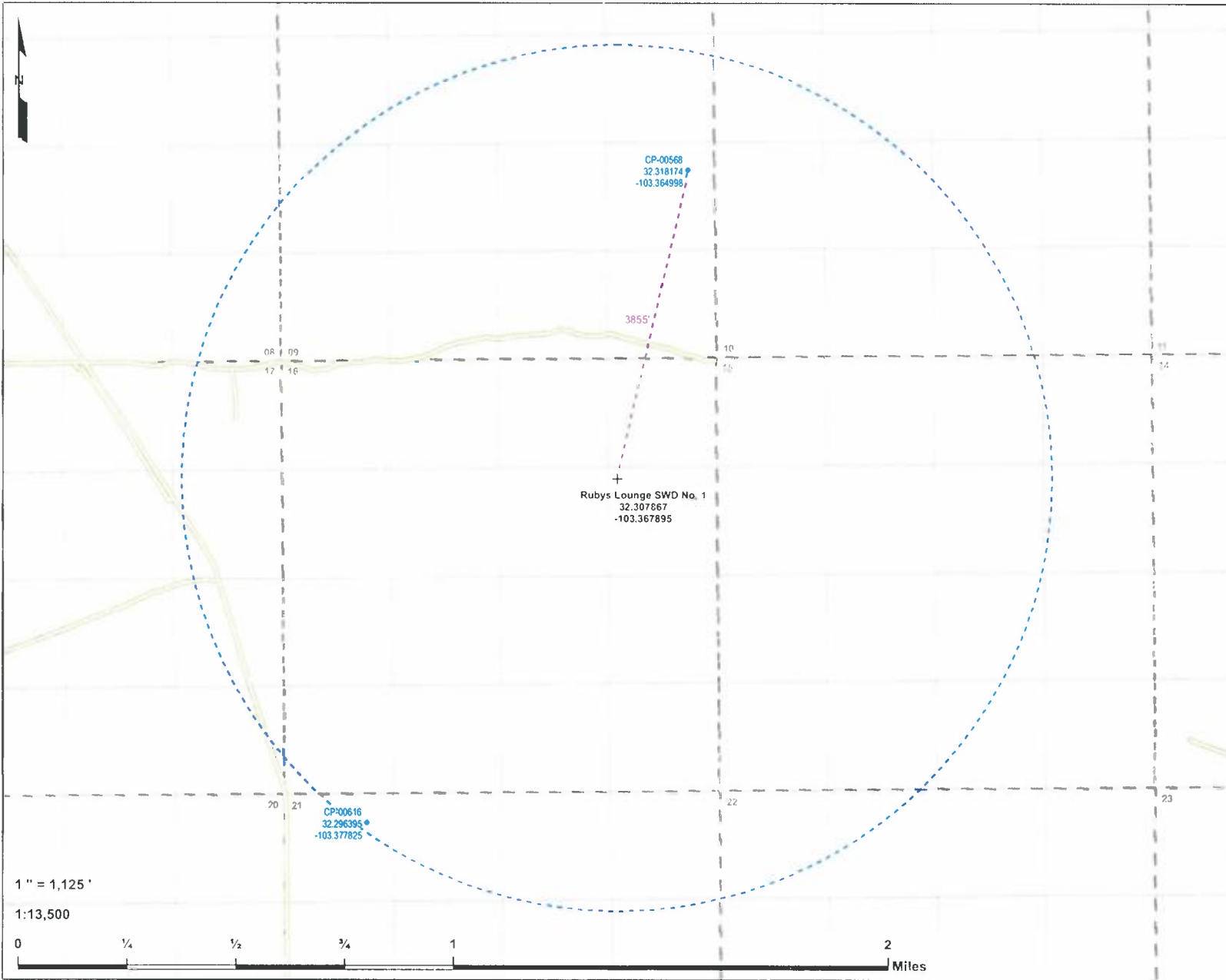
**API (30-025-...) BHL Status - Type (Count)**

- Active - Oil (12)
- Permitted - Oil (29)
- Plugged (Site Released) - Oil (2)
- Canceled Location (2)

\*Well Data Source: NM-OCD, DrillingInfo (2020)

**Map Extent**

**NEW MEXICO**  
TEXAS



**Rubys Lounge SWD No. 1**  
**1 Mile Offset Water Wells**  
 NGL Water Solutions  
 Lea County, NM

PCS - NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: SJL    Date: 2/18/2020    Approved by: CBW

**LONDONIST & CO LLC**  
 CONSULTING ENGINEERS & SURVEYORS  
 10000 W. HIGHTOWER, SUITE 1000, DALLAS, TEXAS 75243  
 PHONE: (214) 343-1100    FAX: (214) 343-1101  
 WWW.LONDONIST.COM    INFO@LONDONIST.COM

- + Rubys Lounge SWD No. 1
- Water Wells (2)
- - - Distance Call
- ⊞ 1 Mile Radius
- ▭ QQ-Section (NM-PLSS 2nd Div.)
- ▭ Section (NM-PLSS 1st Div.)
- ▭ Township/Range (T23S R35E)

\*Water Well Data Source: NMI OSE (2020)

Rubys Lounge SWD #1: Offsetting Produced Water Analysis																		
wellname	apl	section	township	range	unit	county	formation	ph	tds_mgL	sodium_mgL	calcium_mgL	iron_mgL	magnesium_mgL	manganese_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL	co2_mgL
ANTELOPE RIDGE UNIT #002	3002520444	4	24S	34E	B	LEA	ATOKA	6.7	51475						31000	317	340	
TODD 26 G FEDERAL #001	3001520242	26	23S	31E	G	EDDY	ATOKA	6.7	202478						126000	93	540	
BELL LAKE UNIT #009	3002520261	18	23S	34E	K	LEA	BONE SPRING		204652						130000	512	260	
THYME APY FEDERAL #002	3002533529	1	23S	32E	G	LEA	BONE SPRING	6.1	172896		0	0	2025		104976	781	1150	
THISTLE UNIT #071H	3002542425	27	23S	33E	A	Lea	BONE SPRING 1ST SAND	5.6	171476.3	55363.2	9140	40.4	1023	1.1	104576.4	244	560	770
SEA SNAKE 35 STATE #001H	3002541625	35	23S	33E	M	Lea	BONE SPRING 2ND SAND	7	146173.6	48514.2	6777	38.9	763.1	1.51	88880	207.4	635	60
GAUCHO UNIT #013H	3002541565	20	22S	34E	A	Lea	BONE SPRING 2ND SAND	7.5	139904.6	46238.1	6396.8	47.2	863.7	2.1	85080.8	292.8	740	550
SALADO DRAW 6 FEDERAL #001H	3002541293	6	26S	34E	M	Lea	BONE SPRING 3RD SAND	7	98321.4	33892.3	3267	9.5	534.7	0.39	59386.6	219.6	635	300
GAUCHO UNIT #011H	3002541184	17	22S	34E	O	Lea	BONE SPRING 3RD SAND	6.8		43301	5338	0	769	0	78300	122	640	120
BELLOQ 2 STATE #002H	3001542895	2	23S	31E	C	EDDY	WOLFCAMP	6.8	119472	37359.2	5659.1	22.4	746.1		73172.5		1035.5	250
SWEETNESS 30 STATE FED COM #001H	3002541864	30	23S	35E	G	Lea	DELAWARE-BRUSHY CANYON	5.5		53792	19065	78	2983	4.34	126850	122	690	220
RED BULL 29 FEDERAL #001H	3002540628	29	23S	35E	D	Lea	DELAWARE-BRUSHY CANYON	6.3		71207	35626	28	5417	6.2	190774	61	90	120



# New Mexico Office of the State Engineer

## Point of Diversion Summary

<b>Well Tag</b>	<b>POD Number</b>						
	CP 00568						
		(quarters are 1=NW 2=NE 3=SW 4=SE)		(quarters are smallest to largest)		(NAD83 UTM in meters)	
		<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
		2 2 4	09	23S	35E	653908	3576878*

<b>Driller License:</b> 46	<b>Driller Company:</b> ABBOTT BROTHERS COMPANY		
<b>Driller Name:</b> ABBOTT, MURRELL			
<b>Drill Start Date:</b> 10/18/1977	<b>Drill Finish Date:</b> 11/01/1977	<b>Plug Date:</b> 12/09/1977	
<b>Log File Date:</b> 11/03/1977	<b>PCW Rcv Date:</b>	<b>Source:</b>	
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>	
<b>Casing Size:</b> 7.00	<b>Depth Well:</b> 875 feet	<b>Depth Water:</b>	

\*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.

Form C-105  
Revised 10-1-78

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.O.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.  
V-531

1a. TYPE OF WELL  
OIL WELL  GAS WELL  DRY  OTHER RE-ENTRY

b. TYPE OF COMPLETION  
NEW WELL  WORK OVER  DEEPEN  PLUG BACK  DIFF. RESVR.  OTHER

7. Unit Agreement Name

8. Farm or Lease Name  
Sandwell AEO State

2. Name of Operator  
Yates Petroleum Corporation

9. Well No.  
1

3. Address of Operator  
105 South 4th St., Artesia, NM 88210

10. Field and Pool, or Wildcat  
Wildcat

4. Location of Well  
UNIT LETTER J LOCATED 1980 FEET FROM THE South LINE AND 1980 FEET FROM

12. County  
Lea

THE East LINE OF SEC. 9 TWP. 23S RGE. 35E NMPM

15. Date Spudded RE-ENTRY 5-31-87  
16. Date T.D. Reached 6-23-87  
17. Date Compl. (Ready to Prod.) 8-8-87  
18. Elevations (DF, RKB, RT, GR, etc.) 3493' GR  
19. Elev. Casinghead

20. Total Depth COTD 12978'  
21. Plug Back T.D. 11165'  
22. If Multiple Compl., How Many  
23. Intervals Drilled By Rotary Tools Cable Tools  
X

24. Producing Interval(s), of this completion - Top, Bottom, Name  
8752-8786'; 10830-11108' Bone Springs  
25. Was Directional Survey Made No

25. Type Electric and Other Logs Run  
None for Re-Entry  
27. Was Well Cored No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	94#	516'	26"	950 sx (in place)	
13-3/8"	68#	5655'	17-1/2"	2900 sx (in place)	
9-5/8"	40#	11840'	12-1/4"	1550 sx (in place)	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8"	8732'	-

31. Perforation Record (Interval, size and number)

8752-86' w/10 .42" Holes  
10830-11108' w/24 .45" Holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
8752-86'	w/1500g. 7% acid. SF w/10000g. KCL, 10000# 20/40 sd.
10830-11108'	w/4500g. 15% acid. Re-acid w/ 20000g. 20% NEFE acid+CO <sub>2</sub> .

33. PRODUCTION

Date First Production 8-4-87  
Production Method (Flowing, gas lift, pumping - Size and type pump) Pumping  
Well Status (Prod. or Shut-in) Producing

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
8-8-87	24	Open		26	12	44	462

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)
-	-		26	12	44	42°

34. Disposition of Gas (Sold, used for fuel, vented, etc.)  
Vented - Will be used on lease.  
Test Witnessed By Ed Locke

35. List of Attachments  
DST

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

Signed Edward Locke TITLE Production Supervisor DATE 8/14/87



INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of oil electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Zones 30 through 34 shall be reported for each zone. The form is to be filled in duplicate except on state land, where six copies are required. See title 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt <u>1900</u>	T. Strawn <u>12320</u>	T. Kirtland-Fruitland _____	T. Penn. "C" _____
U. Salt <u>2140</u>	T. Atoka <u>12632</u>	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss <u>14904</u>	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzite _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Padcock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Elinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. To-litto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs <u>8550</u>	T. Wingate _____	T. _____
T. Wolfcamp <u>11382</u>	T. Morrow Clastic- <u>13584</u>	T. Chinle _____	T. _____
T. Penn. _____	T. Woodford <u>15325</u>	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. Devonian <u>15614</u>	T. Penn. "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from _____ to _____	No. 4, from _____ to _____
No. 2, from _____ to _____	No. 5, from _____ to _____
No. 3, from _____ to _____	No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____	_____ feet
No. 2, from _____ to _____	_____ feet
No. 3, from _____ to _____	_____ feet
No. 4, from _____ to _____	_____ feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
REFER TO ORIGINAL COMPLETION.							

NO. OF COPIES RECEIVED	
DISTRIBUTION	
DATE & FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR OPERATIONS TO ABANDON OR TO REENTER OR PLUG BACK TO A DIFFERENT RESERVOIR.  
SEE APPLICATION FOR REPORT OF (FORM C-103) FOR SUCH OPERATIONS.

1.  OIL WELL  GAS WELL  OTHER

2. Name of Operator  
**Gulf Oil Corporation**

3. Address of Operator  
**P. O. Box 670, Hobbs, NM 88240**

4. Location of Well  
UNIT LETTER **J** **1980** FEET FROM THE **South** LINE AND **1980** FEET FROM  
THE **East** LINE, SECTION **9** TOWNSHIP **23-S** RANGE **35-E** N.M.P.M.

15. Elevation (Show whether DF, RT, GR, etc.)  
**3493' GL**

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.  
**L-2497**

7. Unit Agreement Name

6. Farm or Lease Name  
**Sand Well Com**

9. Well No.  
**1**

10. Field and Pool, or Wildcat  
**Wildcat**

12. County  
**Lea**

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	
		OTHER _____ <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Reached TD of 8 1/2" hole at 8:30 AM 1-20-78 at 15,972'. Loaded hole with abandonment mud. Spotted 50 sack plug from 15,645-15,520 with Class H 1% CFR-2, 50 sack plug from 14,769-14,644' with Class H 1% CFR-2, 1# salt. Spotted a 125' plug with Class H / 1% CFR-2, 5# sand, 3# salt at 14015'. Spotted 150 sx Class H with 8% CFR-2, 5# sand, 3# salt at 13,912'. Spotted a 100 sx plug with Class H 1% CFR-2, 5% sand, 3# salt at 13,885'. Set at 9 5/8" Cement retainer at 11,725'. Squeezed 290 sacks Class H below retainer, dropped 10 sacks cement on retainer. Cut and pulled 86 jts 9 5/8" casing at 3775'. Spotted a 175' plug at 3900' to 3725' with 85 sacks Class H cement, Spotted a 100' plug from 1900-1800' with 85 sacks Class H cement. Spotted 10 sacks from 55' to surface. Set a dry hole marker and cleaned location.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

IGNED By: *Steve Stone* TITLE Area Engineer DATE 1-31-78

APPROVED *Arthur W. Wick* TITLE SUPERVISOR DISTRICT 1 DATE NOV 15 1978

CONDITIONS OF APPROVAL, IF ANY: