

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: Enduring Resources, LLC OGRID Number: 372286
 Well Name: Warner Caldwell 1A API: 30-045-35505
 Pool: Not applicable Pool Code: _____

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

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☐ Notification and/or concurrent approval by SLO
 E. ☒ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

☐ Notice Complete
☐ 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.

Khem Suthiwan

Print or Type Name

Khem Suthiwan

Signature

6/21/2022

Date

303-350-5721

Phone Number

KSuthiwan@enduringresources.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? _____ Yes _____ No
- II. OPERATOR: Enduring Resources, LLC.
ADDRESS: 6300 South Syracuse Way, Suite #525
CONTACT PARTY: Khem Suthiwan PHONE: (303) 350-5721
- 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: Khem Suthiwan TITLE: Regulatory Manager
SIGNATURE: Khem Suthiwan DATE: 6/21/2022
E-MAIL ADDRESS: KSuthiwan@enduringresources.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.

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: _Enduring Resources, LLC._____

WELL NAME & NUMBER: _Warner Caldwell 1A_____

WELL LOCATION: _____ 348 FNL 331 FEL _____ A _____ 08 _____ 23N _____ 08W
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC**WELL CONSTRUCTION DATA**Surface Casing

Hole Size: __12 ¼"_____ Casing Size: 9 5/8"_____

Cemented with: __101 sx. _____ *or* _____ ft³

Top of Cement: Surface_____ Method Determined: Circ

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. _____ *or* _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7 7/8"_____ Casing Size: __5 ½"_____

Cemented with: 900 sx. _____ *or* _____ ft³

Top of Cement: Stage 1 – 4238, Stage 2 - Surface Method Determined: Circ

Total Depth: __6170'_____

Injection Interval

_____3982_____ feet to __4137'__ Perforated__

See attached wellbore diagram

Side 2

INJECTION WELL DATA SHEETTubing Size: 2 7/8" Lining Material: Plastic linedType of Packer: ASI-X Packer PackerSetting Depth: 3932' 50' above injection intervalOther Type of Tubing/Casing Seal (if applicable): N/A**Additional Data**

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

If no, for what purpose was the well originally drilled? Originally drilled by Logos Operating in the Gallup for oil/gas development

2. Name of the Injection Formation: Point Lookout

3. Name of Field or Pool (if applicable): Not applicable

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. Has not been perforated in any other zones.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Mancos – 4,167'; Gallup- 5,002'

There are no known shallower oil/gas zones in the area.



Supplemental Data for Application for Authorization to Inject – Form C-108

NMOCD Location Name (ID)	Warner Caldwell #001A (32160)
Legal Description	NENE Section 8, T23N-R08W
Coordinates (Lat/Long)	36.248085 / -107.6968689
County	San Juan County, New Mexico

III. Well Data

a) Tabular information

i) Name: Warner Caldwell 1A

API: 30-045-35505

ULSTR: A-08-23N-08W

Footages: 348 FNL 331 FEL

ii) Surface Casing: 9 5/8" 36#, J-55, ST&C, land @ 332', cement with 101 sx Type I-II, circulated 29 bbl to surface 12 1/4" hole to 337'.

Production Casing: 5 1/2" 17#, P-110, LT&C, land at 6,170'. 1st stage cement with lead - 160 sx Premium Light H.S. and tail - 150 sx 50/50 Poz standard. Displace w/ 51 bbl FW & 91 bbl mud. Circulate 32 bbl back to surface. 2nd stage cement with lead - 540 sx Premium Light H.S. and tail - 50 sx Premium cmt. Displace with 98 bbls FW, circulate 48 bbls back to surface.

iii) Injection Tubing: 2 7/8", EUE 6.5#, J-55, Internally plastic-coated set @ 3,932'

iv) Packer: AS1-X Packer @ 3,932'.

b) Additional Information

i) Injection Pool: Point Lookout

ii) Injection Interval: 3,982' – 4,137'

iii) Original Purpose: The well, Warner Caldwell 1A was originally drilled as a gas/oil producer in the Gallup Formation.

iv) Other Intervals: There are no other perforated intervals.

v) Oil/Gas Zones: Mancos – 4,167', Gallup – 5,002' There are no known shallower oil/gas zones.

IV. Proof of Notice

The Warner Caldwell 1A is on Indian Surface and a Notice of Intent (NOI) was filed with the Bureau of Land Management. Logos Resources II, LLC has a five well pad 0.67 miles from the proposed injection well surface hole location, however their Communication Agreement includes the northwest quarter, of the southwest quarter of Section 9, Township 23N, Range 8W, which is 0.45 miles from the proposed well. Proof of publication is included as Enclosure H.

Part VII. Proposed Operation

- 1) The proposed injection well will be used to dispose of produced water from wellbores operated by Enduring Resources, LLC. Average injection rate will be 880 barrels of water per day (bwpd) with a maximum of 1,130 bwpd.



- 2) The system will be closed.
- 3) The proposed average and maximum injection pressure will be 650 pounds per square inch (psi) average, with a maximum of 810 psi.
- 4) The source water to be disposed originates from the Gallup and Mancos formations. The Point Lookout Formation is commonly used for both extraction and injection purposes in the San Juan Basin. The proposed injected water would be of similar quality to the existing water present in the Point Lookout Formation. Injection water will be produced water from present and future Enduring Resources, LLC Gallup wells in the San Juan Basin. Water sample analysis from the Gallup and Mancos formations are included as Enclosure E.
- 5) Injected water is for disposal purpose. Point Lookout sandstone of the Mesa Verde formation has not been proven productive within the area of review. In general, Point Lookout water has a specific conductance of <1,500 micro-ohms (μmhos). Stone et al in *Hydrology and Water Resources of San Juan Basin, New Mexico* wrote, "The Point Lookout Sandstone is not widely used as a source of water." Water sample analysis from the Mesa Verde formation is included as Enclosure F.

Part VIII. Geologic Data

The proposed injection interval is the Point Lookout Sandstone of the Mesa Verde formation. Point Lookout overlies the Mancos formation and underlies the Menefee formation. The top of the Mesa Verde formation is the Menefee at a depth of 3,018 feet belowground surface (bgs) with the top of the Point Lookout at 3,972 feet bgs. The Point Lookout interval is from 3,982 to 4,137 feet bgs. The Ojo Alamo is the only possible freshwater zone and is at a depth of 862 feet bgs. Surface casing was set at 332 feet bgs. Production Casing was run past the Point Lookout interval and set at 6170'. The Ojo Alamo is protected from possible contamination. The vertical distance between the Ojo Alamo and Point Lookout is approximately 3,110 feet and the Kirtland shale also serves as a thick barrier to protect against water migration to surface. There are many injection and disposal wells active in the Mesa Verde Group in New Mexico. The current wellbore diagram is included as Enclosure B and the proposed wellbore diagram is included as Enclosure C.

The expected formation tops within Warner Caldwell 1A are as follows:

Ojo Alamo	862'
Kirtland	1078'
Pictured Cliffs	1519'
Menefee	3018'
Point Lookout	3972'
Mancos	4167'
Gallup	5002'
Greenhorn	5939'
Graneros	6008'
Dakota	6072'

The lithology of the Point Lookout formation is typical for what is seen within the surrounding vicinity. The Point Lookout Formation is part of the greater Mesa Verde Group. Point Lookout formation represents regressive-marine shore face deposits laid down as the western shoreline of the Western Interior Seaway shifted across the basin from southwest to northeast. The Point Lookout formation is



considered tight and has average porosities of 10 to 15 % and permeabilities of 0 to 5.5 millidarcies. The Point Lookout primarily consists of two sandstone units separated by thin beds of gray sandy shale. Point lookout is grayish orange to very pale orange. It is generally even bedded with cross bedding occurring in certain places. It is composed of fine to medium grained quartzose sand. The sandstone is moderately well sorted and contains relatively few dark accessory minerals. The thickness of Point Lookout is anywhere from 50 to 450 feet. The Lower Point Lookout overlies the undivided part of the Mancos Shale. The Upper Point Lookout is overlined by the Menefee formation and is conformable and generally sharp. The closest producing water well (SJ-02686) is approximately 5.90 miles from Warner Caldwell 1A, with depth to water of approximately 690 feet below ground surface. No existing underground drinking water sources are below the Point Lookout within a 2-mile radius.

IX. Stimulation Program

This wellbore was drilled and completed by Logos Operating, LLC. The Gallup formation was water and sand fracture stimulated in March 2014. Immediately following completion, tubing was installed, and the wellbore was cleaned out to PBTD to remove excess frac sand. The well was temporarily abandoned by WPX Energy in April 2017 and continued temporary abandonment status was approved by NMOCDD in March 2022. The proposed injection well will be acidized with approximately 1,500 gal 15% HCl acid prior to beginning injection operations.

X. Logging and Test Data

There are currently no logs for this well. All logs and test data for the proposed injection well will be submitted to the New Mexico Oil Conservation Division in Aztec, NM.

XI. Fresh Water Wells

A search for freshwater wells within one mile of the proposed disposal well was conducted using the New Mexico Office of the State Engineer website at <http://nmwrrs.ose.state.nm.us/nmwrrs/index.html>. The search returned no freshwater wells within one mile of the proposed disposal well. A map showing the locations of the nearest wells is included as Enclosure G.

XII. Statement of Geologic and Engineering Data

Enduring Resources, LLC has examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

X 

Costin McQueen
Program Geologist (Contractor)

ENCLOSURE A: SURVEY PLAT

DISTRICT I
1425 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Artesia, N.M. 87410
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 478-3400 Fax: (505) 478-3402

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

JAN 14 2014

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

Farmington Field Office
Bureau of Land Management ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35505		*Pool Code 47540	*Pool Name NAGEEZI GALLUP
*Property Code 40413	*Property Name WARNER-CALDWELL		*Well Number 1A
*GRID No. 289408	*Operator Name LOGOS OPERATING, LLC		*Elevation 6857'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	23-N	8-W		348	NORTH	331	EAST	SAN JUAN

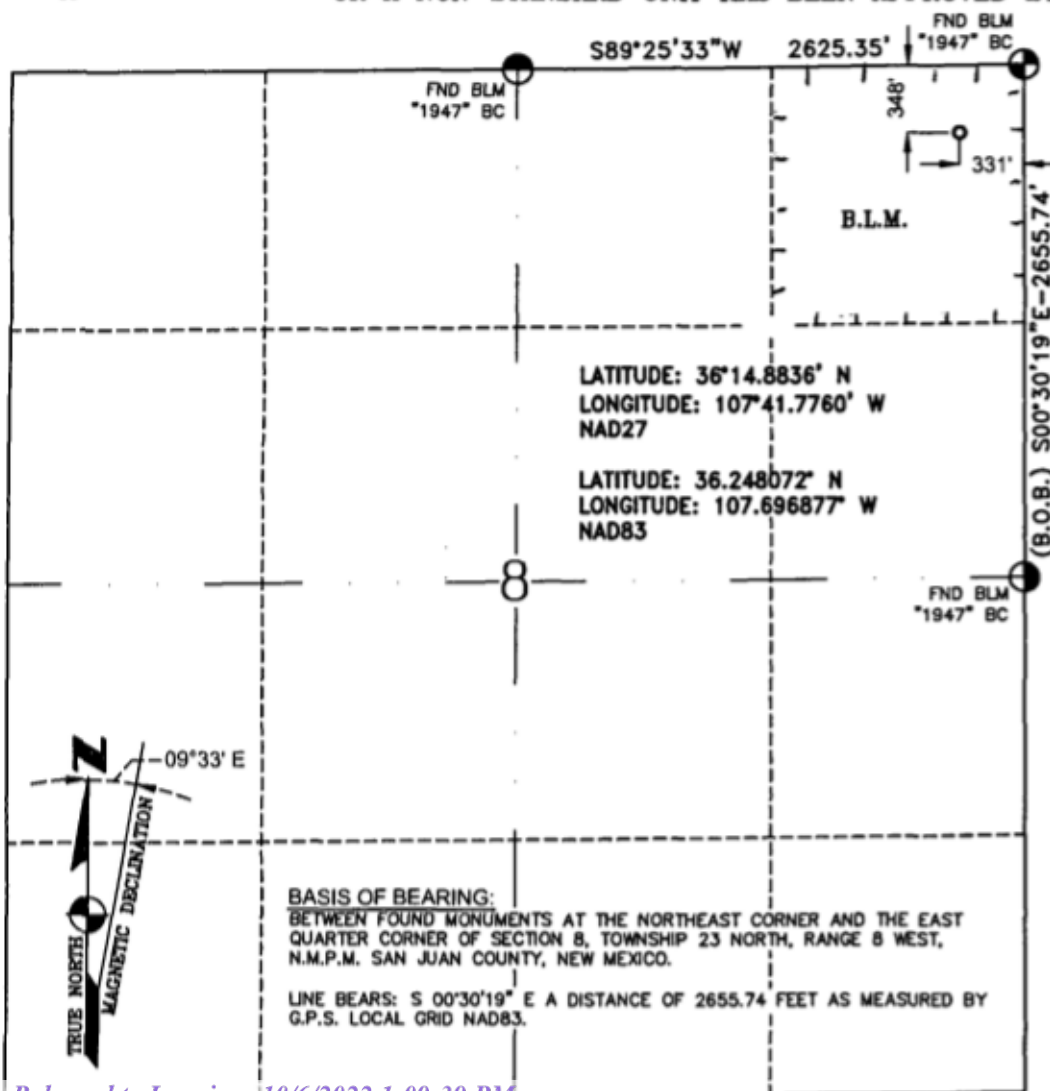
11 Bottom Hole Location If Different From Surface

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

*Dedicated Acres 40 ACRES	*Joint or Infill NE/NE 8	*Consolidation Code	*Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



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 undivided 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Tamara Sessions 1/13/14
Signature Date
Printed Name
tsessions@logosresourcesllc.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 and correct to the best of my belief.

SEPTEMBER 5, 2013

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

Certificate Number

15703

Sheet C

**Directions from the Intersection of Highway 550 and Highway
64 in Bloomfield, NM**

to

LOGOS OPERATING, LLC

WARNER-CALDWELL #1A

348' FNL 331' FEL,

**Section 8, T23N, R8W, N.M.P.M., San Juan County,
New Mexico**

Latitude: 36° 14' 53.06" N

Longitude: 107° 41' 48.76" W

Nad 1983

From the Intersection of Highway 550 & Highway 64

Go South on Hwy 550 for 39.3 miles,

To 44 store,

turn left (northerly) for 300 feet

just past 44 store parking lot,

to the beginning of new access

on the right (east) side of the road,

From which the new access begins and

continues (easterly) for 0.2 miles

stay right (easterly then northerly) for 0.4 miles

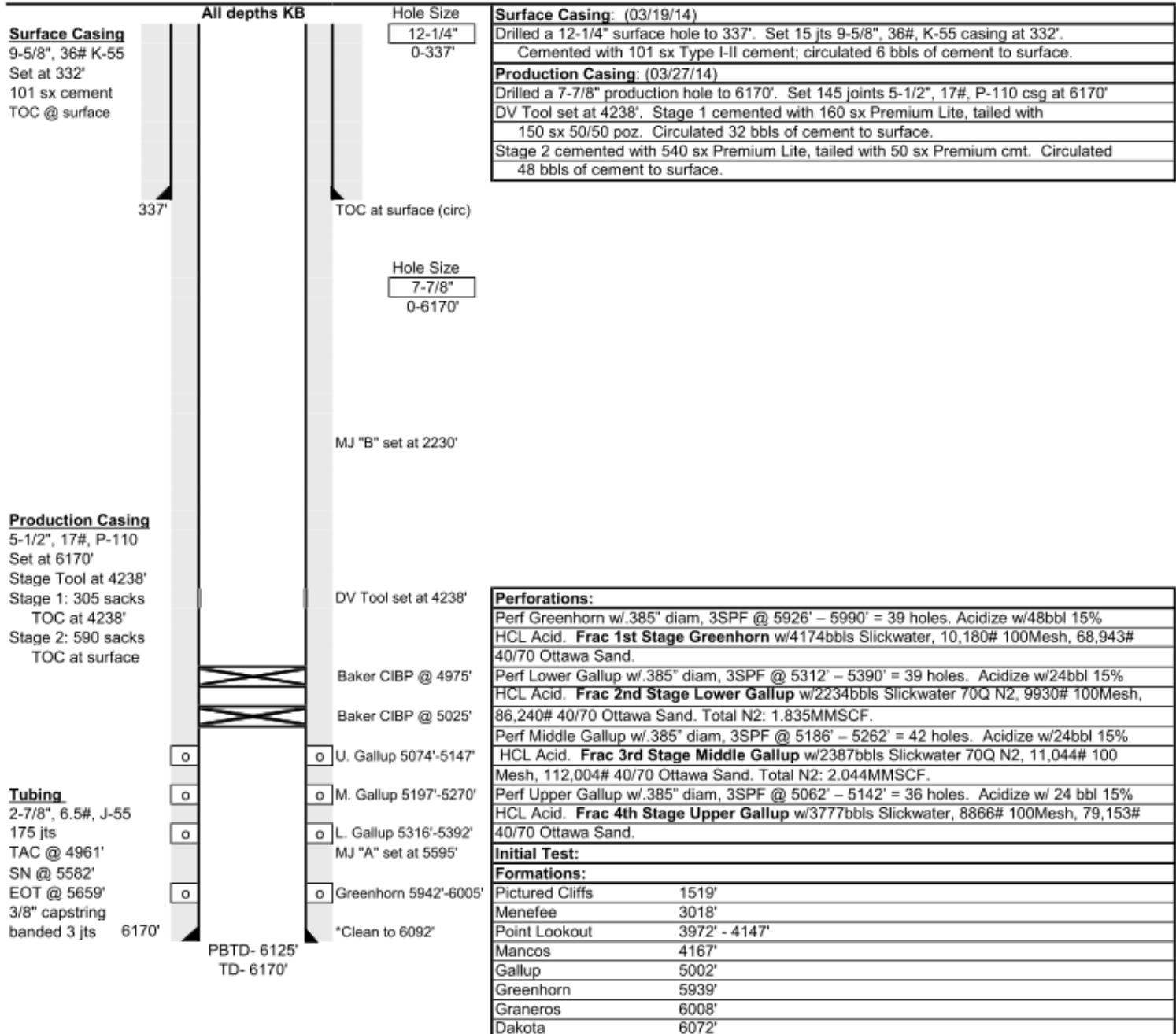
to the new location.

ENCLOSURE B: CURRENT WELLBORE DIAGRAM

Wellbore Schematic

Well Name: Warner-Caldwell #1A
 Location: 348° FNL, 331° FEL, Section 8, T23N, R08W
 County: San Juan
 API #: 30-045-35505
 Co-ordinates: LAT: 36.247927° N LONG: 107.702401° W
 Elevations: GROUND: 6857'
 KB: 6870'
 Depths (KB): PBDT: 6125'
 TD: 6170'

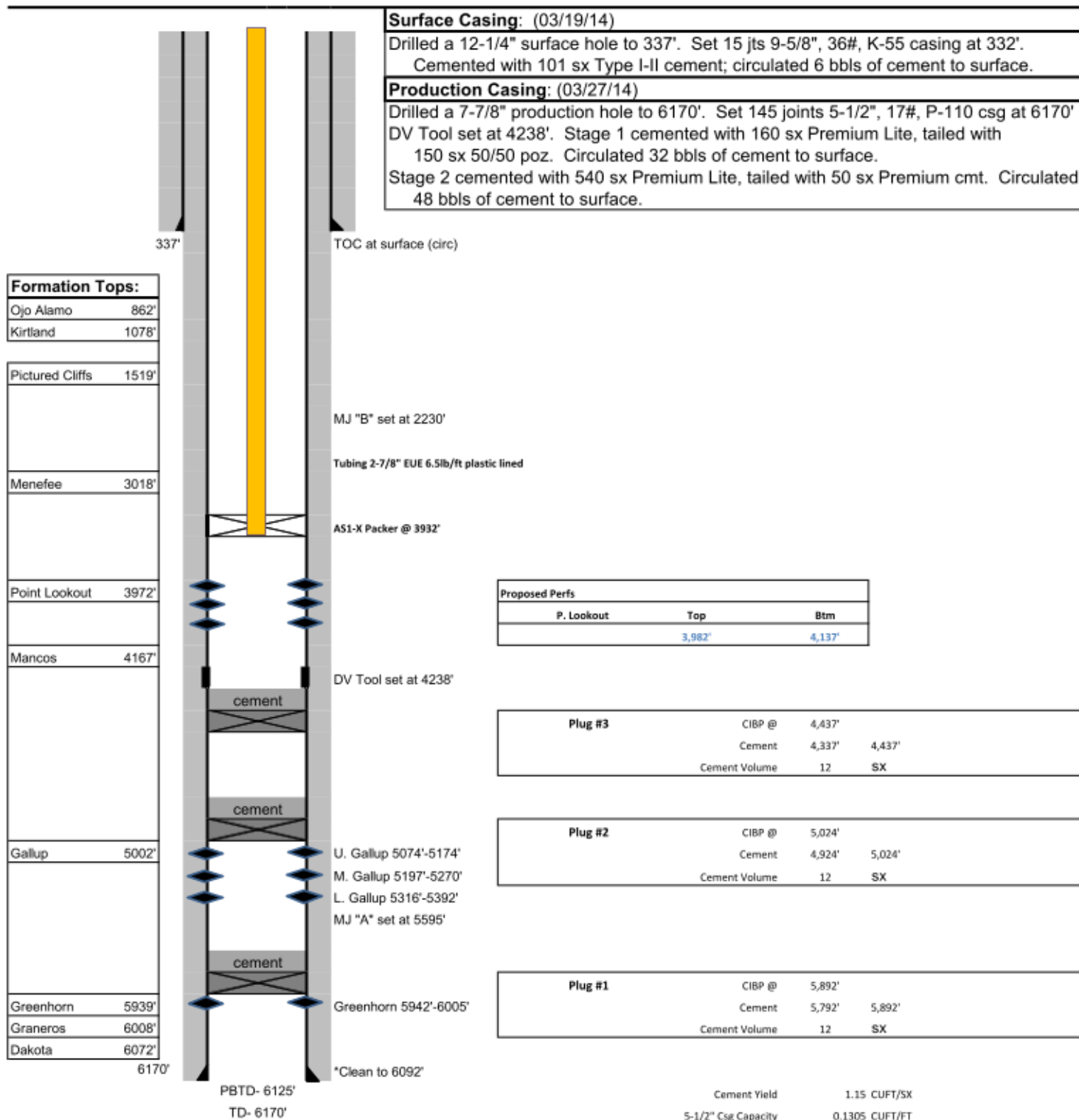
Date Prepared: 3/28/2014
 Last Updated: 6/13/2022 SAO
 Spud Date: 3/19/2014
 Completion Date: 4/3/2014
 Last Workover Date: 6/5/2014



ENCLOSURE C: PROPOSED WELLBORE DIAGRAM

Wellbore Schematic

Well Name:	Warner-Caldwell #1A	Date Prepared:	3/28/2014
Location:	348' FNL, 331' FEL, Section 8, T23N, R08W	Last Updated:	6/13/2022 SAO
County:	San Juan	Spud Date:	3/19/2014
API #:	30-045-35505	Completion Date:	4/3/2014
Co-ordinates:	LAT: 36.247927° N LONG: 107.702401° W	Last Workover Date:	6/5/2014
Elevations:	GROUND: 6857'		
	KB: 6870'		
Depths (KB):	PBTD: 6125'		
	TD: 6170'		



ENCLOSURE D: LIST OF ACTIVE WELLS

Wells located within 1/2 mile radius of proposed SWD well (Warner Caldwell #001A)														
Count	API	Name	Type Code	Type	Status	OGRID	County	ULSTR	Footage	Plug Date	Point Lookout Penetration	Spud Date	Measured Depth	True Vertical Depth
1	30-045-35505	WARNER CALDWELL #001A	O	Oil	Temporary Abandonment	372286	San Juan	A-08-23N-08W	348 FNL 331 FEL	N/A	Yes, Proposed Well	3/19/2014	6170'	6125'
2	30-045-35506	WARNER CALDWELL #003B	O	Oil	Active	372286	San Juan	B-08-23N-08W	384 FNL 1960 FEL	N/A	Yes, Proposed Well	3/10/2014	6155'	6095'
3	30-045-35422	LOGOS #006	G	Gas	Active	372286	San Juan	G-08-23N-08W	1662 FNL 1973 FEL	N/A	Yes, Active	2/6/2013	6230'	6175'
4	30-045-35643	MC 4 COM #285H	O	Oil	Active	372286	San Juan	A-08-23N-08W	328 FNL 334 FEL	N/A	Yes, Active	3/10/2015	10437'	10388'
Wells located within 2 mile radius of proposed SWD well (Warner Caldwell #001A)														
Count	API	Name	Type Code	Type	Status	OGRID	County	ULSTR	Footage	Plug Date	Point Lookout Penetration	Spud Date	Measured Depth	True Vertical Depth
1	30-045-35748	W LYBROOK UNIT #705H	O	Oil	Active	372286	San Juan	O-07-23N-08W	1344 FSL 2233 FEL	N/A	Yes, Active	3/16/2017	10790	5097
2	30-045-35752	W LYBROOK UNIT #745H	O	Oil	Active	372286	San Juan	O-07-23N-08W	1333 FSL 2250 FEL	N/A	Yes, Active	3/15/2017	15003	5018
3	30-045-35751	W LYBROOK UNIT #746H	O	Oil	Active	372286	San Juan	O-07-23N-08W	1311 FSL 2284 FEL	N/A	Yes, Active	3/14/2017	13854	4991
4	30-045-35451	ESCRITO L32 2408 #001H	G	Gas	Active	371838	San Juan	L-32-24N-08W	1900 FSL 226 FWL	N/A	Yes, Active	9/24/2014	10425	0
5	30-045-35521	ESCRITO M32 2408 #001H	G	Gas	Active	371838	San Juan	M-32-24N-08W	434 FSL 60 FWL	N/A	Yes, Active	10/7/2014	10520	0
6	30-045-35639	CHACO 2308 061 #397H	O	Oil	Active	372286	San Juan	I-06-23N-08W	2100 FSL 325 FEL	N/A	Yes, Active	3/21/2015	10395	10368
7	30-045-24192	NEW MEXICO STATE #002	O	Oil	Plugged (site released)	371838	San Juan	M-32-24N-08W	950 FSL 980 FWL	6/13/2018	Yes, Active	7/20/1980	5435	5435
8	30-045-35805	W LYBROOK UNIT #731H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1205 FSL 1327 FWL	N/A	Yes, Active	12/15/2016	13520	5191
9	30-045-35554	CHACO 2308 06H #396H	O	Oil	Active	372286	San Juan	H-06-23N-08W	1737 FNL 276 FEL	N/A	Yes, Active	8/21/2014	10721	10631
10	30-045-24201	PRE-ONGARD WELL #021	O	Oil	Plugged (site released)	214263	San Juan	C-05-23N-08W	790 FNL 1650 FWL	4/27/1989	Yes, Active	3/16/1980	C	6405
11	30-045-24213	FEDERAL 6 #041	O	Oil	Plugged (site released)	14538	San Juan	A-06-23N-08W	990 FNL 830 FEL	5/12/1995	Yes, Active	2/28/1980	99995	6440
12	30-045-35728	W LYBROOK UNIT #704H	O	Oil	Active	372286	San Juan	M-08-23N-08W	1199 FSL 1287 FWL	N/A	Yes, Active	12/9/2016	11623	5075
13	30-045-35727	W LYBROOK UNIT #703H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1212 FSL 1366 FWL	N/A	Yes, Active	12/6/2016	12697	5189
14	30-045-35808	W LYBROOK UNIT #733H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1215 FSL 1386 FWL	N/A	Yes, Active	12/14/2016	11996	5203
15	30-045-35553	CHACO 2308 06H #395H	O	Oil	Active	372286	San Juan	H-06-23N-08W	1687 FNL 291 FEL	N/A	Yes, Active	8/20/2014	10653	10553
16	30-045-25010	NEW MEXICO STATE #003	O	Oil	Plugged (site released)	371838	San Juan	G-32-24N-08W	1650 FNL 1650 FEL	11/8/2018	Yes, Active	5/11/1981	5700	5700
17	30-045-35792	W LYBROOK UNIT #744H	O	Oil	Active	372286	San Juan	M-08-23N-08W	1202 FSL 1307 FWL	N/A	Yes, Active	12/8/2016	10580	5104
18	30-045-35912	KTB 2408 32A COM #002H	O	Oil	Active	289408	San Juan	A-32-24N-08W	1205 FNL 360 FEL	N/A	Yes, Active	5/14/2019	11465	5519
19	30-045-35491	CHACO 2408 32P #115H	O	Oil	Active	372286	San Juan	P-32-24N-08W	537 FSL 329 FEL	N/A	Yes, Active	9/30/2013	10541	10415
20	30-045-35725	W LYBROOK UNIT #743H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1209 FSL 1346 FWL	N/A	Yes, Active	12/7/2016	9816	5124
21	30-045-23524	NEW MEXICO STATE #001	O	Oil	Plugged (site released)	371838	San Juan	O-32-24N-08W	790 FSL 1750 FEL	12/2/2015	Yes, Active	5/16/1979	6521	6521
22	30-045-35605	MC 5 COM #112H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1276 FNL 405 FWL	N/A	Yes, Active	12/9/2014	13156	5570
23	30-045-35505	WARNER CALDWELL #001A	O	Oil	Temporary Abandonment	372286	San Juan	A-08-23N-08W	348 FNL 331 FEL	N/A	Yes, Active	3/19/2014	6170	6125
24	30-045-35913	KTB 2408 32A COM #003H	O	Oil	Active	289408	San Juan	A-32-24N-08W	1232 FNL 374 FEL	N/A	Yes, Active	5/15/2019	11514	5502
25	30-045-35506	WARNER CALDWELL #003B	O	Oil	Active	372286	San Juan	B-08-23N-08W	384 FNL 1960 FEL	N/A	No, Active	3/10/2014	6155	6095
26	30-045-35422	LOGOS #006	G	Gas	Active	372286	San Juan	G-08-23N-08W	1662 FNL 1973 FEL	N/A	Yes, Active	2/6/2013	6230	6175
27	30-045-35615	MC 1 COM #458H	O	Oil	Active	372286	San Juan	D-04-23N-08W	484 FNL 755 FWL	N/A	Yes, Active	1/14/2015	10685	10602
28	30-045-35602	MC 5 COM #113H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1304 FNL 372 FWL	N/A	Yes, Active	11/17/2014	10878	5531
29	30-045-35687	HEROS 2308 09L COM #002H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 240 FWL	N/A	Yes, Active	4/25/2018	10371	5290
30	30-045-35606	MC 5 COM #906H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1262 FNL 422 FWL	N/A	Yes, Active	12/11/2014	14155	5346
31	30-045-35848	HEROS 2308 09L COM #003H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 270 FWL	N/A	Yes, Active	4/26/2018	10325	5263
32	30-045-35441	CHACO 2408 32P #114H	O	Oil	Active	372286	San Juan	P-32-24N-08W	1203 FSL 382 FEL	N/A	Yes, Active	1/4/2013	10346	10317
33	30-045-35877	HEROS 2308 09L COM #005H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 330 FWL	N/A	Yes, Active	6/6/2018	10475	5257
34	30-045-35847	HEROS 2308 09L COM #004H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 300 FWL	N/A	Yes, Active	5/4/2018	10533	5227
35	30-045-20951	FEDERAL F #001	O	Oil	Plugged (site released)	23846	San Juan	J-08-23N-08W	2080 FSL 1960 FEL	8/15/2000	Yes, Active	10/5/1971	5291	5291
36	30-045-35608	MC 2 COM #283H	O	Oil	Active	372286	San Juan	L-04-23N-08W	2431 FSL 405 FWL	N/A	Yes, Active	2/5/2015	10455	10359
37	30-045-35627	MC 4 COM #459H	O	Oil	Active	372286	San Juan	L-04-23N-08W	2431 FSL 427 FWL	N/A	Yes, Active	2/3/2015	10554	10454
38	30-045-35607	MC 3 COM #284H	O	Oil	Active	372286	San Juan	L-04-23N-08W	2431 FSL 383 FWL	N/A	Yes, Active	2/9/2015	10395	10299
39	30-045-35643	MC 4 COM #285H	O	Oil	Active	372286	San Juan	A-08-23N-08W	328 FNL 334 FEL	N/A	Yes, Active	3/10/2015	10437	10388
40	30-045-35688	HEROS 2308 09L COM #001H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 210 FWL	N/A	Yes, Active	1/21/2017	10592	5186
41	30-045-35603	MC 5 COM #119H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1290 FNL 388 FWL	N/A	Yes, Active	11/19/2014	11485	5493
42	30-045-35616	MC 1 COM #282H	O	Oil	Active	372286	San Juan	D-04-23N-08W	480 FNL 777 FWL	N/A	Yes, Active	1/7/2015	10615	10531
43	30-045-35726	W LYBROOK UNIT #702H	O	Oil	Active	372286	San Juan	M-09-23N-08W	371 FSL 693 FWL	N/A	Yes, Active	2/9/2017	12214	5314
44	30-045-35725	W LYBROOK UNIT #701H	O	Oil	Active	372286	San Juan	M-09-23N-08W	371 FSL 693 FWL	N/A	Yes, Active	2/7/2017	10380	5338
45	30-045-35911	KTB 2408 32A COM #001H	O	Oil	Active	289408	San Juan	A-32-24N-08W	1179 FNL 346 FEL	N/A	No, Active	5/13/2019	C	0
46	30-045-13285	PRE-ONGARD WELL #004	O	Oil	Plugged (site released)	214263	San Juan	F-16-23N-08W	1980 FNL 1980 FWL	6/14/1957	Yes, Active	5/27/1957	C	5300
47	30-045-31696	SOUTH BLANCO FEDERAL 13	O	Oil	Active	372834	San Juan	L-13-24N-08W	1950 FSL 790 FWL	N/A	No, Active	11/3/2007	5926	5926
48	30-045-05076	PRE-ONGARD WELL #002	O	Oil	Plugged (site released)	214263	San Juan	O-16-23N-08W	660 FSL 2103 FEL	9/4/1958	Yes, Active	4/10/1955	C	6098
49	30-045-35678	CHACO 2408 33M #120H	O	Oil	Plugged (site released)	120782	San Juan	M-33-24N-08W	1087 FSL 428 FWL	7/18/2016	No, Active	5/18/2015	C	0
50	30-045-24526	FEDERAL 9 #031	O	Oil	Active	372834	San Juan	B-09-23N-08W	850 FNL 1700 FEL	N/A	Yes, Active	10/14/1980	5482	5482
51	30-045-24861	STATE OF NEW MEXICO 16 #00	O	Oil	Plugged (site released)	149052	San Juan	C-16-23N-08W	890 FNL 1920 FWL	11/10/2004	Yes, Active	4/30/1981	5508	5508
52	30-045-25281	STATE OF NEW MEXICO 16 #00	O	Oil	Plugged (site released)	149052	San Juan	I-16-23N-08W	1650 FSL 790 FEL	3/2/2011	Yes, Active	12/19/1981	5306	5306
53	30-045-35496	CHACO 2308 09A #145H	O	Oil	Active	372286	San Juan	A-09-23N-08W	917 FNL 240 FEL	N/A	Yes, Active	12/16/2013	10592	10488
54	30-045-35502	CHACO 2308 161 #148H	O	Oil	Active	372286	San Juan	I-16-23N-08W	1531 FSL 271 FEL	N/A	Yes, Active	2/3/2014	10366	10257
55	30-045-24515	FEDERAL 3 #023	O	Oil	Plugged (site released)	371838	San Juan	K-03-23N-08W	1760 FSL 1785 FWL	11/1/2018	Yes, Active	9/16/1980	5400	5400
56	30-045-35439	CHACO 2308 161 #147H	O	Oil	Active	372286	San Juan	I-16-23N-08W	1491 FSL 248 FEL	N/A	Yes, Active	2/20/2013	9751	9663
57	30-045-35587	CHACO 2308 04P #406H	O	Oil	Active	372286	San Juan	P-04-23N-08W	1323 FSL 208 FEL	N/A	Yes, Active	9/22/2014	10525	10434
58	30-045-35498	CHACO 2308 09A #146H	O	Oil	Active	372286	San Juan	A-09-23N-08W	1520 FSL 1025 FWL	N/A	Yes, Active	1/13/2014	10566	10490
59	30-045-35538	CHACO 2308 03L #405H	G	Gas	Active	372286	San Juan	L-03-23N-08W	2216 FSL 74 FWL	N/A	Yes, Active	7/8/2014	10415	10329
60	30-045-35539	CHACO 2308 03L #404H	O	Oil	Active	372286	San Juan	L-03-23N-08W	2268 FSL 70 FWL	N/A	Yes, Active	6/26/2014	10592	10502
61	30-045-35677	CHACO 2408 33M #121H	O	Oil	Plugged (site released)	120782	San Juan	M-33-24N-08W	1086 FSL 450 FWL	7/18/2016	No, Active	5/20/2015	304	304
62	30-045-35495	CHACO 2308 04P #149H	O	Oil	Active	372286	San Juan	P-04-23N-08W	790 FSL 1680 FWL	N/A	Yes, Active	1/20/2014	10651	10549
63	30-045-35588	CHACO 2308 03E #403H	O	Oil	Active	372286	San Juan	E-03-23N-08W	1906 FNL 817 FWL	N/A	Yes, Active	9/24/2014	10664	10555
64	30-0													

ENCLOSURE E: SAMPLE INJECTION FLUID ANALYTICAL REPORTS

Brine Chemistry Evaluation

SYSTEM IDENTIFICATION

Company: Enduring Resources
 Lease/Unit: WLU 729H
 Sample Location: Separator
 Submitted By: Kenny Wood
 Sales Representative: Kenny Wood
 Analyst: Lindsey Kelleher
 Lab Entry Date: 06-16-2022

Sample ID#: 0
 ID: 220616007

Sample Date: 06-15-2022 at 0000□Ntp`
 Report Date: 06-20-2022

WATER CHEMISTRY

CATIONS

Calcium(as Ca)	367.45
Magnesium(as Mg)	93.45
Barium(as Ba)	11.72
Strontium(as Sr)	60.87
Sodium(as Na)	16753
Iron(as Fe)	13.86
Manganese(as Mn)	0.770

ANIONS

Chloride(as Cl)	24269
Sulfate(as SO ₄)	2850
Dissolved CO ₂ (as CO ₂)	149.70
Bicarbonate(as HCO ₃)	793.00
H ₂ S (as H ₂ S)	2.00

PARAMETERS

Temperature(°F)	80.00
Sample pH	7.50
Conductivity	60860
T.D.S.	45873
Resistivity	16.43
Sp.Gr.(g/mL)	1.03

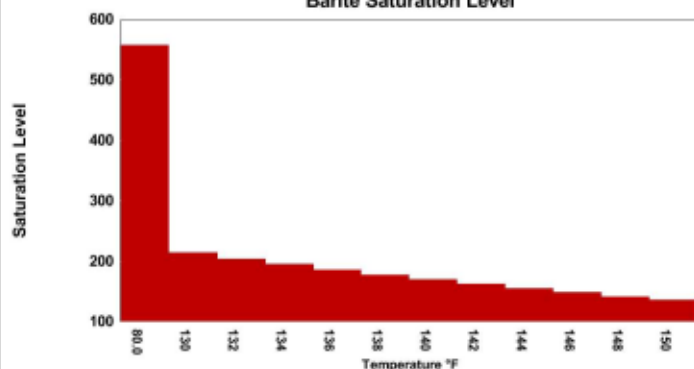
SCALE AND CORROSION POTENTIAL

Temp. (°F)	Press. (psia)	Calcite CaCO ₃		Anhydrite CaSO ₄		Gypsum CaSO ₄ *2H ₂ O		Barite BaSO ₄		Celestite SrSO ₄		Siderite FeCO ₃		Mackawenite FeS		CO ₂ (mpy)	CO ₂ mole %
80.00	14.70	5.64	1.78	0.174	-822.48	0.269	-607.74	557.30	7.13	2.32	25.70	351.82	2.50	28.10	0.523	0.0110	0.388
130.00	50.00	4.64	1.04	0.239	-591.23	0.298	-527.45	213.48	7.11	2.46	26.76	403.48	1.53	9.62	0.458	0.0250	0.388
132.00	145.00	4.52	1.01	0.240	-585.61	0.298	-526.62	203.76	7.11	2.43	26.56	401.89	1.50	9.19	0.453	0.0388	0.388
134.00	240.00	4.41	0.988	0.242	-579.69	0.298	-525.88	194.53	7.10	2.41	26.36	400.17	1.48	8.78	0.447	0.0424	0.388
136.00	335.00	4.31	0.963	0.244	-573.56	0.297	-525.30	185.66	7.10	2.38	26.15	398.71	1.45	8.40	0.442	0.0418	0.388
138.00	430.00	4.20	0.937	0.246	-567.06	0.297	-524.75	177.31	7.10	2.35	25.94	396.70	1.42	8.02	0.437	0.0392	0.388
140.00	525.00	4.10	0.914	0.249	-560.32	0.297	-524.29	169.37	7.10	2.33	25.73	395.33	1.40	7.67	0.431	0.0359	0.388
142.00	620.00	4.00	0.889	0.251	-553.32	0.296	-523.93	161.81	7.10	2.30	25.51	393.43	1.37	7.33	0.426	0.0339	0.388
144.00	715.00	3.90	0.866	0.254	-546.08	0.296	-523.67	154.61	7.10	2.28	25.29	391.59	1.35	7.01	0.420	0.0318	0.388
146.00	810.00	3.80	0.842	0.257	-538.62	0.296	-523.51	147.77	7.09	2.25	25.07	389.62	1.32	6.70	0.414	0.0296	0.388
148.00	905.00	3.71	0.820	0.260	-530.96	0.295	-523.45	141.24	7.09	2.23	24.84	387.89	1.30	6.41	0.409	0.0275	0.388
150.00	1000.00	3.62	0.798	0.263	-523.10	0.294	-523.50	135.03	7.09	2.20	24.60	386.04	1.27	6.14	0.403	0.0256	0.388
		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels			

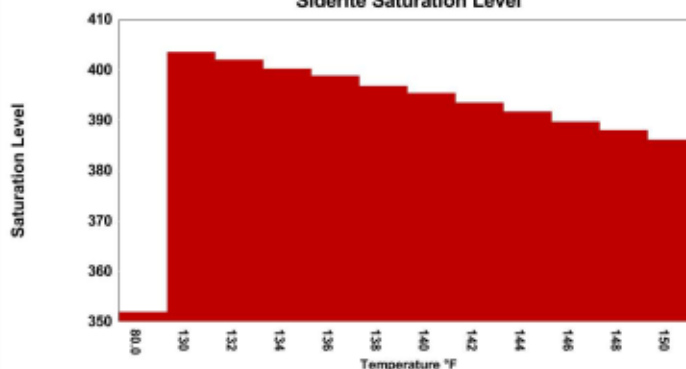
Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO₃}/K_{sp}. CO₂ (mole %) refers to CO₂ in the gas phase.

Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.

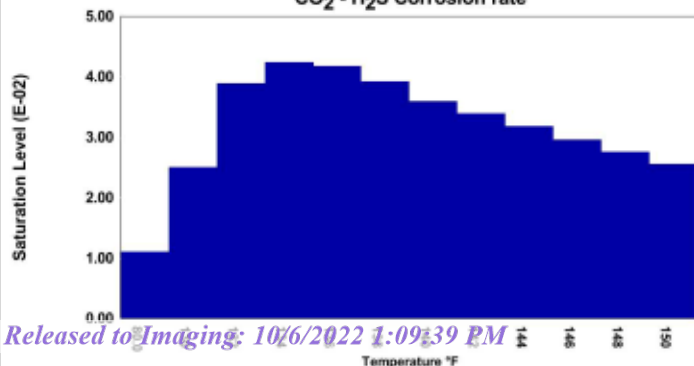
Barite Saturation Level



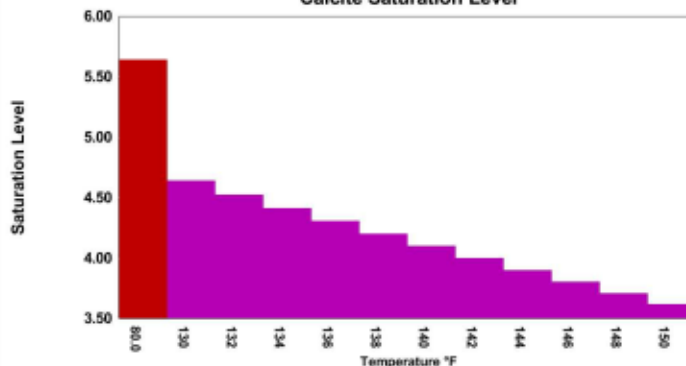
Siderite Saturation Level



CO₂ - H₂S Corrosion rate



Calcite Saturation Level



Brine Chemistry Evaluation

SYSTEM IDENTIFICATION

Company: Enduring Resources
 Lease/Unit: WLU 761H
 Sample Location: Separator
 Submitted By: Kenny Wood
 Sales Representative: Kenny Wood
 Analyst: Lindsey Kelleher
 Lab Entry Date: 06-16-2022

Sample ID#: 0
 ID: 220616006

Sample Date: 06-15-2022 at 0000□Ntp`
 Report Date: 06-20-2022

WATER CHEMISTRY

CATIONS

Calcium(as Ca) 225.14
 Magnesium(as Mg) 64.25
 Barium(as Ba) 13.89
 Strontium(as Sr) 50.42
 Sodium(as Na) **15455**
 Iron(as Fe) 26.79
 Manganese(as Mn) 0.730

ANIONS

Chloride(as Cl) 21842
 Sulfate(as SO₄) 2850
 Dissolved CO₂(as CO₂) 199.60
 Bicarbonate(as HCO₃) 976.00
 H₂S (as H₂S) 2.00

PARAMETERS

Temperature(°F) 80.00
 Sample pH 7.50
 Conductivity 55548
 T.D.S. 42409
 Resistivity 18.00
 Sp.Gr.(g/mL) 1.02

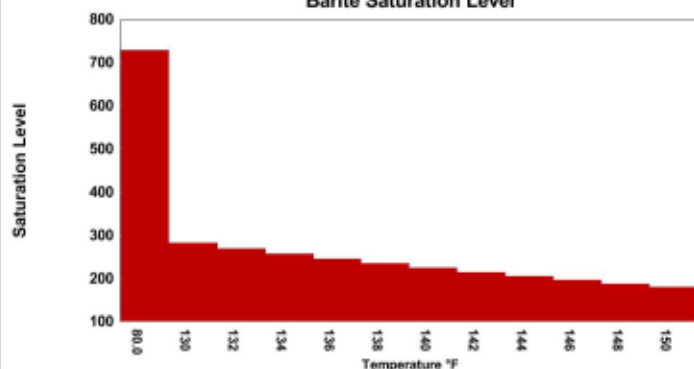
SCALE AND CORROSION POTENTIAL

Temp. (°F)	Press. (psia)	Calcite CaCO ₃		Anhydrite CaSO ₄		Gypsum CaSO ₄ *2H ₂ O		Barite BaSO ₄		Celestite SrSO ₄		Siderite FeCO ₃		Mackawenite FeS		CO ₂ (mpy)	CO ₂ mole %
80.00	14.70	4.20	1.98	0.112	-870.07	0.174	-672.19	728.42	8.42	2.12	19.70	851.49	3.01	57.68	0.546	0.0125	0.476
130.00	50.00	3.59	1.19	0.154	-644.18	0.194	-591.53	281.22	8.40	2.26	20.78	1017	1.92	20.64	0.516	0.0286	0.476
132.00	145.00	3.50	1.16	0.156	-638.51	0.194	-590.39	268.53	8.40	2.24	20.62	1014	1.89	19.75	0.513	0.0443	0.476
134.00	240.00	3.42	1.13	0.157	-632.54	0.194	-589.35	256.48	8.40	2.21	20.44	1011	1.85	18.88	0.509	0.0483	0.476
136.00	335.00	3.34	1.10	0.158	-626.31	0.194	-588.40	245.00	8.40	2.19	20.27	1009	1.82	18.07	0.506	0.0476	0.476
138.00	430.00	3.26	1.07	0.160	-619.81	0.193	-587.53	234.09	8.39	2.17	20.09	1005	1.79	17.28	0.503	0.0447	0.476
140.00	525.00	3.18	1.04	0.161	-613.07	0.193	-586.76	223.71	8.39	2.15	19.91	1001	1.76	16.54	0.500	0.0409	0.476
142.00	620.00	3.11	1.01	0.163	-606.09	0.193	-586.09	213.82	8.39	2.12	19.72	997.53	1.73	15.82	0.497	0.0386	0.476
144.00	715.00	3.03	0.980	0.165	-598.90	0.193	-585.51	204.42	8.39	2.10	19.53	993.47	1.70	15.14	0.493	0.0362	0.476
146.00	810.00	2.96	0.952	0.167	-591.50	0.193	-585.02	195.44	8.39	2.08	19.34	990.06	1.67	14.50	0.490	0.0338	0.476
148.00	905.00	2.89	0.924	0.169	-583.90	0.192	-584.64	186.90	8.39	2.06	19.15	986.30	1.64	13.88	0.486	0.0314	0.476
150.00	1000.00	2.82	0.896	0.171	-576.12	0.192	-584.35	178.76	8.38	2.04	18.95	982.20	1.61	13.29	0.483	0.0292	0.476
		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels			

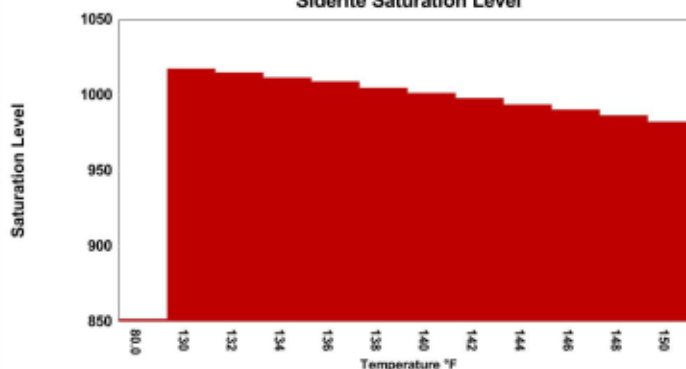
Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO₃}/K_{sp}. CO₂ (mole %) refers to CO₂ in the gas phase.

Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.

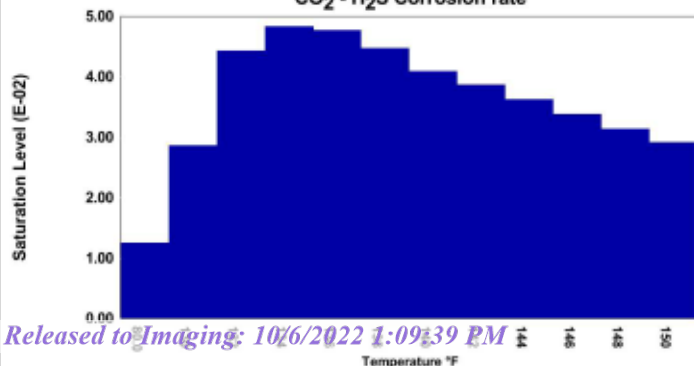
Barite Saturation Level



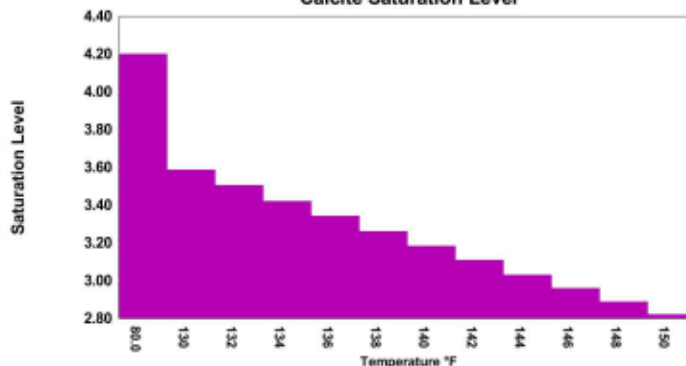
Siderite Saturation Level



CO₂ - H₂S Corrosion rate



Calcite Saturation Level



ENCLOSURE F: SAMPLE POINT LOOKOUT FORMATION GROUNDWATER ANALYTICAL RESULTS

BJ SERVICES COMPANY
WATER ANALYSIS #FW01W027
FARMINGTON LAB

GENERAL INFORMATION

OPERATOR:	DUGAN PRODUCTION	DEPTH:	
WELL:	SANCHEZ O'BRIEN #1	DATE SAMPLED:	12/03/97
FIELD:	SEC.6/T24N/R9W	DATE RECEIVED:	12/03/97
SUBMITTED BY:	JOHN ALEXANDER	COUNTY:	SAN JUAN
WORKED BY:	D. SHEPHERD	STATE:	NM
PHONE NUMBER:		FORMATION:	MESAVERDE

SAMPLE DESCRIPTION

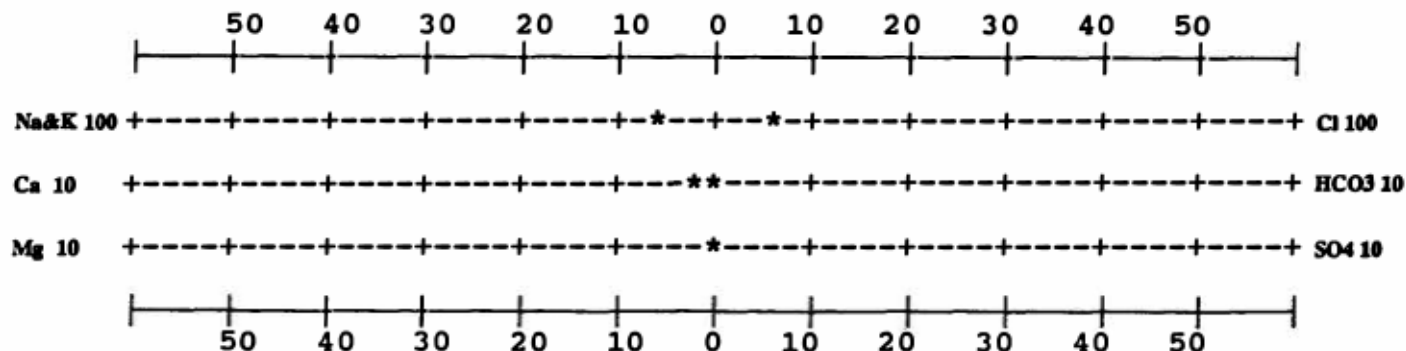
SWAB SAMPLE AFTER 200 BBL.

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY:	1.025	@ 76°F	PH:	7.23
RESISTIVITY (MEASURED):	0.160	ohms @ 76°F		
IRON (FE++) :	3 ppm	SULFATE:		0 ppm
CALCIUM:	336 ppm	TOTAL HARDNESS		1,074 ppm
MAGNESIUM:	57 ppm	BICARBONATE:		548 ppm
CHLORIDE:	22,137 ppm	SODIUM CHLORIDE (Calc)		36,415 ppm
SODIUM+POTASS:	14,065 ppm	TOT. DISSOLVED SOLIDS:		37,823 ppm
H2S: NO TRACE		POTASSIUM (PPM):		84

REMARKS

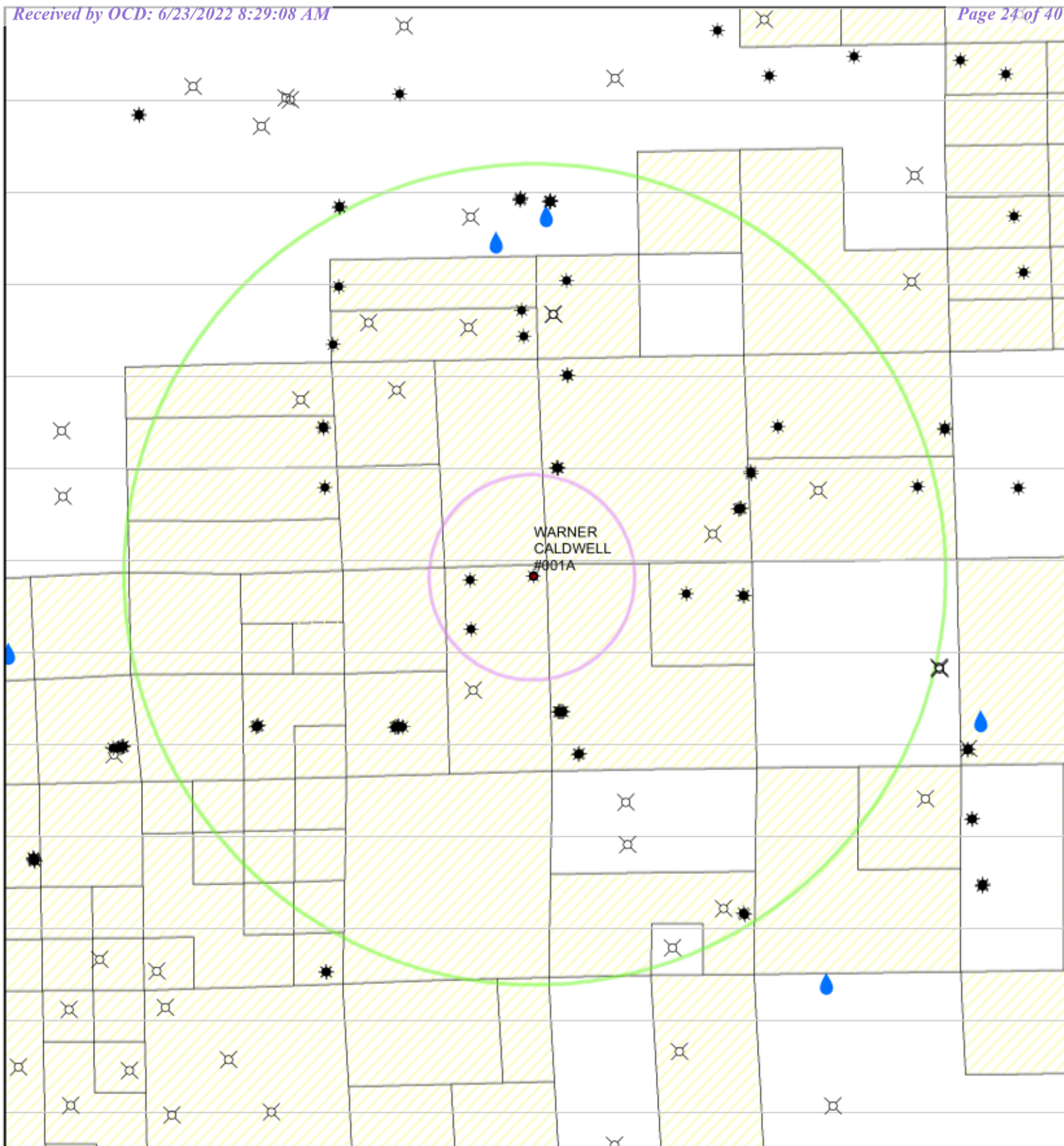
STIFF TYPE PLOT (IN MEQ/L)



ANALYST

D. SHEPHERD

ENCLOSURE G: MAP OF WELL LOCATION AND NEAREST WELLS



Warner Caldwell Area of Review

- Active
- Plugged (site released)
- Temporary Abandonment
- OSE Points of Diversion
- 1/2 Mile Buffer
- 2 Mile Buffer
- Leases



**ENDURING
RESOURCES, LLC**

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



Released to Imaging: 10/6/2022 1:09:39 PM

Miles
2

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US

Author: drogers

Date: 4/25/2022

ENCLOSURE H: PROOF OF NOTIFICATION

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

06/16/2022

Well Name: WARNER-CALDWELL**Well Location:** T23N / R8W / SEC 8 /
NENE / 36.248072 / -107.696877**County or Parish/State:** SAN
JUAN / NM**Well Number:** 1A**Type of Well:** OIL WELL**Allottee or Tribe Name:****Lease Number:** NMNM109399**Unit or CA Name:****Unit or CA Number:****US Well Number:** 3004535505**Well Status:** Temporarily Abandoned**Operator:** ENDURING
RESOURCES LLC

Notice of Intent

Sundry ID: 2677414**Type of Submission:** Notice of Intent**Type of Action:** Convert to Injection or Disposal Well**Date Sundry Submitted:** 06/16/2022**Time Sundry Submitted:** 02:09**Date proposed operation will begin:** 07/16/2022

Procedure Description: Enduring Resources, LLC (Enduring) intends to complete the necessary downhole and surface work to convert the Warner Caldwell 1A to a saltwater disposal well. This wellbore was originally drilled, and fracture treated in the Gallup by Logos Operating in March of 2014. This well was Temporarily Abandoned (TA) in April 2017 and has remained in TA status since. Enduring intends to pull the currently installed tubing and install an injection packer and polylined tubing. A mechanical integrity test will be conducted prior to injection. An application for authorization to inject (form C-108) will be filed with the New Mexico Oil Conservation Division for the Warner Caldwell 1A/ Procedure below outlines the planned downhole work to prepare the wellbore for MIT and ultimately produced water injection. All surface facility work will be limited to existing disturbance. See attached procedure.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Warner_Caldwell_1A___Disposal_Conversion_Procedure_20220616140553.pdf

Well Name: WARNER-CALDWELL**Well Location:** T23N / R8W / SEC 8 /
NENE / 36.248072 / -107.696877**County or Parish/State:** SAN
JUAN / NM**Well Number:** 1A**Type of Well:** OIL WELL**Allottee or Tribe Name:****Lease Number:** NMNM109399**Unit or CA Name:****Unit or CA Number:****US Well Number:** 3004535505**Well Status:** Temporarily Abandoned**Operator:** ENDURING
RESOURCES LLC**Operator**

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: KHEM SUTHIWAN**Signed on:** JUN 16, 2022 02:05 PM**Name:** ENDURING RESOURCES LLC**Title:** Regulatory Manager**Street Address:** 6300 S WAY SUITE 525**City:** DENVER**State:** CO**Phone:** (303) 350-5721**Email address:** KSUTHIWAN@ENDURINGRESOURCES.COM**Field****Representative Name:****Street Address:****City:****State:****Zip:****Phone:****Email address:**

WARNER CALDWELL #001A

30-045-35505

San Juan Co., NM

348' FNL, 331' FEL, Sec. 8, T23N, R08W

36.247927°N, 107.702401°W

CONVERSION TO SALTWATER DISPOSAL



ENDURING RESOURCES, LLC

PROCEDURE:

1. Hold PJSM prior to beginning any operations. Ensure all onsite personnel abide by Enduring HSE protocol.
2. Comply with all NMOCD and BLM safety and environmental regulations.
3. Conduct safety meeting with all personnel and MIRU rig
4. Well is TA'd – ensure 0 psi casing pressure
5. Pressure test 5-1/2" casing to 1,000 psi
6. Unload and tally 2-7/8" PH-6 workstring
7. NU BOPE and test.
8. P/U BHA, TIH and drill out Baker CIBP @ 4975'
9. TIH and drill out Baker CIBP @ 5025'
10. TIH and tag fill (PBSD @ 6125')
11. TOOH standing back tbg
12. TIH with 2-7/8" tbg and 5-1/2" casing scraper to 5915'. POOH. LD scraper.
13. TIH with 5-1/2" CIBP on 2-7/8" tubing & set CIBP @ 5892' (50' above Greenhorn perms).
14. MIRU cementers. Pump 12sx cement above CIBP f/ 5892' t/ 5792'. TOOH.
15. TIH with 5-1/2" CIBP on 2-7/8" tubing & set CIBP @ 5024' (50' above Gallup perms).
16. Pump 12sx cement above CIBP f/ 5024' t/ 4924. TOOH.
17. TIH with 5-1/2" CIBP on 2-7/8" tubing & set CIBP @ 4437'.
18. Pump 12sx cement above CIBP f/ 4437' t/ 4337' (200' below planned injection perms). TOOH.
19. Rig up perforators. TIH and perforate the Point Lookout f/ 4137' t/ 3982'. TOOH.
20. PU AS1-X packer and RIH with 2-7/8" tubing with sub, packer, on/off tool and land packer 50' above top Point Lookout perforation @ 3932'.
21. Set packer and test tubing/casing annulus to 500 psi for 10 minutes. Bleed casing pressure.
22. Rig up acidizing crew. Pump 1,500 gal 15% HCl. Flush tubing and release acid crew.
23. Pull out of on/off tool, and POOH laying down tubing.
24. PU and TIH with 2-7/8" plastic lined tubing to packer @ 3932' and function test on/off tool.
25. Pull out of on/off tool and displace wellbore with packer fluid.
26. Latch onto on/off tool and chart official MIT with NMOCD witness on-site (provide inspector with 24 hour notification prior to chart recording).
27. NDBOP, NUWH and set tree for injection.
28. Establish initial injection rate to ensure well is taking fluid using no more than 50 bbl.
29. RDMO



ENDURING RESOURCES, LLC

6300 S Syracuse Way, Suite 525 Centennial, CO 80111
Farmington Field Office: 505.636.9720 | Main Office: 303.573.1222

June 21, 2022

Via Certified Mail (Article 7011 1150 0002 1205 2428)

Federal Indian Minerals Office
6251 College Blvd, Suite A
Farmington, NM 87402

Re: Warner Caldwell 001A
API No. 30-045-35505
San Juan County, NM

To Whom it May Concern:

Enduring Resources, LLC (Enduring) is applying (C-108 Application enclosed) to convert its Warner Caldwell 001A well into a Salt Water Disposal Well. The subject well was initially drilled in 2014 by LOGOS Resources, LLC to target the Gallup Formation for oil and gas development.

Pursuant to Section 19.15.26 of the New Mexico Administrative Code, this letter serves as formal notice of the SWD conversion. No action is needed unless you have any questions or objections.

- Well Name: Warner Caldwell 001A
- API: 30-045-35505
- Location: A-08, T23N-R08W
- Injection Interval: 3,982' to 4,137'
- Proposed Disposal Zone: Point Lookout (Pool Code: 96160)
- Applicant Name: Enduring Resources, LLC
- Applicant Address: 6300 S Syracuse Way, Suite 525, Centennial, CO 80111

If you have any questions or concerns, please contact the undersigned using the information provided below.

Sincerely,

Khem Suthiwan
Regulatory Manager
Enduring Resources, LLC
303.350.5721 – Office
720.662.5218 – Cell



ENDURING RESOURCES, LLC

6300 S Syracuse Way, Suite 525 Centennial, CO 80111
Farmington Field Office: 505.636.9720 | Main Office: 303.573.1222

June 21, 2022

Via Certified Mail (Article 7012 3460 0002 1805 1248)

LOGOS Resources, LLC
2010 Afton Place
Farmington, NM 87401

Re: Warner Caldwell 001A
API No. 30-045-35505
San Juan County, NM

To Whom it May Concern:

Enduring Resources, LLC (Enduring) is applying (C-108 Application enclosed) to convert its Warner Caldwell 001A well into a Salt Water Disposal Well. The subject well was initially drilled in 2014 by LOGOS Resources, LLC to target the Gallup Formation for oil and gas development.

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Sincerely,

Khem Suthiwan
Regulatory Manager
Enduring Resources, LLC
303.350.5721 – Office
720.662.5218 – Cell

Farmington Daily Times

PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0005305555

This is not an invoice

SUTHIWAN KHEM
6300 S SYRACUSE WAY
SUITE 525
CENTENNIAL, CO 80111

I, being duly sworn say: Farmington Daily Times, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the State of New Mexico for publication and appeared in the internet at The Daily Times web site on the following days(s):

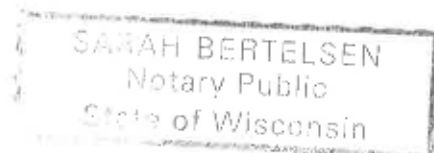
06/20/2022

Marlene Verlage
Legal Clerk

Subscribed and sworn before me this June 22, 2022:

Sarah Bertelsen
State of WI, County of Brown
NOTARY PUBLIC

7/27/25
My commission expires



Ms. Khem Suthiwan, Regulatory Manager at Enduring Resources, LLC, 200 Energy Court, Farmington, New Mexico 87401 (303-350-5721), wishes to provide notification for the submittal of an Application for Authorization to Inject to the New Mexico Oil Conservation Division (NMOCD). The application requests the use of existing well Warner Caldwell 001A, permitted with the New Mexico Oil Conservation Division, for the use as a Class II injection well. The well is located in San Juan County, New Mexico at latitude 36.248085°N longitude -107.6968689°W. This well will be used to inject fluids produced from the enhanced recovery of oil and/or natural gas in the San Juan Basin. Fluids will be injected into the Point Lookout Formation at depths between 3,982 feet and 4,137 feet below ground surface. Maximum injection rates and pressures are anticipated to be 1130 barrels of water per day, respectively. Interested parties may contact the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

#5305555, Daily Times, June 20, 2022

Ad # 0005305555
PO #: Legal Notice
of Affidavits: 1

This is not an invoice

DISTRICT I
1425 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (505) 748-1283 Fax: (505) 748-8720

DISTRICT III
1000 Rio Brazos Rd., Artesia, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

JAN 14 2014

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

Farmington Field Office
Bureau of Land Management ☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35505	*Pool Code 47540	*Pool Name NAGEEZI GALLUP
*Property Code 40413	*Property Name WARNER - CALDWELL	*Well Number 1A
*GRID No. 289408	*Operator Name LOGOS OPERATING, LLC	*Elevation 6857'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	23-N	8-W		348	NORTH	331	EAST	SAN JUAN

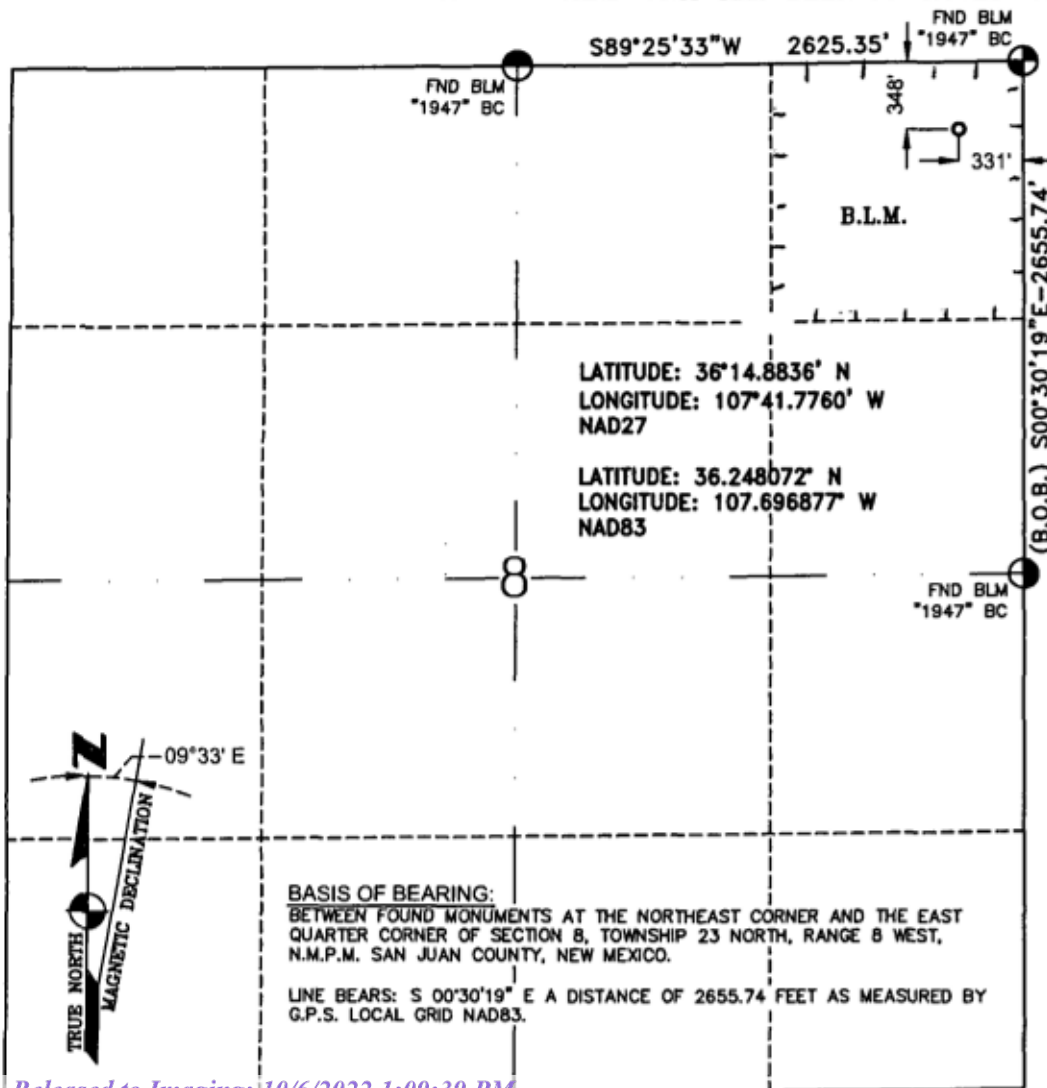
11 Bottom Hole Location If Different From Surface

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

*Dedicated Acres 40 ACRES	*Joint or Infill NE/NE 8	*Consolidation Code	*Order No.
------------------------------	-----------------------------	---------------------	------------

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

16



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 a working interest, or to a subsidiary pooling agreement or a compulsory pooling order heretofore entered by the division.

Tamra Sessions 1/13/14
Signature Date
Printed Name
tsessions@logosresourcesllc.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 and correct to the best of my belief.

SEPTEMBER 5, 2013

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

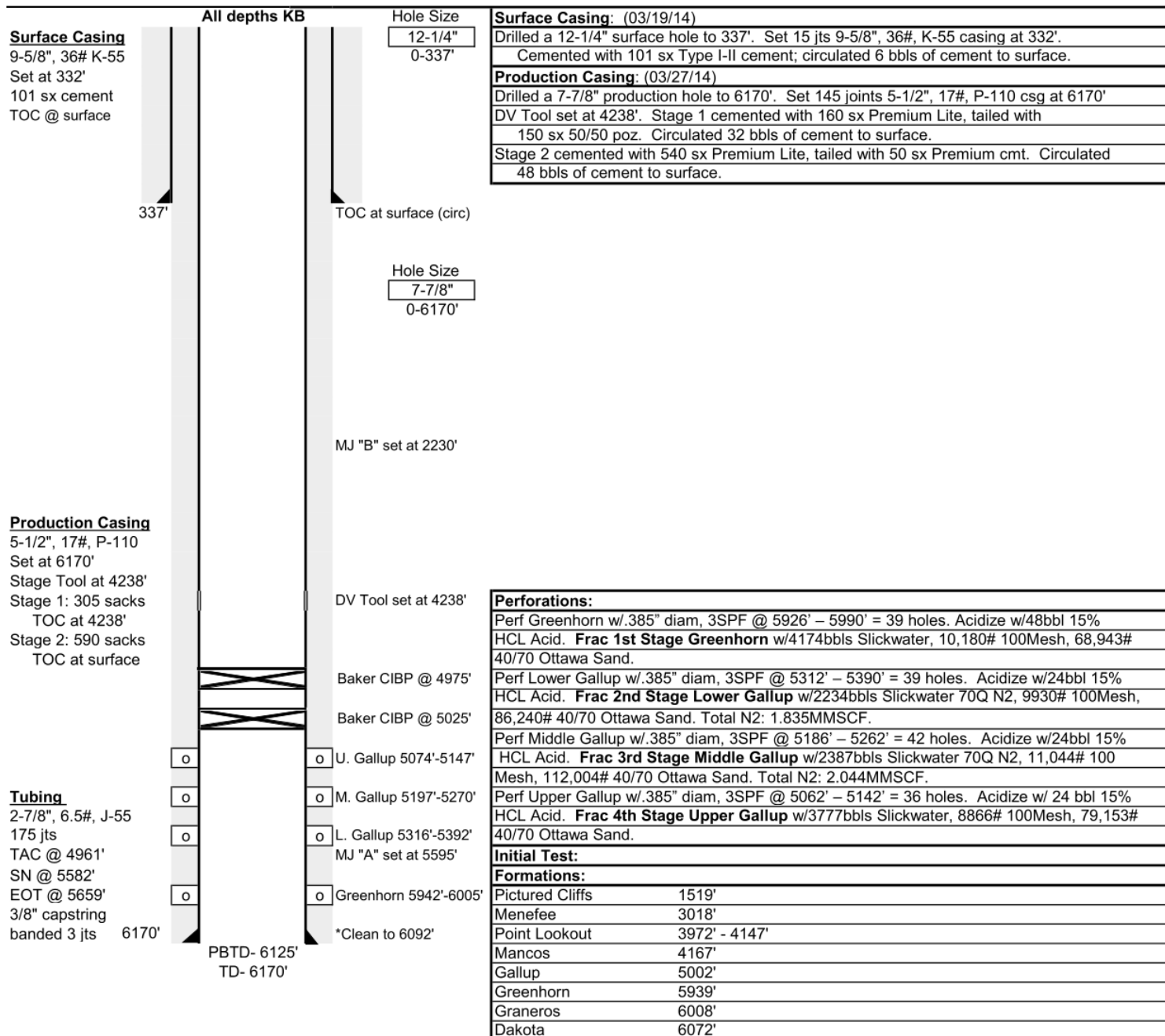
Certificate Number

15703

Wellbore Schematic

Well Name: Warner-Caldwell #1A
 Location: 348' FNL, 331' FEL, Section 8, T23N, R08W
 County: San Juan
 API #: 30-045-35505
 Co-ordinates: LAT: 36.247927° N LONG: 107.702401° W
 Elevations: GROUND: 6857'
 KB: 6870'
 Depths (KB): PBDT: 6125'
 TD: 6170'

Date Prepared: 3/28/2014
 Last Updated: 6/13/2022 SAO
 Spud Date: 3/19/2014
 Completion Date: 4/3/2014
 Last Workover Date: 6/5/2014



Farmington Daily Times

PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0005305555

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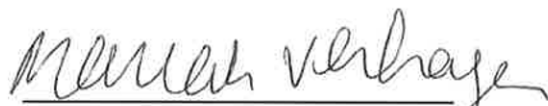
SUTHIWAN KHEM
6300 S SYRACUSE WAY
SUITE 525
CENTENNIAL, CO 80111

I, being duly sworn say: Farmington Daily Times, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the State of New Mexico for publication and appeared in the internet at The Daily Times web site on the following days(s):

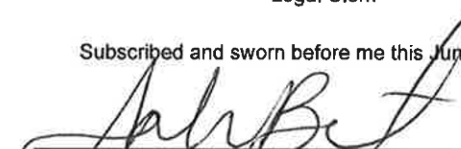
06/20/2022

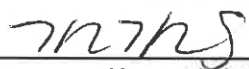
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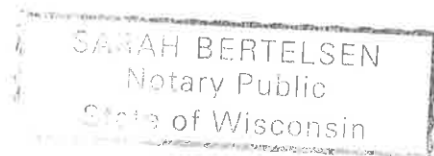
#5305555, Daily Times, June 20, 2022


Legal Clerk

Subscribed and sworn before me this June 22, 2022:

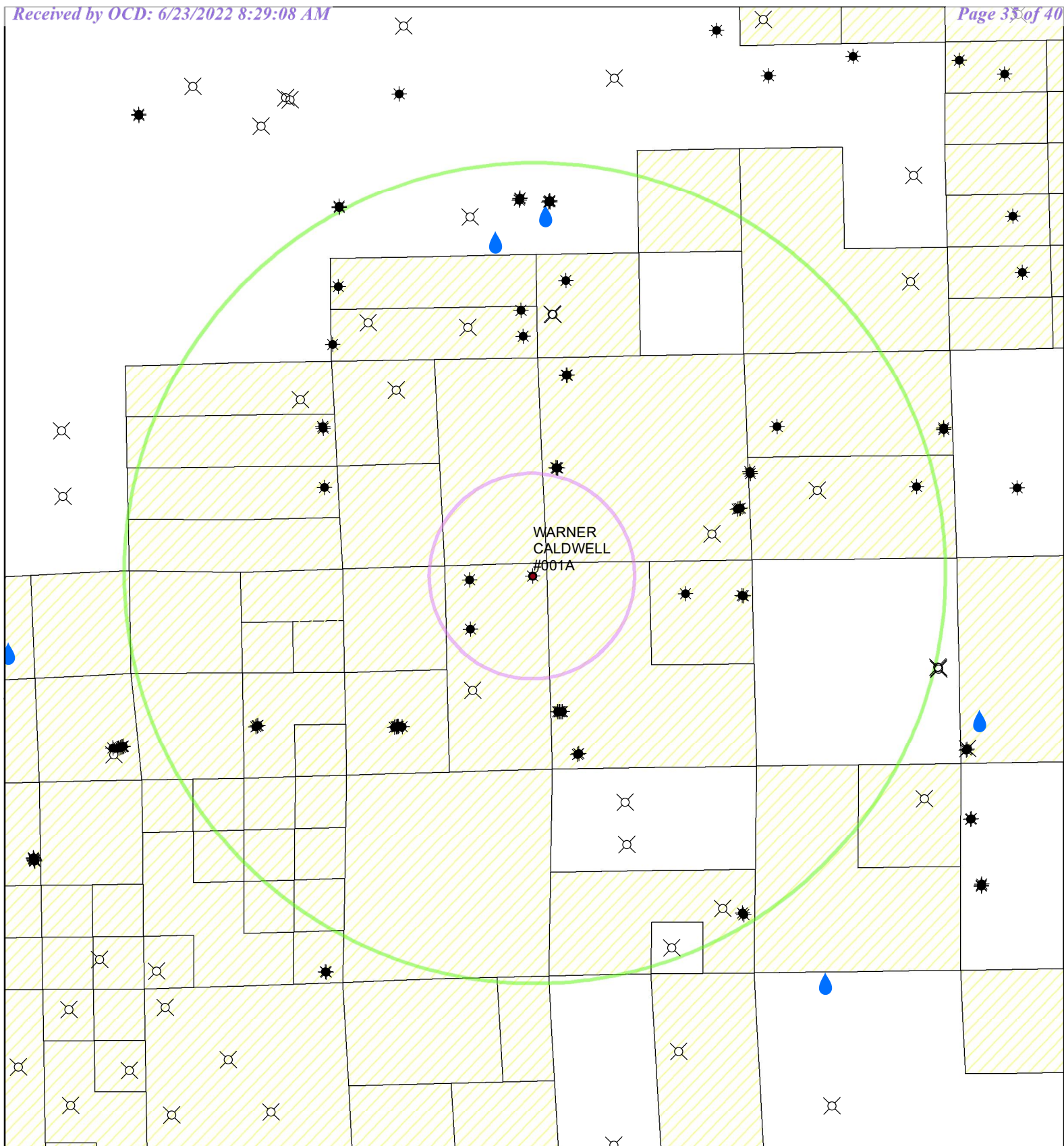

State of WI, County of Brown
NOTARY PUBLIC


My commission expires



Ad # 0005305555
PO #: Legal Notice
of Affidavits: 1

This is not an invoice

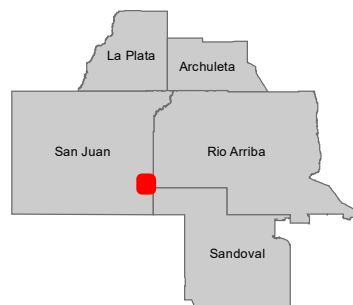


Warner Caldwell Area of Review

- Active
- Plugged (site released)
- Temporary Abandonment
- OSE Points of Diversion
- Half Mile Buffer
- 2 Mile Buffer
- Leases

0.5 Miles

2



**ENDURING
RESOURCES, LLC**

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

Wells located within 1/2 mile radius of proposed SWD well (Warner Caldwell 001A)														
Count	API	Name	Type Code	Type	Status	OGRID	County	ULSTR	Footage	Plug Date	Point Lookout Penetration	Spud Date	Measured Depth	True Vertical Depth
1	30-045-35505	WARNER CALDWELL #001A	O	Oil	Temporary Abandonment	372286	San Juan	A-08-23N-08W	348 FNL 331 FEL	N/A	Yes, Proposed Well	3/19/2014	6170'	6125'
2	30-045-35506	WARNER CALDWELL #003B	O	Oil	Active	372286	San Juan	B-08-23N-08W	384 FNL 1960 FEL	N/A	Yes, Proposed Well	3/10/2014	6155'	6095'
3	30-045-35422	LOGOS #006	G	Gas	Active	372286	San Juan	G-08-23N-08W	1662 FNL 1973 FEL	N/A	Yes, Active	2/6/2013	6230'	6175'
4	30-045-35643	MC 4 COM #285H	O	Oil	Active	372286	San Juan	A-08-23N-08W	328 FNL 334 FEL	N/A	Yes, Active	3/10/2015	10437'	10388'
Wells located within 2 mile radius of proposed SWD well (Warner Caldwell 001A)														
Count	API	Name	Type Code	Type	Status	OGRID	County	ULSTR	Footage	Plug Date	Point Lookout Penetration	Spud Date	Measured Depth	True Vertical Depth
1	30-045-35748	W LYBROOK UNIT #705H	O	Oil	Active	372286	San Juan	O-07-23N-08W	1344 FSL 2233 FEL	N/A	Yes, Active	3/16/2017	10760	5097
2	30-045-35750	W LYBROOK UNIT #745H	O	Oil	Active	372286	San Juan	O-07-23N-08W	1333 FSL 2250 FEL	N/A	Yes, Active	3/15/2017	15002	5018
3	30-045-35751	W LYBROOK UNIT #746H	O	Oil	Active	372286	San Juan	O-07-23N-08W	1311 FSL 2284 FEL	N/A	Yes, Active	3/14/2017	13854	4991
4	30-045-35451	ESCRITO L32 2408 #001H	G	Gas	Active	371838	San Juan	L-32-24N-08W	1900 FSL 226 FWL	N/A	Yes, Active	9/24/2014	10425	0
5	30-045-35521	ESCRITO M32 2408 #001H	G	Gas	Active	371838	San Juan	M-32-24N-08W	414 FSL 60 FWL	N/A	Yes, Active	10/7/2014	10520	0
6	30-045-35639	CHACO 2308 061 #397H	O	Oil	Active	372286	San Juan	I-06-23N-08W	2100 FSL 325 FEL	N/A	Yes, Active	3/21/2015	10395	10368
7	30-045-24190	NEW MEXICO STATE #002	O	Oil	Plugged (site released)	371838	San Juan	M-32-24N-08W	950 FSL 980 FWL	6/13/2018	Yes, Active	7/20/1980	5435	
8	30-045-35809	W LYBROOK UNIT #711H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1205 FSL 1327 FWL	N/A	Yes, Active	12/15/2016	13520	5191
9	30-045-35554	CHACO 2308 06H #396H	O	Oil	Active	372286	San Juan	H-06-23N-08W	1737 FNL 276 FEL	N/A	Yes, Active	8/21/2014	10721	10631
10	30-045-24201	PRE-ONGARD WELL #021	O	Oil	Plugged (site released)	214263	San Juan	C-05-23N-08W	790 FNL 1650 FWL	4/27/1989	Yes, Active	3/16/1980	0	6405
11	30-045-24213	FEDERAL 6 #041	O	Oil	Plugged (site released)	14538	San Juan	A-06-23N-08W	990 FNL 830 FEL	5/12/1995	Yes, Active	2/28/1980	99999	6440
12	30-045-35728	W LYBROOK UNIT #704H	O	Oil	Active	372286	San Juan	M-08-23N-08W	1199 FSL 1287 FWL	N/A	Yes, Active	12/9/2016	11623	5075
13	30-045-35727	W LYBROOK UNIT #703H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1212 FSL 1366 FWL	N/A	Yes, Active	12/6/2016	12697	5189
14	30-045-35808	W LYBROOK UNIT #713H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1215 FSL 1386 FWL	N/A	Yes, Active	12/14/2016	11996	5203
15	30-045-35553	CHACO 2308 06H #395H	O	Oil	Active	372286	San Juan	H-06-23N-08W	1687 FNL 291 FEL	N/A	Yes, Active	8/20/2014	10653	10553
16	30-045-25010	NEW MEXICO STATE #003	O	Oil	Plugged (site released)	371838	San Juan	G-32-24N-08W	1650 FNL 1650 FEL	11/8/2018	Yes, Active	5/11/1981	5700	5100
17	30-045-35730	W LYBROOK UNIT #744H	O	Oil	Active	372286	San Juan	M-08-23N-08W	1202 FSL 1307 FWL	N/A	Yes, Active	12/8/2016	10580	5704
18	30-045-35912	KTB 2408 32A COM #002H	O	Oil	Active	289408	San Juan	A-32-24N-08W	1205 FNL 360 FEL	N/A	Yes, Active	5/14/2019	11465	5519
19	30-045-35491	CHACO 2408 32P #115H	O	Oil	Active	372286	San Juan	P-32-24N-08W	537 FSL 329 FEL	N/A	Yes, Active	9/30/2013	10541	10415
20	30-045-35729	W LYBROOK UNIT #743H	O	Oil	Active	372286	San Juan	N-08-23N-08W	1209 FSL 1346 FWL	N/A	Yes, Active	12/7/2016	9816	5124
21	30-045-23524	NEW MEXICO STATE #001	O	Oil	Plugged (site released)	371838	San Juan	O-32-24N-08W	790 FSL 1750 FEL	12/2/2015	Yes, Active	5/16/1979	6521	6521
22	30-045-35605	MC 5 COM #112H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1276 FNL 405 FWL	N/A	Yes, Active	12/9/2014	13156	5570
23	30-045-35505	WARNER CALDWELL #001A	O	Oil	Temporary Abandonment	372286	San Juan	A-08-23N-08W	348 FNL 331 FEL	N/A	Yes, Active	3/19/2014	6170	6125
24	30-045-35913	KTB 2408 32A COM #003H	O	Oil	Active	289408	San Juan	A-32-24N-08W	1232 FNL 374 FEL	N/A	Yes, Active	5/15/2019	11514	5502
25	30-045-35506	WARNER CALDWELL #003B	O	Oil	Active	372286	San Juan	B-08-23N-08W	384 FNL 1960 FEL	N/A	No, Active	3/10/2014	6155	6095
26	30-045-35422	LOGOS #006	G	Gas	Active	372286	San Juan	G-08-23N-08W	1662 FNL 1973 FEL	N/A	Yes, Active	2/6/2013	6230	6175
27	30-045-35615	MC 1 COM #458H	O	Oil	Active	372286	San Juan	D-04-23N-08W	484 FNL 755 FWL	N/A	Yes, Active	1/14/2015	10685	10602
28	30-045-35602	MC 5 COM #113H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1304 FNL 372 FWL	N/A	Yes, Active	11/17/2014	10878	5531
29	30-045-35687	HEROS 2308 09L COM #002H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 240 FWL	N/A	Yes, Active	4/25/2018	10371	5290
30	30-045-35606	MC 5 COM #906H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1262 FNL 422 FWL	N/A	Yes, Active	12/11/2014	14155	5346
31	30-045-35848	HEROS 2308 09L COM #003H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 270 FWL	N/A	Yes, Active	4/26/2018	10325	5263
32	30-045-35441	CHACO 2408 32P #114H	O	Oil	Active	372286	San Juan	P-32-24N-08W	1203 FSL 382 FEL	N/A	Yes, Active	1/4/2013	10349	10317
33	30-045-35877	HEROS 2308 09L COM #005H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 330 FWL	N/A	Yes, Active	6/6/2018	10475	5257
34	30-045-35847	HEROS 2308 09L COM #004H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 300 FWL	N/A	Yes, Active	5/4/2018	10533	5227
35	30-045-20951	FEDERAL F #001	O	Oil	Plugged (site released)	23846	San Juan	J-08-23N-08W	2080 FSL 1960 FEL	8/15/2000	Yes, Active	10/5/1971	5291	5291
36	30-045-35608	MC 2 COM #283H	O	Oil	Active	372286	San Juan	L-04-23N-08W	2431 FSL 405 FWL	N/A	Yes, Active	2/5/2015	10455	10359
37	30-045-35627	MC 4 COM #459H	O	Oil	Active	372286	San Juan	L-04-23N-08W	2431 FSL 427 FWL	N/A	Yes, Active	2/3/2015	10554	10454
38	30-045-35607	MC 3 COM #284H	O	Oil	Active	372286	San Juan	L-04-23N-08W	2431 FSL 383 FWL	N/A	Yes, Active	2/9/2015	10395	10299
39	30-045-35643	MC 4 COM #285H	O	Oil	Active	372286	San Juan	A-08-23N-08W	328 FNL 334 FEL	N/A	Yes, Active	3/10/2015	10437	10388
40	30-045-35688	HEROS 2308 09L COM #001H	O	Oil	Active	289408	San Juan	L-09-23N-08W	1476 FSL 210 FWL	N/A	Yes, Active	1/21/2017	10592	5186
41	30-045-35601	MC 5 COM #119H	O	Oil	Active	372286	San Juan	D-33-24N-08W	1290 FNL 388 FWL	N/A	Yes, Active	11/19/2014	13485	5493
42	30-045-35616	MC 1 COM #282H	O	Oil	Active	372286	San Juan	D-04-23N-08W	480 FNL 777 FWL	N/A	Yes, Active	1/7/2015	10615	10531
43	30-045-35726	W LYBROOK UNIT #702H	O	Oil	Active	372286	San Juan	M-09-23N-08W	371 FSL 693 FWL	N/A	Yes, Active	2/9/2017	12214	5314
44	30-045-35725	W LYBROOK UNIT #701H	O	Oil	Active	372286	San Juan	M-09-23N-08W	371 FSL 693 FWL	N/A	Yes, Active	2/7/2017	10380	5338
45	30-045-35911	KTB 2408 32A COM #001H	O	Oil	Active	289408	San Juan	A-32-24N-08W	1179 FNL 346 FEL	N/A	No, Active	5/13/2019	0	0
46	30-045-13289	PRE-ONGARD WELL #004	O	Oil	Plugged (site released)	214263	San Juan	F-16-23N-08W	1980 FNL 1980 FWL	6/14/1957	Yes, Active	5/27/1957	0	5300
47	30-045-33696	SOUTH BLANCO FEDERAL 33 #	O	Oil	Active	372834	San Juan	L-33-24N-08W	1950 FSL 790 FWL	N/A	No, Active	11/3/2007	5926	5926
48	30-045-05076	PRE-ONGARD WELL #002	O	Oil	Plugged (site released)	214263	San Juan	O-16-23N-08W	660 FSL 2103 FEL	9/4/1958	Yes, Active	4/10/1955	0	6098
49	30-045-35678	CHACO 2408 33M #120H	O	Oil	Plugged (site released)	120782	San Juan	M-33-24N-08W	1087 FSL 428 FWL	7/18/2016	No, Active	5/18/2015	0	0
50	30-045-24520	FEDERAL 9 #031	O	Oil	Active	372834	San Juan	B-09-23N-08W	850 FNL 1700 FEL	N/A	Yes, Active	10/14/1980	5482	5482
51	30-045-24861	STATE OF NEW MEXICO 16 #0	O	Oil	Plugged (site released)	149052	San Juan	C-16-23N-08W	890 FNL 1920 FWL	11/10/2004	Yes, Active	4/30/1981	5508	5508
52	30-045-25281	STATE OF NEW MEXICO 16 #0	O	Oil	Plugged (site released)	149052	San Juan	I-16-23N-08W	1650 FSL 790 FEL	3/2/2011	Yes, Active	12/19/1981	5306	5306
53	30-045-35496	CHACO 2308 09A #145H	O	Oil	Active	372286	San Juan	A-09-23N-08W	917 FNL 240 FEL	N/A	Yes, Active	12/16/2013	10592	10488
54	30-045-35500	CHACO 2308 161 #148H	O	Oil	Active	372286	San Juan	I-16-23N-08W	1531 FSL 271 FEL	N/A	Yes, Active	2/3/2014	10360	10257
55	30-045-24519	FEDERAL 3 #023	O	Oil	Plugged (site released)	371838	San Juan	K-03-23N-08W	1760 FSL 1785 FWL	11/1/2018	Yes, Active	9/16/1980	5400	5400
56	30-045-35439	CHACO 2308 161 #147H	O	Oil	Active	372286	San Juan	I-16-23N-08W	1491 FSL 248 FEL	N/A	Yes, Active	2/20/2013	9751	9663
57	30-045-35587	CHACO 2308 04P #406H	O	Oil	Active	372286	San Juan	P-04-23N-08W	1323 FSL 208 FEL	N/A	Yes, Active	9/22/2014	10525	10434
58	30-045-35498	CHACO 2308 09A #146H	O	Oil	Active	372286	San Juan	A-09-23N-08W	1520 FSL 1025 FWL	N/A	Yes, Active	1/13/2014	10566	10490
59	30-045-35538	CHACO 2308 03L #405H	G	Gas	Active	372286	San Juan	L-03-23N-08W	2216 FSL 74 FWL	N/A	Yes, Active	7/8/2014	10419	10329
60	30-045-35539	CHACO 2308 03L #404H	O	Oil	Active	372286	San Juan	L-03-23N-08W	2268 FSL 70 FWL	N/A	Yes, Active	6/26/2014	10590	10502
61	30-045-35677	CHACO 2408 33M #121H	O	Oil	Plugged (site released)	120782	San Juan	M-33-24N-08W	1086 FSL 450 FWL	7/18/2016	No, Active	5/20/2015	304	304
62	30-045-35495	CHACO 2308 04P #149H	O	Oil	Active	372286	San Juan	P-04-23N-08W	790 FSL 1680 FWL	N/A	Yes, Active	1/20/2014	10651	10549
63	30-045-35588	CHACO 2308 03E #403H	O	Oil	Active	372286	San Juan	E-03-23N-08W	1906 FNL 817 FWL	N/A	Yes, Active	9/24/2014	10664	10555
64	30-045-35497	CHACO 2308 04P #150H	O	Oil	Active	372286	San Juan	P-04-23N-08W	1312 FSL 285 FEL	N/A	No, Active	1/22/2014	10521	10418
65	30-045-35423	LOGOS #005	G	Gas	Plugged (site released)	120782	San Juan	P-04-23N-08W	671 FSL 973 FEL	9/30/2016	Yes, Active	1/30/2013	6443	6390
66	30-045-25121	FEDERAL 3 #043	O	Oil	Active	372834	San Juan	I-03-23N-08W	1803 FSL 940 FEL	N/A	Yes, Active	1/22/1982	5700	5700

FW01W027

FARMINGTON LAB

OPERATOR: DUGAN PRODUCTION DEPTH:
WELL: SANCHEZ O'BRIEN #1 DATE SAMPLED: 12/03/97
FIELD: SEC.6/T24N/R9W DATE RECEIVED: 12/03/97
SUBMITTED BY: JOHN ALEXANDER COUNTY: SAN JUAN STATE: NM
WORKED BY : D. SHEPHERD FORMATION: MESAVERDE
PHONE NUMBER:

SWAB SAMPLE AFTER 200 BBL.

SPECIFIC GRAVITY:	1.025	@ 76°F	PH:	7.23
RESISTIVITY (MEASURED):	0.160	ohms @ 76°F		
IRON (FE++) :	3 ppm	SULFATE:		0 ppm
CALCIUM:	336 ppm	TOTAL HARDNESS		1,074 ppm
MAGNESIUM:	57 ppm	BICARBONATE:		548 ppm
CHLORIDE:	22,137 ppm	SODIUM CHLORIDE(Calc)		36,415 ppm
SODIUM+POTASS:	14,065 ppm	TOT. DISSOLVED SOLIDS:		37,823 ppm
H2S: NO TRACE		POTASSIUM (PPM):		84

REMARKS

D. SHEPHERD

Brine Chemistry Evaluation

SYSTEM IDENTIFICATION

Company: Enduring Resources
 Lease/Unit: WLU 729H
 Sample Location: Separator
 Submitted By: Kenny Wood
 Sales Representative: Kenny Wood
 Analyst: Lindsey Kelleher
 Lab Entry Date: 06-16-2022

Sample ID#: 0
 ID: 220616007

Sample Date: 06-15-2022 at 0000□Ntp`·
 Report Date: 06-20-2022

WATER CHEMISTRY

CATIONS

Calcium(as Ca)	367.45
Magnesium(as Mg)	93.45
Barium(as Ba)	11.72
Strontium(as Sr)	60.87
Sodium(as Na)	16753
Iron(as Fe)	13.86
Manganese(as Mn)	0.770

ANIONS

Chloride(as Cl)	24269
Sulfate(as SO ₄)	2850
Dissolved CO ₂ (as CO ₂)	149.70
Bicarbonate(as HCO ₃)	793.00
H ₂ S (as H ₂ S)	2.00

PARAMETERS

Temperature(°F)	80.00
Sample pH	7.50
Conductivity	60860
T.D.S.	45873
Resistivity	16.43
Sp.Gr.(g/mL)	1.03

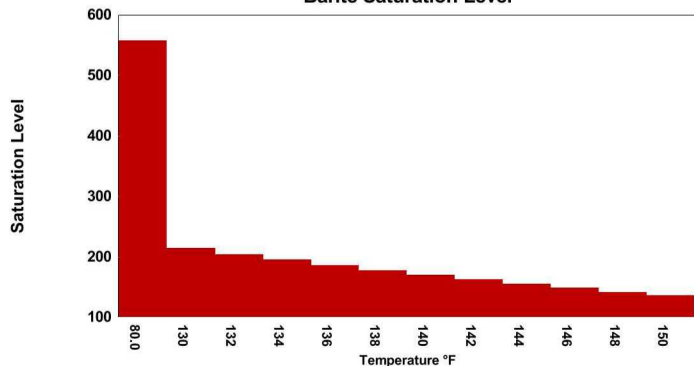
SCALE AND CORROSION POTENTIAL

Temp. (°F)	Press. (psia)	Calcite CaCO ₃		Anhydrite CaSO ₄		Gypsum CaSO ₄ *2H ₂ O		Barite BaSO ₄		Celestite SrSO ₄		Siderite FeCO ₃		Mackawenite FeS		CO ₂ (mpy)	CO ₂ mole %
80.00	14.70	5.64	1.78	0.174	-822.48	0.269	-607.74	557.30	7.13	2.32	25.70	351.82	2.50	28.10	0.523	0.0110	0.388
130.00	50.00	4.64	1.04	0.239	-591.23	0.298	-527.45	213.48	7.11	2.46	26.76	403.48	1.53	9.62	0.458	0.0250	0.388
132.00	145.00	4.52	1.01	0.240	-585.61	0.298	-526.62	203.76	7.11	2.43	26.56	401.89	1.50	9.19	0.453	0.0388	0.388
134.00	240.00	4.41	0.988	0.242	-579.69	0.298	-525.88	194.53	7.10	2.41	26.36	400.17	1.48	8.78	0.447	0.0424	0.388
136.00	335.00	4.31	0.963	0.244	-573.56	0.297	-525.30	185.66	7.10	2.38	26.15	398.71	1.45	8.40	0.442	0.0418	0.388
138.00	430.00	4.20	0.937	0.246	-567.06	0.297	-524.75	177.31	7.10	2.35	25.94	396.70	1.42	8.02	0.437	0.0392	0.388
140.00	525.00	4.10	0.914	0.249	-560.32	0.297	-524.29	169.37	7.10	2.33	25.73	395.33	1.40	7.67	0.431	0.0359	0.388
142.00	620.00	4.00	0.889	0.251	-553.32	0.296	-523.93	161.81	7.10	2.30	25.51	393.43	1.37	7.33	0.426	0.0339	0.388
144.00	715.00	3.90	0.866	0.254	-546.08	0.296	-523.67	154.61	7.10	2.28	25.29	391.59	1.35	7.01	0.420	0.0318	0.388
146.00	810.00	3.80	0.842	0.257	-538.62	0.296	-523.51	147.77	7.09	2.25	25.07	389.62	1.32	6.70	0.414	0.0296	0.388
148.00	905.00	3.71	0.820	0.260	-530.96	0.295	-523.45	141.24	7.09	2.23	24.84	387.89	1.30	6.41	0.409	0.0275	0.388
150.00	1000.00	3.62	0.798	0.263	-523.10	0.294	-523.50	135.03	7.09	2.20	24.60	386.04	1.27	6.14	0.403	0.0256	0.388
		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels			

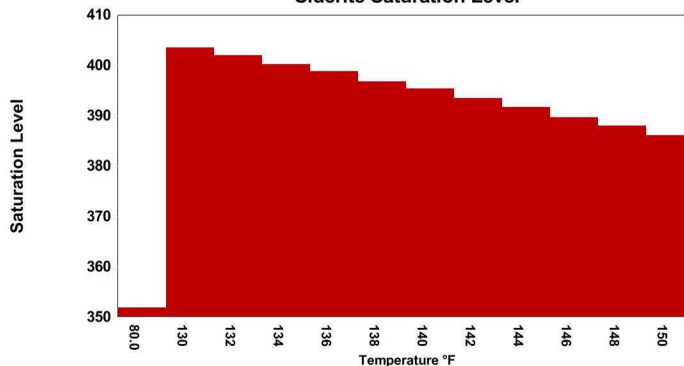
Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO₃}/K_{sp}. CO₂ (mole %) refers to CO₂ in the gas phase.

Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.

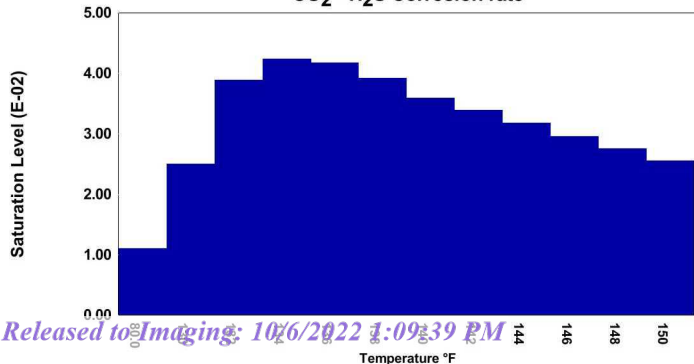
Barite Saturation Level



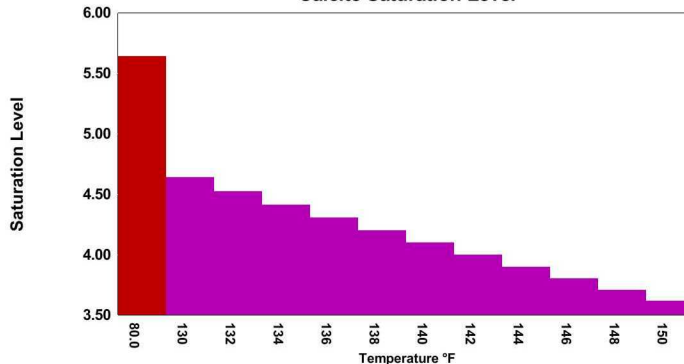
Siderite Saturation Level



CO₂ - H₂S Corrosion rate



Calcite Saturation Level



WARNER CALDWELL #001A
30-045-35505
San Juan Co., NM
348' FNL, 331' FEL, Sec. 8, T23N, R08W
36.247927°N, 107.702401°W
CONVERSION TO SALTWATER DISPOSAL



ENDURING RESOURCES, LLC

PROCEDURE:

1. Hold PJSM prior to beginning any operations. Ensure all onsite personnel abide by Enduring HSE protocol.
2. Comply with all NMOCD and BLM safety and environmental regulations.
3. Conduct safety meeting with all personnel and MIRU rig
4. Well is TA'd – ensure 0 psi casing pressure
5. Pressure test 5-1/2" casing to 1,000 psi
6. Unload and tally 2-7/8" PH-6 workstring
7. NU BOPE and test.
8. P/U BHA, TIH and drill out Baker CIBP @ 4975'
9. TIH and drill out Baker CIBP @ 5025'
10. TIH and tag fill (PBSD @ 6125')
11. TOOH standing back tbg
12. TIH with 2-7/8" tbg and 5-1/2" casing scraper to 5915'. POOH. LD scraper.
13. TIH with 5-1/2" CIBP on 2-7/8" tubing & set CIBP @ 5892' (50' above Greenhorn perms).
14. MIRU cementers. Pump 12sx cement above CIBP f/ 5892' t/ 5792'. TOOH.
15. TIH with 5-1/2" CIBP on 2-7/8" tubing & set CIBP @ 5024' (50' above Gallup perms).
16. Pump 12sx cement above CIBP f/ 5024' t/ 4924. TOOH.
17. TIH with 5-1/2" CIBP on 2-7/8" tubing & set CIBP @ 4437'.
18. Pump 12sx cement above CIBP f/ 4437' t/ 4337' (200' below planned injection perms). TOOH.
19. Rig up perforators. TIH and perforate the Point Lookout f/ 4137' t/ 3982'. TOOH.
20. PU AS1-X packer and RIH with 2-7/8" tubing with sub, packer, on/off tool and land packer 50' above top Point Lookout perforation @ 3932'.
21. Set packer and test tubing/casing annulus to 500 psi for 10 minutes. Bleed casing pressure.
22. Rig up acidizing crew. Pump 1,500 gal 15% HCl. Flush tubing and release acid crew.
23. Pull out of on/off tool, and POOH laying down tubing.
24. PU and TIH with 2-7/8" plastic lined tubing to packer @ 3932' and function test on/off tool.
25. Pull out of on/off tool and displace wellbore with packer fluid.
26. Latch onto on/off tool and chart official MIT with NMOCD witness on-site (provide inspector with 24 hour notification prior to chart recording).
27. NDBOP, NUWH and set tree for injection.
28. Establish initial injection rate to ensure well is taking fluid using no more than 50 bbl.
29. RDMO

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 119753

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 119753
	Action Type: [C-108] Fluid Injection Well (C-108)

CONDITIONS

Created By	Condition	Condition Date
pgoetze	Deemed administratively complete on August 2, 2022.	10/6/2022