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

APPLICATION OF MEWBOURNE OIL COMPANY FOR APPROVAL OF A SALTWATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO

Case No. _____

APPLICATION

Pursuant to 19.15.26.8(A) NMAC, Mewbourne Oil Company ("Mewbourne") applies for an order approving a saltwater disposal well in Eddy County, New Mexico. In support of its application, Mewbourne states the following.

1. Mewbourne (OGRID No. 14744) proposes to re-enter a dry hole, formerly named the Lario-Federal #1 (30-015-21310) well, in Unit G in Section 17, Township 20 South, Range 27 East, Eddy County, New Mexico for the purpose of operating the Penlon 17 Federal SWD #1 as a saltwater disposal well.

2. Mewbourne seeks authorization to inject produced water into the Cisco Formation in the Upper Penn Field at a depth of approximately 8,270 to 8,465 feet.

3. Mewbourne proposes to inject an average of 7,500 barrels of water per day and a maximum of 15,000 barrels of water per day.

4. Mewbourne requests that the Division approve a maximum injection pressure of 1,654 psi.

5. A Division Form C-108 is attached as Exhibit A.

6. The granting of this application will prevent waste and protect correlative rights.

WHEREFORE, Mewbourne requests that this application be set for hearing on October 6, 2022, and that, after notice and hearing, the Division enter an order approving this application and

authorizing Mewbourne to inject produced water into the Penlon 17 Federal SWD #1 well for disposal.

Respectfully submitted,

HINKLE SHANOR LLP

/s/ Dana S. Hardy

Dana S. Hardy
Jaclyn M. McLean
P.O. Box 2068
Santa Fe, NM 87504-2068
Phone: (505) 982-4554
Facsimile: (505) 982-8623
dhardy@hinklelawfirm.com
jmclean@hinklelawfirm.com
Counsel for Mewbourne Oil Company

MEWBOURNE
OIL COMPANY

June 17, 2022

New Mexico Oil Conservation Division
Engineering Bureau
Attn: Mr. Phillip Goetze
1220 South St. Francis Dr.
Santa Fe, NM 87505

Re: C-108 Application for SWD Well
Penlon 17 Federal SWD #1
1650' FNL & 2160' FEL, Unit G
Section 17, Township 20 South, Range 27 East
Eddy County, New Mexico

Dear Mr. Goetze:

Attached is a C-108 Application for administrative approval of Mewbourne Oil's proposed Penlon 17 Federal SWD #1 that will be in Sec 17 Twp 20S, Rge 27E, N.M.P.M., Eddy County, New Mexico. This well will be perforated completion the Cisco formation.

A copy of the C-108 application with exhibits have been mailed to the surface owner, offset operators and offsetting lessees, and confirmations of receipt will be e-mailed to you next week. The Legal Notice was published in the Artesia Daily Press on June 16 and a notarized copy will be emailed to you when received.

Should you have any questions, please contact us at (903) 534-7647.

Sincerely yours,

MEWBOURNE OIL COMPANY

Timothy R. Harrington

Tim Harrington
Reservoir Engineer
tharrington@mewbourne.com

Exhibit A

P.O. Box 7698 • Tyler, Texas 75711
3620 Old Bullard Road • Tyler, Texas 75701

MEWBOURNE OIL COMPANY
PENLON 17 FEDERAL SWD #1
API: 30-015-21310
SWD PERMIT APPLICATION

LIST OF ATTACHMENTS:

Administrative Checklist

Form C-108

Penlon 17 Federal SWD #1 Current Well Schematic (Former Lario-Federal #1)

Penlon 17 Federal SWD #1 Proposed Well Schematic

Penlon 17 Federal SWD #1 (Lario Federal) Survey Plat

Lario Federal Deck Completion / Plugging Report

Well Plat

Tabulation of Wells Within 1/2 Mile Radius

Fresh Water Well Map

Tabulation of Nearby Fresh Water Wells – (Source: NM Office of the State Engineer)

Fresh Water Well Water Analysis

Producing Well Water Analysis – Wolfcamp, & Bone Spring

Surface Ownership Map (Federal, State or Private)

Offset Operator Map

Listing of Notified Persons

Affidavit of Publication – Artesia-Daily Press

Hydrologic Affirmation

Seismicity Statement

Dagger Draw Seismicity Response Area Map – Penlon 17 SWD distance to nearest earthquake

Geological Cross Section

84XCS-220617-C-1080

Revised March 23, 2017

RECEIVED: 06/17/2022	REVIEWER:	TYPE: SWD	APP NO: pJZT2218649515

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: Mewboure Oil Company **OGRID Number:** 14744
Well Name: Penlon 17 Federal SWD #1 **API:** 30-015-21310
Pool: SWD; UPPER PENN **Pool Code:** 96137

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

1) **TYPE OF APPLICATION:** Check those which apply for [A] SWD-2492
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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

June 17, 2022
Date

Timothy R. Harrington
Print or Type Name

903-534-7647
Phone Number

Timothy R. Harrington
Signature

tharrington@mewbourne.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: **Mewbourne Oil Company**

ADDRESS: **3620 Old Bullard Road**
Tyler, TX 79701
CONTACT PARTY: **Tim Harrington** PHONE: **903-534-7647**

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: **Tim Harrington** TITLE: **Reservoir Engineer**

SIGNATURE: Timothy R. Harrington DATE: 6/17/2022

E-MAIL ADDRESS: **tharrington@mewbourne.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: **Mewbourne Oil Company**

WELL NAME & NUMBER: **Penlon 17 Federal SWD #1 (Re-enter Lario Federal #1) 30-015-21310**

WELL LOCATION:	**1650' FNL & 2160' FEL**	**G**	**17**	**20S**	**27E**
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC ***(See Attached)***

WELL CONSTRUCTION DATA

Surface Casing (Existing)

Hole Size: **20"**

Casing Size: **16" (47 #) @ 103'**

Cement with: **200 sx**

Top of Cement: **Surface (cement did not circulate – cement w 16 yards of ready mix around top**

Intermediate Casing (Existing)

Hole Size: **11"**

Casing Size: **8 5/8" (24#) @ 2,707'**

Stage 1: **1400 sx**

Top of Cement: **Surface (Did not circulate, cement outside with 80 sx)**

Production Casing (New)

Hole Size: 7 7/8"

Casing Size: **7" (HP110- FJ) @ 8,900'**

Stage 1: **280 sx Class H 11.5# followed by 210 Sx Class H 15.6#**

Top of Cement: **Surface (Calculated)**

Permitted Injection Interval 8,270'-8,465'

INJECTION WELL DATA SHEET

Tubing Size: **4 ½" 11.6# P-110** Lining Material: **Fiberglass**

Type of Packer: **Model R Packer (Inconel)**

Packer Setting Depth: **+/- 8,200'**

Other Type of Tubing/Casing Seal (if applicable): **N/A**

Additional Data

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

   If no, for what purpose was the well originally drilled? **Dryhole - Gas**

2. Name of the Injection Formation: **Cisco**

3. Name of Field or Pool (if applicable): 96134 SWD:UPPER PENN

4. Has the well ever been perforated in any other zone(s)? **No.**

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

   Overlying potentially productive zone tops **Bone Spring (2,893') & Wolfcamp (7,962')**

   Underlying producing zone – **Strawn (9,240'), Atoka (9,790') & Morrow (10,268')**

PENLON 17 FEDERAL SWD #1
Additional Details

VI. There is only one well (the Lario Federal #1) penetrating the disposal formation within the area of review.

VII. 1. Proposed average rate of 7,500 bwpd and maximum rate of 15,000 bwpd.

2. Commercial SWD.

3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 1,654 psi (0.2 psi/ft x 8,270 ft).

4. This well is being permitted as a commercial SWD. A majority of the injected water will be produced from Mewbourne Oil Company operated wells to be drilled in the area. Representative water samples from the Wolfcamp and Bone Spring formations are attached.

5. We will be injecting into the Cisco formation in the Upper Penn Field. Mewbourne operates a Cisco SWD (approx.10 miles to the southwest) and has not encountered any water compatibility issues. The following data is the closest produced water analysis that is available on the USGS or NMT databases. The Spring SWD is a Cisco SWD in the SWD: UPPER PENN Field.

wellname	api	section	township	range	unit	ftgns	ftgew	formation	samplesou	tds_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL
SPRING SWD #001	3001500129	4	21S	25E	A	660N	830E	CISCO	SWAB	31485	17000	635	2500
SPRING SWD #001	3001500129	4	21S	25E	A	660N	830E	CISCO	SWAB	31580	17370	502	2310

VIII. 1. The proposed injection interval, 8270' – 8,465, is within the Cisco formation which is a porous dolomite. The interval is water bearing since a DST was performed in this well in 1974 and 6900' of sulfur water was recovered with no shows of oil and gas.

Other Formation Tops:

Top Bone Spring	3,830'
Top Wolfcamp	8,305'
Top Strawn	9,240'
Top Atoka	9,790'
Top Morrow	10,268'
Top Mississippian	10,938'
Top Woodford	11,300'
Top Devonian	11,370'
Top Ellenburger	12,460'

2. The underground fresh water aquifers are present at shallow depths (per revue of well records, within Twp 20S, Rge 27E, on the NM Office of the State Engineers website) with the deepest water being encountered at a depth of 198', the shallowest water at a depth of 13' and the average water depth at 125'. There are no known fresh water intervals underlying the injecting formation.

IX. The proposed stimulation is an acid treatment of 10,000 gallons of 15% HCL.

IX. Open hole logs already exist on this dryhole. A gamma ray correlation / CCL log will be run for perforating purposes.

X. There was one well on record with the NM State Engineers Office within 1 mile of the proposed SWD. Fresh water sample were taken from a well located in Section 9, Twp 20S, Rge 27E, and the analysis is attached. The location of these wells is highlighted on the attached Fresh Water Well Map and Listing of Nearby Fresh Water Wells.

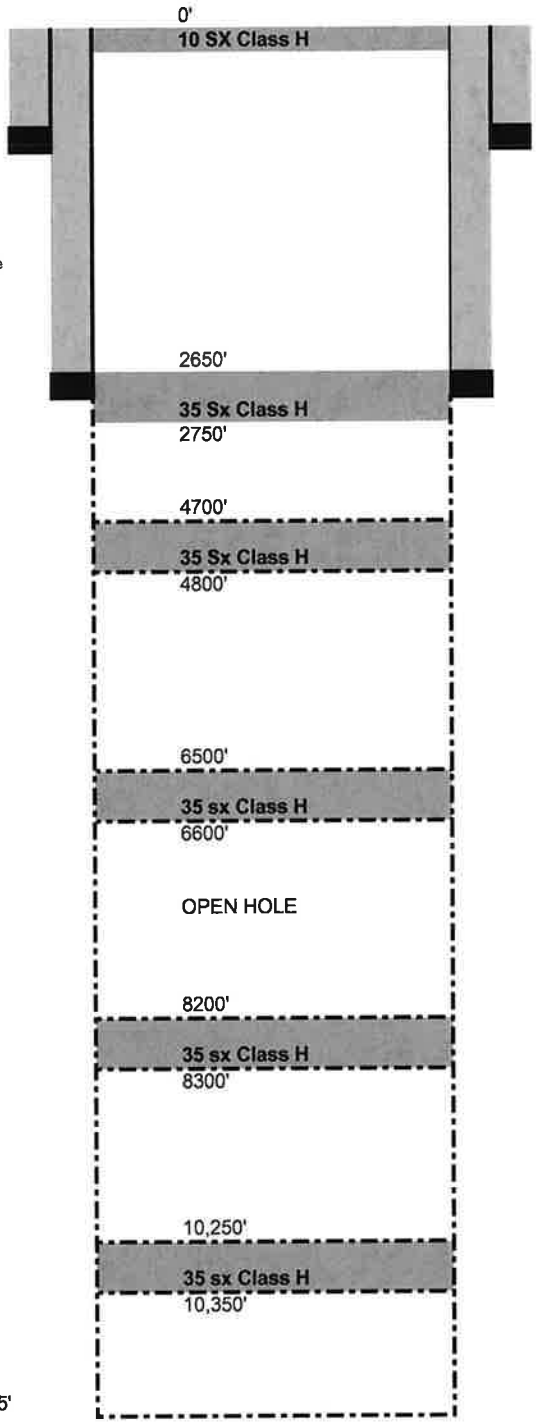
XI. Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water. A signed affidavit is attached.

XII. See attached Proof of Notice

Mewbourne Oil Company
Current Wellbore Schematic

Well Name: Penlon 17 Fed SWD #1
Formerly: Lario Federal #1
1650' Fnl, 2160 Fel
Sec 17, Twp 20S, Rge 27E
API: 30-015-21310
Spud 7/28/1974
Dryhole: P&A 9/13/1974

Last Updated by T. Harrington 6/14/2022



16" (47#)
Set @ 103'
Cmt w/ 200 sx
Cement did not circulate
Cement w/ 16 yds of ready mix around top

8 5/8" (24#)
Set @ 2707'
Cmt w/ 1400 sx
Did Not Circulate
Cement outside w/ 80 sx
2707'

TOP OF CISCO
8269'

Total Depth 10665'

Mewbourne Oil Company

Proposed Wellbore Schematic

Well Name: Penlon 17 Fed SWD #1
Formerly: Lario Federal #1
1650' Fnl, 2160 Fel
Sec 17, Twp 20S, Rge 27E
API: 30-015-21310
Spud 7/28/1974
Dryhole: P&A 9/13/1974

Last Updated by T. Harrington 6/14/2022

16" (47#)
Set @ 103'
Cmt w/ 200 sx
Cement did not circulate
Cement w/ 16 yds of ready mix around top

20" hole

103'

11" hole

8 5/8" (24#)
Set @ 2707'
Cmt w/ 1400 sx
Did Not Circulate
Cement outside w/ 80 sx

2707'

7 7/8" hole

4 1/2" (11.6#) P-110 fiberglass lined set @ 8200'

TOP OF CISCO
8269'

PROPOSED PERFORATIONS

8270 FT
8465 FT

7" 29# HP110 FJ casing
Set @ 8900'
CMT w/280 sks Class H 11.5# 2.5 yd followed by 200 sks Class H 15.6# 1.18 yd

10,250'

35 sx Class H

10,350'

Total Depth

10665'

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
MEADCO PROPERTIES, LTD.	LARIO FEDERAL	1

Unit Letter	Section	Township	Range	County
G	17	20 SOUTH	27 EAST	EDDY

Actual Footage Location of Well:
1650 feet from the NORTH line and 2160 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3633.1	Morrow	Und McMillan Morrow Gas	640 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

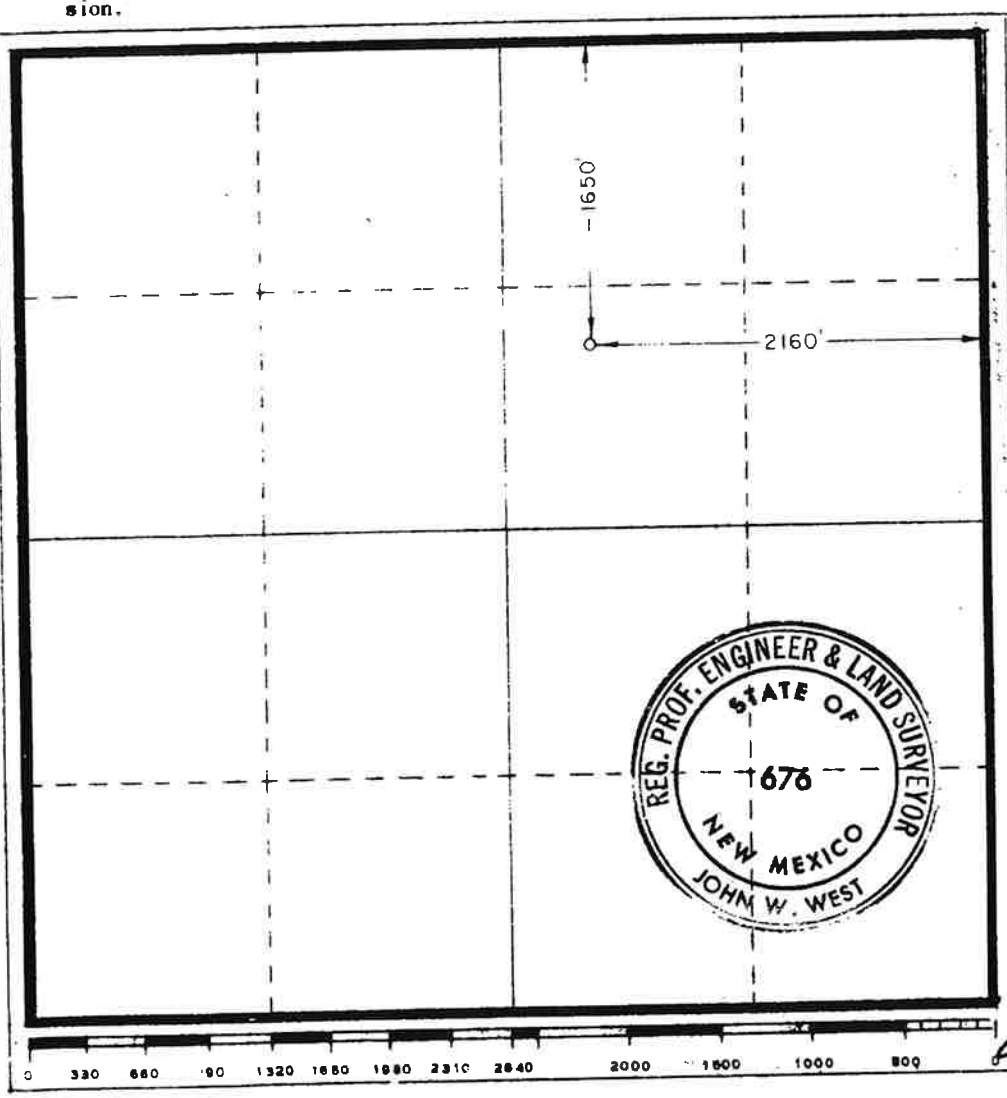
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty)

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

[X] Yes [ ] No If answer is "yes," type of consolidation Communitized if productive

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Bill C. Cotner

Name: Bill C. Cotner

Position: Agent

Company: Meadco Properties, Ltd.

Date: June 27, 1974

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 knowledge and belief.

RECEIVED
JUL 3 1974
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Date Surveyed: JUNE 15, 1974

Registered Professional Engineer and/or Land Surveyor

John W West

Certificate No. 676

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

N. M. O. C. C. COPY
SUBMIT IN TRIPLICATE* (Other instructions reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

RECEIVED
AUG 14 1974
O. C. C.
ARTESIA, OFFICE

2. NAME OF OPERATOR: Meadco Properties, Ltd.
3. ADDRESS OF OPERATOR: Box 2236, Midland, Texas 79701
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: 1650' FNL & 2160' FEL, Sec. 17, T-20-S, R-27-E

5. LEASE DESIGNATION AND SERIAL NO.: NM 15002
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Lario-Federal
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: McMillan (Morrow)
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 17-20S-27E
12. COUNTY OR PARISH: Eddy
13. STATE: New Mexico

14. PERMIT NO.
15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3633 Gr.

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	X	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐				
(Other)				(Other)			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Well spudded 1:00 p.m. August 4, 1974. 20" hole drilled to 105' and 16" casing was cemented at 103' with 200 sx. Class C with 2% Calcium Chloride. Cement did not circulate and 16 yards of ready mix was used around the top to complete circulation.

Meadco plans to change the 10 3/4" casing to 8 5/8" casing and cement with 1200 sx. (circulate) at 2700'. The hole will be reduced from 13 3/4" to 11".

Drilling at 1070' on August 7, 1974.

RECEIVED
AUG - 8 1974
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED Dick C. Cates TITLE Agent DATE 8-4-74

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AUG 13 1974
M. L. BEEKMAN
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

N. M. O. C. C. COPY

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED
AUG 19 1974
O. C. C.
ARTESIA, OFFICE

5. LEASE DESIGNATION AND SERIAL NO.: NM 15002

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Meadco Properties, Ltd.

8. FARM OR LEASE NAME: Lario-Federal

3. ADDRESS OF OPERATOR: P. O. Box 2236, Midland, Texas 79701

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1650' FNL & 2160' FEL, Sec. 17, T-20-S, R-27-E

10. FIELD AND POOL, OR WILDCAT: McMillan (Morrow)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 17-20S-27E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3633 Gr.

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) running 8-5/8" casing			☒
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Drilled 11" hole to 2707'. Ran 63 jts. 8-5/8" 24# ST&C casing. Set at 2707'. Cemented with 1200 sx Halliburton Lite with 5# gilsonite & 1/4# Flocele per sack. Followed by 200 sx Class C with 2% calcium chloride. Plug down 8:45 p.m. 8/11/74. Cement did not circulate and 50 sx Class C cement with 2% calcium Chloride was used outside 8-5/8" casing. Cement circulated but dropped back. Used additional 30 sx plain cement to bring cement to surface. WOC 24 hrs. Tested to 1000# for 30 min. Tested okay.

Drilling at 2770' lime and sand on August 13, 1974.

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AUG 14 1974
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED Dave C. Arthur TITLE Agent DATE 8/13/74

(This space for Federal or State office use)

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AUG 16 1974
L. L. BEEKMAN
ACTING DISTRICT ENGINEER

*See Instructions on Reverse Side

N. M. O. C. C. COPY

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: NM 15002

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1. OIL WELL ☐ GAS WELL ☒ OTHER

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U. S. G.
ARTESIA, OFFICE

8. FARM OR LEASE NAME: Lario-Federal

2. NAME OF OPERATOR: Meadco Properties, Ltd.

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: P. O. Box 2236, Midland, Texas 79701

10. FIELD AND POOL, OR WILDCAT: McMillan (Morrow)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: 1650' FNL & 2160' FEL, Sec. 17, T-20-S, R-27-E

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 17-20S-27E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3633 GR

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☒
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

9/12/74 TD 10,665' shale. DST #4 10,440-10,480'. 20" pre-flow. Weak Blow. 60" Initial Shut-in - 139#, 30" flow period - 46#, 60" final shut-in - 116#. Temp. 170°. Recovered 90' drilling mud.

9/13/74 TD 10,665' shale. 35 sack plugs of Class H cement were set at the following depths: 10,250-10,350'; 8,200-8,300'; 6,500-6,600'; 4,700-4,800; 2,650-2,750'.
10 sack plug set in surface. Rig released 12:00 p.m. 9/13/74.
No casing pulled.

We will advise as soon as the location is ready for final inspection.

RECEIVED
SEP 18 1974
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE Agent DATE 9/17/74

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

N. M. O. C. C. COPY

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: NM 15002

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☒ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other Plug & Abandon

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FEB 11 1975
O. C. C.
ARTESIA, OFFICE

8. FARM OR LEASE NAME: Lario-Federal

2. NAME OF OPERATOR: Meadco Properties, Ltd.

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: P. O. Box 2236, Midland, Texas 79701

10. FIELD AND POOL, OR WILDCAT: McMillan (Morrow)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1650' FNL & 2160' FEL, Sec. 17, T-20-S, R-27-E
At top prod. interval reported below Same
At total depth Same

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 17-20S-27E

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: Eddy | 13. STATE: New Mexico

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
8/4/74	9/10/74	NA	3633 Gr.	3633 Gr.

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
10,665'	NA	NA	→	0-10,665'	--

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: None

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Acoustic Velocity Neutron

27. WAS WELL CORED: No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
16"	47#	103	20"	200 sx	None
8-5/8"	24#	2707	11"	1400 sx	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NA				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA		

31. PERFORATION RECORD (Interval, size and number): None

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U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
NA	

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
None	NA	NA

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
NA	NA	NA		NA	NA	NA	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
NA	NA		NA	NA	NA	NA

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): NA

TEST WITNESSED BY: NA

35. LIST OF ATTACHMENTS: Acoustic Velocity Neutron Log, Deviation survey

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Wiel C. Cotton TITLE Agent DATE 2/7/75

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

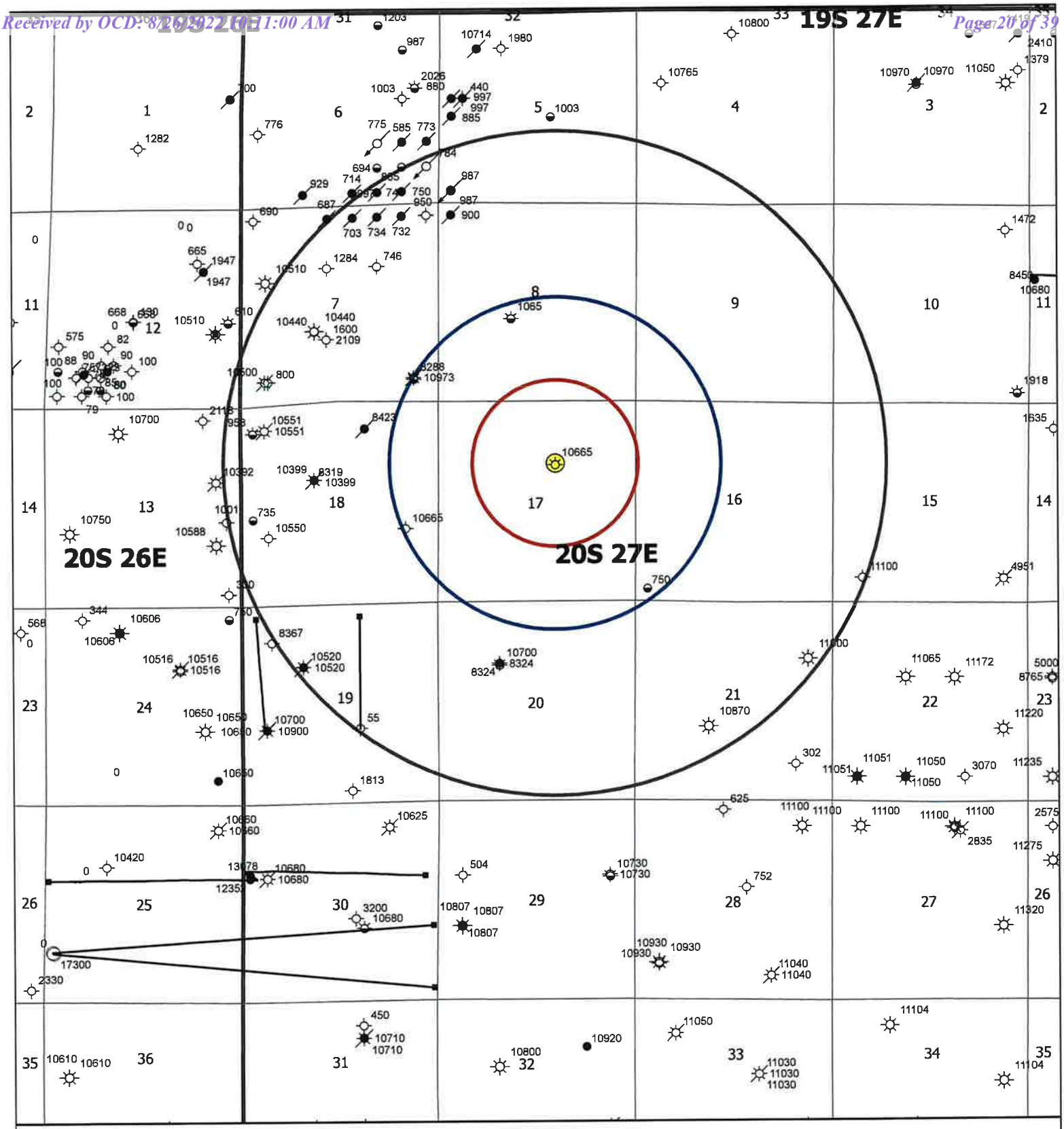
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
	0	1100	Lime & shale
	1100	2250	Lime
	2250	2890	Sand & shale
	2890	3300	Lime & shale
	3300	5550	Lime
	5550	7968	Lime, shale & ~~XXX~~ sand
	7968	8268	Lime & shale
	8268	9150	Lime
	9150	10330	Lime & shale
	10330	10665	Sand & shale
			This location is ready for final inspection.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
1st Bone Spring	5550	2205
2nd Bone Spring	6428	3083
3rd Bone Spring	7588	4243
T Wolfcamp	7966	4621
T Cisco	8268	4923
T Strawn	9038	5693
T Atoka	9790	6445
T Morrow Sand	10336	6991
T Chester	10608	7263

871-233

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636


20S 26E
20S 27E
19S 27E
0
0.5
1
2 Miles
N
Legend
WELLS
Location (Permit)
Drilling in Progress
Oil Well
Gas Well
Oil & Gas Well
Dry w/Oil Shows
Dry w/Gas Shows
Dry w/Oil & Gas Shows
Dry Hole
Injection
Suspended
Plugged Gas Well
Plugged Oil Well
Plugged Oil & Gas Well
Abandoned Location
Unclassified, Co2, etc.
Well Bore
SURFACE LOCATION
MEWBOURNE OIL COMPANY
Mewbourne Oil Company
PENLON 17 FEDERAL SWD #1 APPLICATION
ALL WELLS
EDDY, NEW MEXICO
Author:
Date:
13 June, 2022

MEWBOURNE OIL COMPANY
PENLON 17 FEDERAL SWD #1 APPLICATION
LISTING OF WELLS WITHIN THE 1/2 MILE AREA OF REVIEW

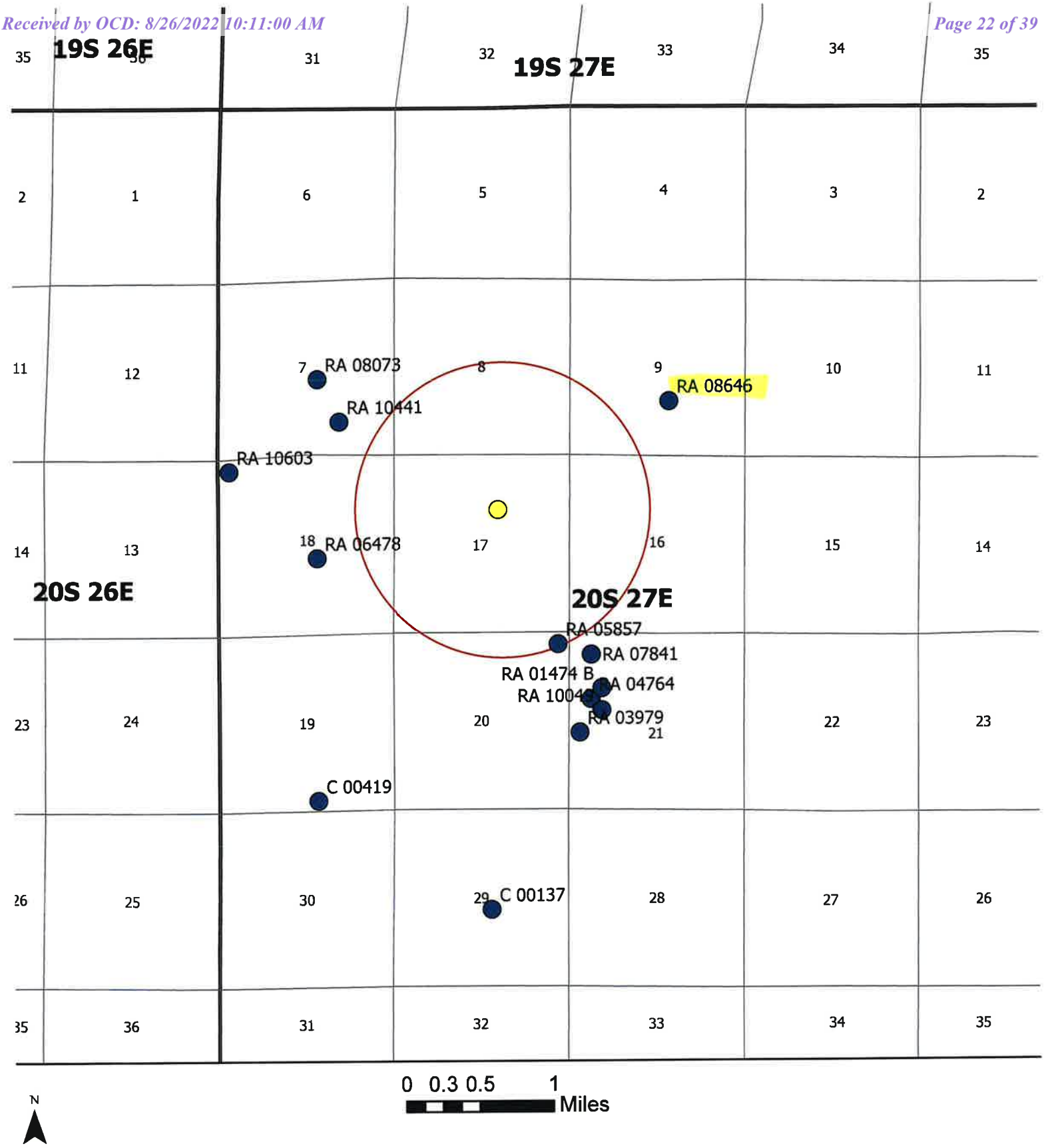
Dir	API	Lease Name	Well Num	Operator Name	Current Operator	Sec	Twp	Rge	Footage	Final Status	Current Status	Driller Td	TVD (ft)	Prod Form	Spud Date	Comp Date	Plug Date
V	30015213100000	LARIO FEDERAL	1	MEADCO PROPERTIES	MEADCO PROPERTIES	17	20S	27E	1650 FNL 2160 FEL	DRYHOLE	PLUGGED	10665	10665	DRYHOLE	1974-07-28	1974-09-13	1974-09-13

TOP OF CISCO FORMATION 8,269' (OPEN HOLE LOGS)

		TOP	BOTTOM
DST		8250'	8354'

RECOVERY:
6900' SULFUR WATER
NO SHOWS OIL OR GAS

BHP:	3288	PSIG
BHT:	144	DEG F



MEWBOURNE OIL COMPANY

Fresh Water Locations
SWD Well Buffer
SWD Wells

Mewbourne Oil Company

PENLON 17 FEDERAL SWD #1 APPLICATION
FRESH WATER LOCATIONS
EDDY, NEW MEXICO

Author:		Date:
sd		13 June, 2022

NEWBOURNE OIL COMPANY
DENLON 17 FEDERAL SWD #1 PERMIT APPLICATION
LISTING OF NEARBY FRESH WATER WELLS
17-Jun-22

POD Number	Source	q64	q16	q4	Sec	Tws	Rng	X	Y	Lat	Long	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller
RA 08073	Shallow	NW	NW	SE	07	20S	27E	563883	3605760	32.587472	-104.319301	08/12/1992	08/30/1992	08/23/1993	200	198	MIKE CAMPBELL
RA 10441	Shallow	NE	SW	SE	07	20S	27E	564085	3605372	32.583961	-104.317175	08/08/2003	09/06/2003	09/10/2003	130	13	VLOSICH, JOSEPH M., JR.
RA 08646		SW	NW	SE	09	20S	27E	567117	3605568	32.585549	-104.284857						
RA 06478		NW	NW	SE	18	20S	27E	563886	3604124	32.572715	-104.31938						
RA 10603	Shallow	NW	NW	NW	18	20S	27E	563076	3604910	32.579851	-104.3280						
C 00419		SW	SW	SE	19	20S	27E	563904	3601904	32.552689	-104.31934	11/07/1952	01/18/1953	07/08/1958	1813		JENKINS & MCQUEEN
RA 05857		NE	NE	NE	20	20S	27E	566104	3603346	32.565567	-104.295807		06/18/1973	07/01/1973			
RA 03979	Shallow	NW	NW	SW	21	20S	27E	566306	3602539	32.558276	-104.293712		08/01/1944	01/06/1959	190		W.P. BLACK
RA 04764	Shallow		SW	NW	21	20S	27E	566407	3602845	32.56103	-104.292615	02/01/1963	02/02/1963	02/21/1963	171	150	SMITH, A.F.
RA 07841	Shallow		NW	NW	21	20S	27E	566408	3603251	32.564692	-104.292575	12/07/1990	12/20/1990	01/02/1991	200	140	JOHN B HAMMOND
RA 01474 B	Shallow	NE	SW	NW	21	20S	27E	566506	3602944	32.561917	-104.291553						
RA 10049		SE	SW	NW	21	20S	27E	566506	3602744	32.560113	-104.291567						
C 00137		NW	NW	SE	29	20S	27E	565502	3600917	32.543692	-104.302389						
														AVG	**178**	**125**	

water analysis attached

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2022/04/14	Technician Name:	vfuentes
Date Sample was Taken:	04/12/2022	Sample Name:	Fresh Water
Analysis Performed by:	Enviroklean Product Development	API Well Number:	
Client:	Mewbourne Oil Company	Well Name:	RA08646
Reader Number:		Test Number:	
Water Lens Batch Number:	897		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	Less than 2	Less than 0.029
Calcium	Calc	750	37.4
Iron II (Fe^{2+})	1	Less than 0.03	Less than 0.0016
Iron III (Fe^{3+})	Calc	Less than 0.03	Less than 0.0016
Total Dissolved Iron	1	Less than 0.03	Less than 0.0016
Magnesium	1,000	202.00	16.60
Sodium	Calc	Less than 230	Less than 0.01
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	10	19	0.5

Anions

	Dilution Factor	mg/L	meq/L
Chloride	1	208	6
Sulfate	10	1,010	21
Nitrate	n/a	*Test Not Run*	-
Phosphate	1	0.58	0.02
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	66	1.1
Acetates/Formates (as Acetate)	Calc	68	1.2
Hydroxide (as OH^-)	Calc	0	0
Sulfide (Total)	n/a	*Test not run*	Test not run

Other

	Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	1.0	mg/L
Turbidity	1	Less than 7	NTU's
Total Hardness	100.0	2,710.00	mg/L $CaCO_3$
Oxidation/Reduction Potential (ORP)		110	millivolts
Temperature		77	Fahrenheit
Stiff & Davis Scaling Index (S&DSI)		0.38	
Langelier Scaling Index (LSI)		0.87	
Larson-Skold Index		30.31	
Skillman Index		1.251	
Barite Saturation Index		NA	
Gypsum Saturation Index		0.48	

	Dilution Factor		
ATP (picograms/mL)	Calc	1006	
Dissolved CO_2 (ppm)	Calc	5	
pH	n/a	7.89	
Total Alkalinity	1	112	mg/L $CaCO_3$
Total Dissolved Solids (TDS)	Calc	2,300	mg/L
Electrical Conductivity	Calc	4,900	uS/cm
Electrical Resistivity	Calc	205.9	Ohm*cm
Manganese/Iron Ratio		*Test Not Run*	
Specific Gravity		1.0020	

Comments

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2021/07/06	Technician Name:	vfuentes
Date Sample was Taken:	07/01/2021	Sample Name:	Double Barrel 31 Fed
Analysis Performed by:	EPD	API Well Number:	
Client:	Mewbourne Oil Company	Well Name:	Produced Water
Reader Number:		Test Number:	Ruger 31 B3EH Fed #2H
Water Lens Batch Number:	841		

Metals

	Dilution Factor	mg/L	meq/L
Barium	10	Less than 20	Less than 0.28
Calcium	Calc	6260	312.4
Iron II (Fe^{2+})	100	23.03	0.82
Iron III (Fe^{3+})	Calc	Less than 2	Less than 0.16
Total Dissolved Iron	100	24.10	1.29
Magnesium	1,000	1,032.00	85.00
Sodium	Calc	49000	2130
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	100	931	23.8

Anions

	Dilution Factor	mg/L	meq/L
Chloride	100	90,090	2,541
Sulfate	10	670	14
Nitrate	n/a	*Test Not Run*	-
Phosphate	100	48.57	1.53
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	86	1.4
Acetates/Formates (as Acetate)	Calc	91	1.5
Hydroxide (as OH^-)	Calc	0	0
Sulfide (Total)	n/a	*Test not run*	*Test not run*

Other

	Dilution Factor			Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	0.5	mg/L	ATP (picograms/mL)	Calc	*Test not run*
Turbidity	1	38	NTU's	Dissolved CO_2 (ppm)	Calc	210
Total Hardness	1,000.0	19,890.00	mg/L $CaCO_3$	pH	n/a	5.83
Oxidation/Reduction Potential (ORP)		-18	millivolts	Total Alkalinity	1	148 mg/L $CaCO_3$
Temperature		77	Fahrenheit			
Stiff & Davis Scaling Index (S&DSI)		-1.38		Total Dissolved Solids (TDS)	Calc	148,290 mg/L
Langelier Scaling Index (LSI)		-0.23		Electrical Conductivity	Calc	193,400 uS/cm
Larson-Skold Index		2210.31		Electrical Resistivity	Calc	5.2 Ohm*cm
Skillman Index		1.251		Manganese/Iron Ratio		*Test Not Run*
Barite Saturation Index		1.65		Specific Gravity		1.1030
Gypsum Saturation Index		0.13				

Comments

Bone Springs

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2021/07/06	Technician Name:	vfuentes
Date Sample was Taken:	07/01/2021	Sample Name:	Chicharran 12 Fed SWD#1
Analysis Performed by:	EPD	API Well Number:	
Client:	Mewbourne Oil Company	Well Name:	Produced Water
Reader Number:		Test Number:	Normandy 31/32 W0LI Fed Com #1H
Water Lens Batch Number:	841		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	11	0
Calcium	Calc	5440	271.4
Iron II (Fe^{2+})	100	53.10	1.90
Iron III (Fe^{3+})	Calc	Less than 3	Less than 0.16
Total Dissolved Iron	100	53.10	2.85
Magnesium	1,000	861.00	70.80
Sodium	Calc	47000	2040
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	100	909	23.2

Anions

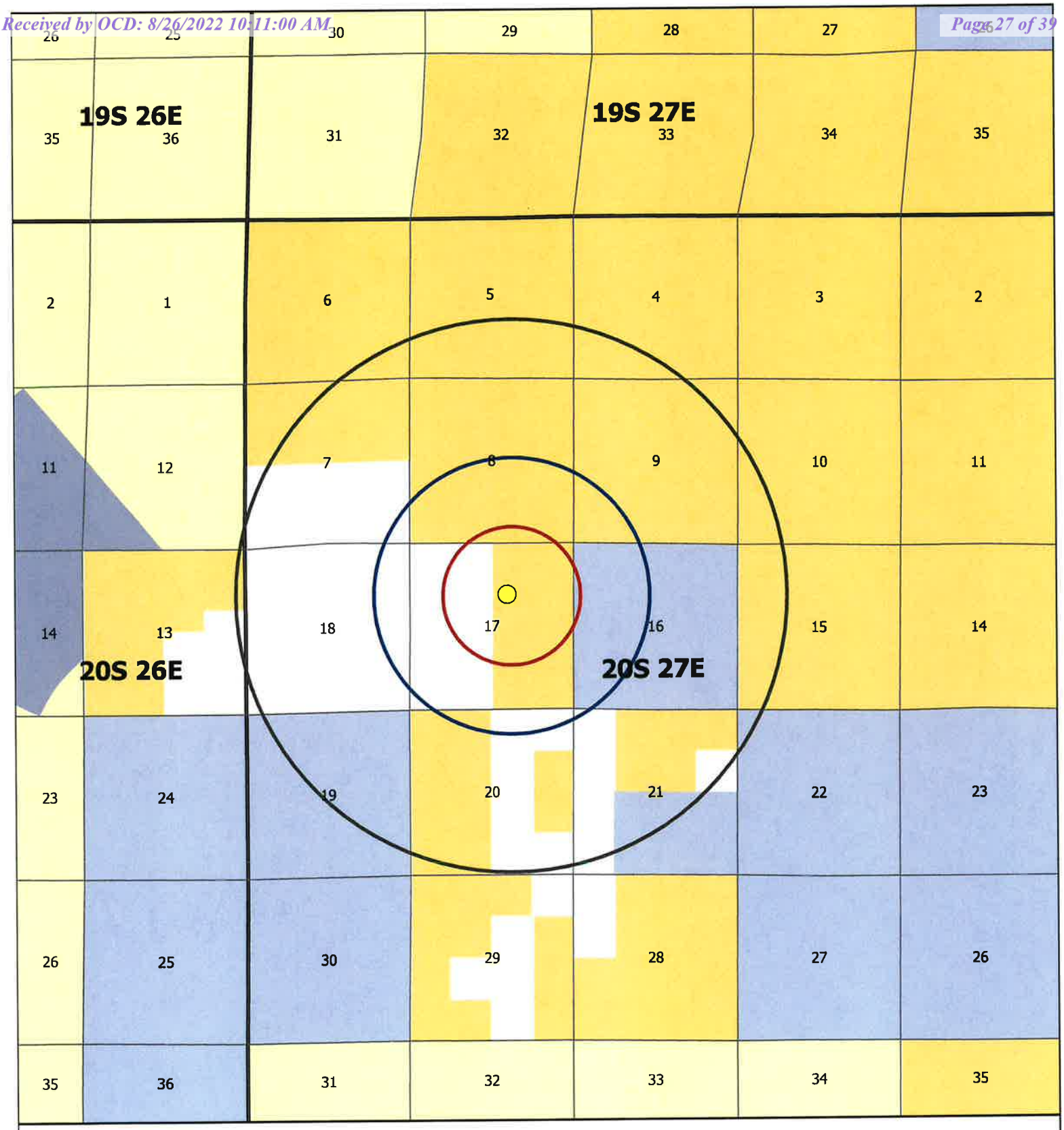
	Dilution Factor	mg/L	meq/L
Chloride	100	84,530	2,384
Sulfate	10	810	17
Nitrate	n/a	*Test Not Run*	-
Phosphate	100	36.87	1.17
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	39	0.6
Acetates/Formates (as Acetate)	Calc	32	0.5
Hydroxide (as OH^-)	Calc	0	0
Sulfide (Total)	n/a	*Test not run*	*Test not run*

Other

	Dilution Factor				Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	0.5	mg/L	ATP (picograms/mL)	Calc	*Test not run*	
Turbidity	1	104	NTU's	Dissolved CO_2 (ppm)	Calc	160	
Total Hardness	1,000.0	17,140.00	mg/L $CaCO_3$	pH	n/a	6.02	
Oxidation/Reduction Potential (ORP)		-8	millivolts	Total Alkalinity	1	59	mg/L $CaCO_3$
Temperature		77	Fahrenheit				
Stiff & Davis Scaling Index (S&DSI)		-1.72		Total Dissolved Solids (TDS)	Calc	139,700	mg/L
Langelier Scaling Index (LSI)		-0.54		Electrical Conductivity	Calc	182,800	uS/cm
Larson-Skold Index		4579.95		Electrical Resistivity	Calc	5.5	Ohm*cm
Skillman Index		1.251		Manganese/Iron Ratio		*Test Not Run*	
Barite Saturation Index		1.80		Specific Gravity		1.0970	
Gypsum Saturation Index		0.18					

Comments

Wolfcamp



N

SWD Wells

Surface Ownership

- Bureau of Land Management
- Bureau of Reclamation
- Dept. of Agriculture
- Dept. of Defense
- Dept. of Energy
- Fish & Wildlife Service
- Forest Service
- Tribal
- Other Federal Agency
- Private
- State
- State Game & Fish
- State Park
- National Park Service

distance

- 0.5
- 1
- 2

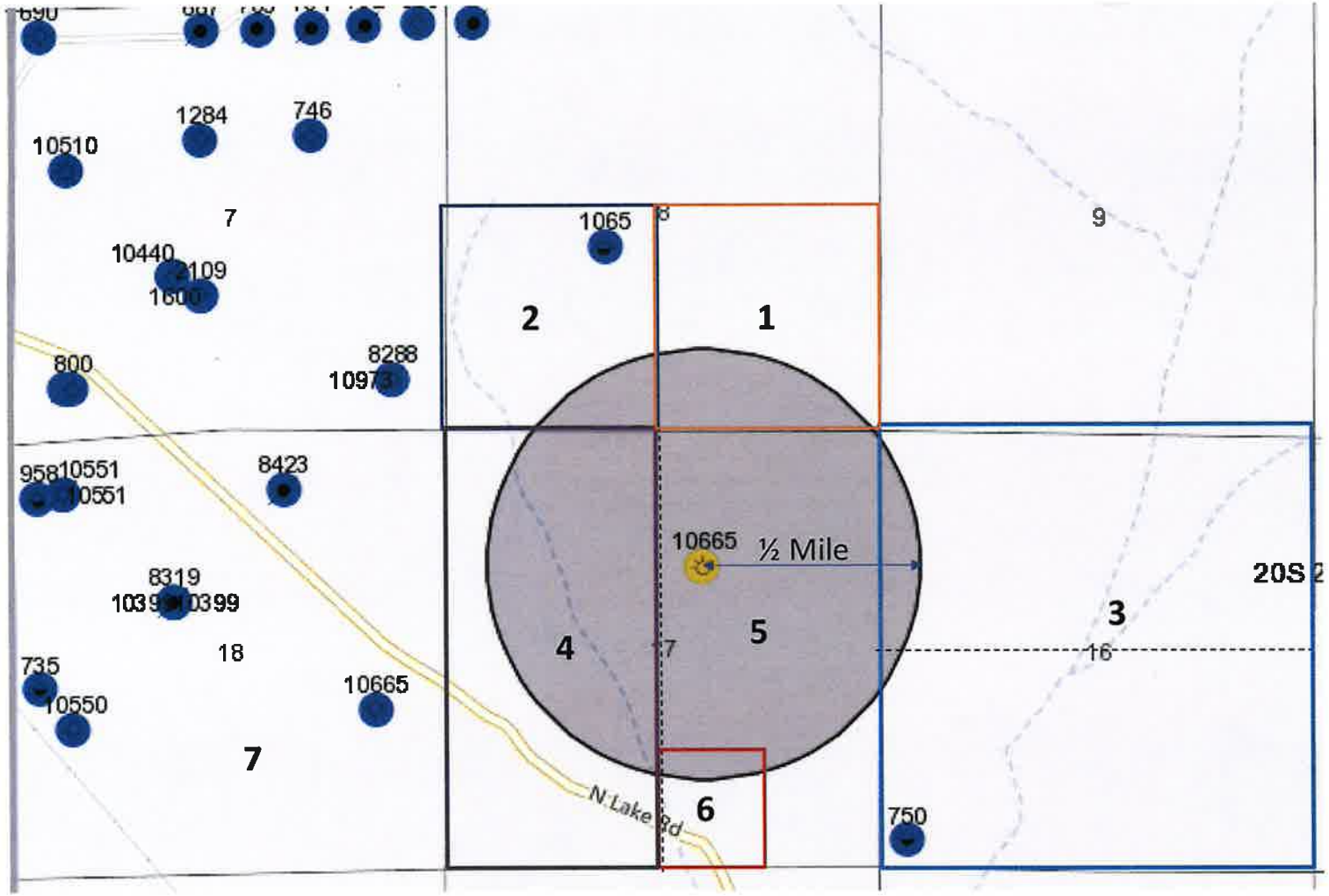
MEWBOURNE OIL COMPANY

Mewbourne Oil Company

PENLON 17 FEDERAL SWD #1 APPLICATION
SURFACE OWNERSHIP MAP
SEC. 17-20S-27E
EDDY, NEW MEXICO

Author:		Date:
sd		13 June, 2022

Mewbourne Oil Company – Penlon 17 SWD Application - Offset Operator / Lessee Map



Listing of Notified Persons

Penlon 17 Federal SWD #1 Application
1650' FNL & 2160' FEL
Section 17, T20S, R27E, Eddy County, NM

Surface Owner
Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

Other State or Federal Surface Owners within 1-Mile
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501

Offsetting Operators Or Leasehold Owners Within 1/2 Mile

1: SE/4, Section 8, 20S, 27E
MRC Delaware Resources, LLC
5400 LBJ Freeway, Ste. 1500
Dallas, Texas 75240

Jalapeno Corp.
1429 Central Ave NW, Suite 3
Albuquerque, NM 87104

Nortex Corp.
3009 Post Oak Blvd., Ste 1212
Houston, TX 77056
Attn: Bob Kent

Robert W. Kent
3009 Post Oak Blvd., Ste 1212
Houston, TX 77056

Sharbro Energy, LLC
505 W. Main St.
Artesia, NM 88210
Attn: Liz Baker

Yates Energy Corporation
400 N. Pennsylvania, Suite 250
Roswell, NM 88201

EOG Resources Inc.
5509 Champions Drive
Midland, Texas 79706

Santo Legado, LLC
101 S. 4th Street, Suite B
Artesia, NM 88210

2: SW/4, Section 8, 20S, 27E
Tascosa Energy Partners LLC
901 W. Missouri Ave
Midland, TX 79701

Canyon Draw Resources, LLC
3333 Lee Parkway, Suite 750
Dallas, Texas 75219

3: Section 16, 20S, 27E
Tascosa Energy Partners LLC
901 W. Missouri Ave
Midland, TX 79701

Canyon Draw Resources, LLC
3333 Lee Parkway, Suite 750
Dallas, Texas 75219

4: W/2, Section 17, 20S, 27E
Tascosa Energy Partners LLC
901 W. Missouri Ave
Midland, TX 79701

Canyon Draw Resources, LLC
3333 Lee Parkway, Suite 750
Dallas, Texas 75219

5: NE/4, N/2 SE/4, SE/4 SE/4 Section 17, 20S, 27E
OPEN Federal Minerals

6: SW/4 SE/4 Section 17, 20S, 27E
Tascosa Energy Partners LLC
901 W. Missouri Ave
Midland, TX 79701

Canyon Draw Resources, LLC
3333 Lee Parkway, Suite 750
Dallas, Texas 75219

Legal Notice

NOTICE
Mewbourne Oil Company has filed a form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to re-enter and complete the Penlon 17 Federal SWD #1, as a salt water disposal well.

The Penlon 17 Federal SWD #1 is located 1650' FNL and 2160' FEL, Unit Letter G, Section 17, Township 20 South, Range 27 East, NMPM, Eddy County, New Mexico. The well will dispose of water produced from nearby operated oil and gas wells into the Cisco formation through a perforated interval from a depth of 8270 feet to 8465 feet. Expected maximum injection rates are 15,000 BWPD at a maximum injection pressure of 1654 psi.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. The name and address of the contact party for the applicant is Tim Harrington, Mewbourne Oil Company, 3620 Old Bullard Road, Tyler, Texas 75701, (903)-534-7647. The well is located approximately 11 miles Northwest of Carlsbad, New Mexico.

Published in the Artesia Daily Press, Artesia, N.M., June16, 2022 Legal No. 26190.

MEWBOURNE
OIL COMPANY

June 17, 2022

Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Phillip Goetze

Re: Penlon 17 Federal SWD #1
Sec 17, Twp 20S, Rge 27E
Eddy County, NM

Mr. Goetze,

In accordance with item XII on Mewbourne Oil Company's C-108 filed for the captioned salt water disposal well, Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting or any other hydrologic connection between the proposed disposal zone and any underground sources of drinking water.

Should you have any questions, please email me at tharrington@mewbourne.com or call me at (903) 534-7647.

Sincerely yours,

MEWBOURNE OIL COMPANY

Tim Harrington
Reservoir Engineer
tharrington@mewbourne.com

Mewbourne Oil Company
Penlon 17 Federal SWD #1
C-108 Attachment
June 17, 2022

STATEMENT REGARDING SEISMICITY

The proposed Penlon 17 Federal SWD is located within the 6–10-mile radius envelope of the recently created Dagger Draw Category 1 Seismicity Response Area (SRA) and Category 2 (M> 3.0 < 3.5) Seismicity Response Area. This Category 1 SRA was implemented due to the occurrence of two earthquakes having a magnitude greater than 2.5, within ten miles of each other, and within a 30-day period. The proposed Penlon 17 SWD is located 7.5 miles from the 3/25/22 earthquake and 9.3 miles from the 4/02/22 earthquake (per USGS data). The Category 2 SRA was designated when a magnitude 3.1 earthquake occurred on 5/14. The Penlon 17 SWD is located 9.6 miles from this earthquake.

Mewbourne is a subscriber to the Nanometrics WTX Array and the table below compares the depth and magnitude of the earthquakes compared to USGS interpretation. The Nanometrics interpretations suggest that the average depth of the earthquakes is around 14,203', which would most likely place the epicenter in the Basement.

DAGGER DRAW SEISMICITY RESPONSE AREA

	USGS			NANOMETRICS		
DATE CDT	MAGNITUDE	DEPTH (MI)	DEPTH (MI)	MAGNITUDE	DEPTH (MI)	DEPTH (MI)
3/25/2022	2.6	3.11	16,421	2.71	2.80	14,784
4/2/2022	2.8	1.14	6,019	2.85	2.72	14,362
5/14/2022	3.1	3.11	16,421	3.2	2.55	13,464
				AVG	2.69	14,203

Mewbourne Oil Company does not believe that the injection of produced water into the Cisco Formation, at the proposed location, will have any impact on seismicity in the area. The depth of our injection zone is significantly shallower (8,270' vs 14,000') than the depths of the recent earthquakes and there are no known faults that would connect the Cisco to the Basement. The closest known mapped "deep" fault, which is documented in public data, is approximately twelve miles southwest of our proposed SWD. Mewbourne has had conversations with an operator, with interpretated 3D seismic nearby our proposed SWD, and no major faults were detected.

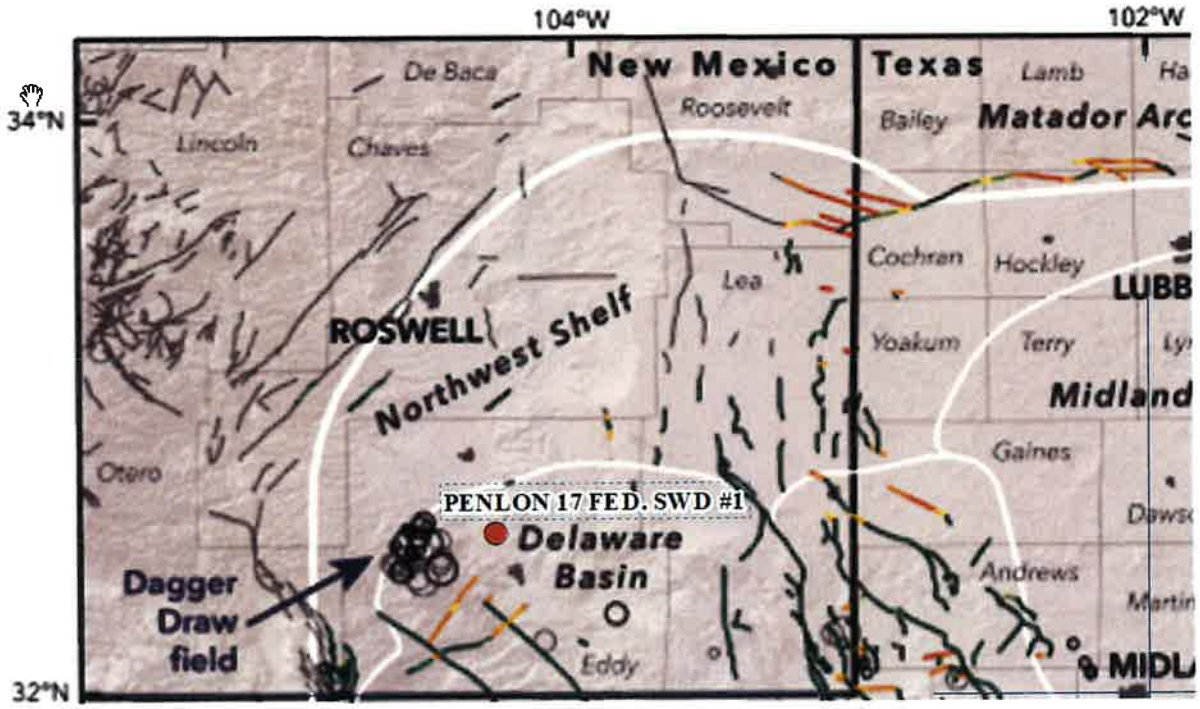
The closest Upper Penn Field SWD, unplugged but shut-in, is located around seven miles to the southwest. Below are some details regarding this well.

API NUMBER	NAME	WNUM	STATUS	DISPOSAL FORMATION	SEC	TWP	RGE	FOOTAGES	TOP INT	BASE INT	OPERATOR	OH / PERF	APPROVAL DAT	PERM #
300150012900	SPRING SWD	#001	ACTIVE	UPPER PENN	4	21S	25E	660 FNL, 330 FEL	8300	8400	DAVID ARRINGTON	PERF	2/2/1970	R-3916

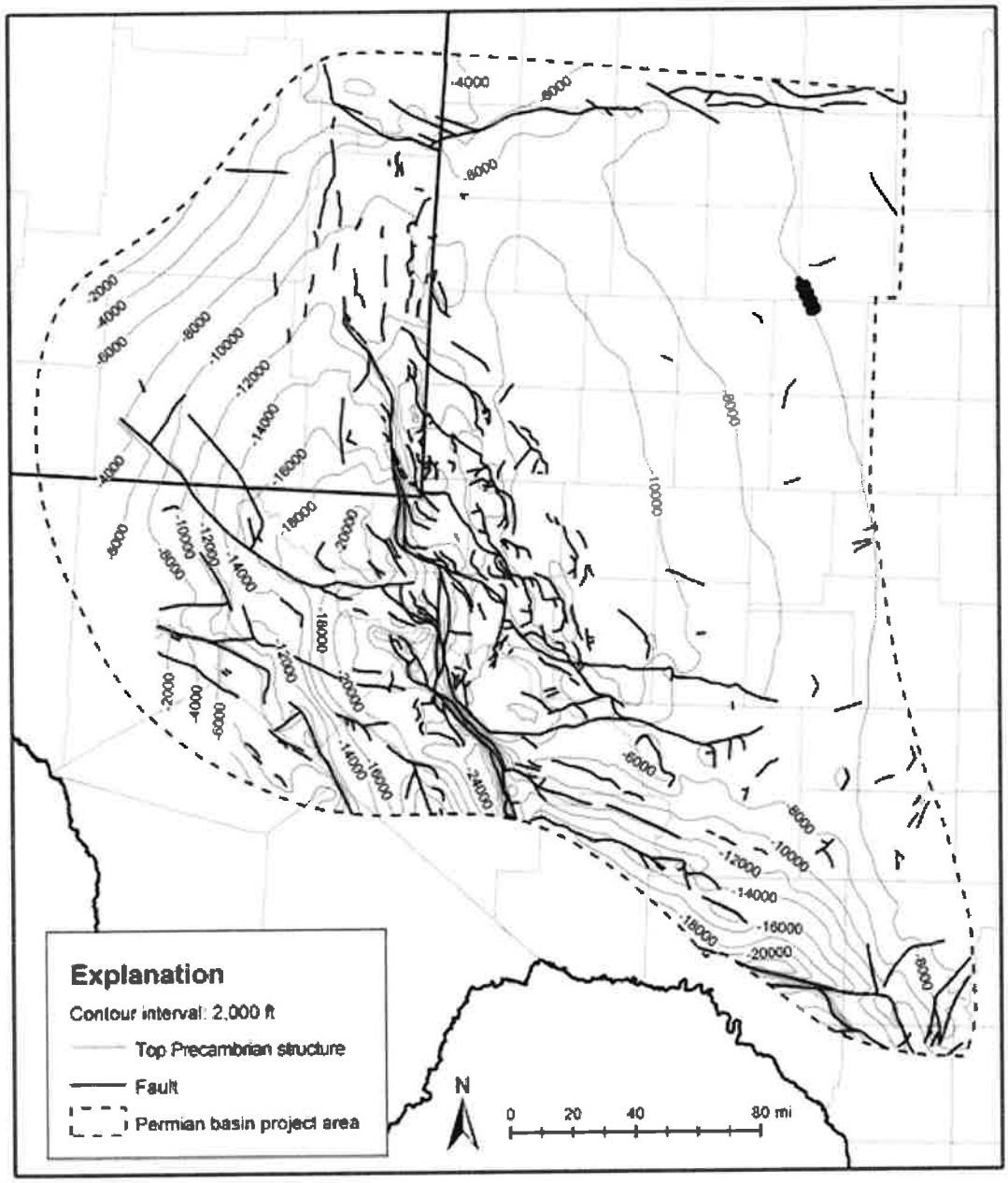
Mewbourne Oil Company
Penlon 17 Federal SWD #1
C-108 Attachment
June 17, 2022

Timothy R. Harrington

Reservoir Engineer
tharrington@mewbourne.com
903-534-7647



Mewbourne Oil Company
Penlon 17 Federal SWD #1
C-108 Attachment
June 17, 2022



Precambrian Structure Map In the Permian Basin (Ruppel etal.)

Mewbourne Oil Company
Penlon 17 Federal SWD #1
C-108 Attachment
June 17, 2022

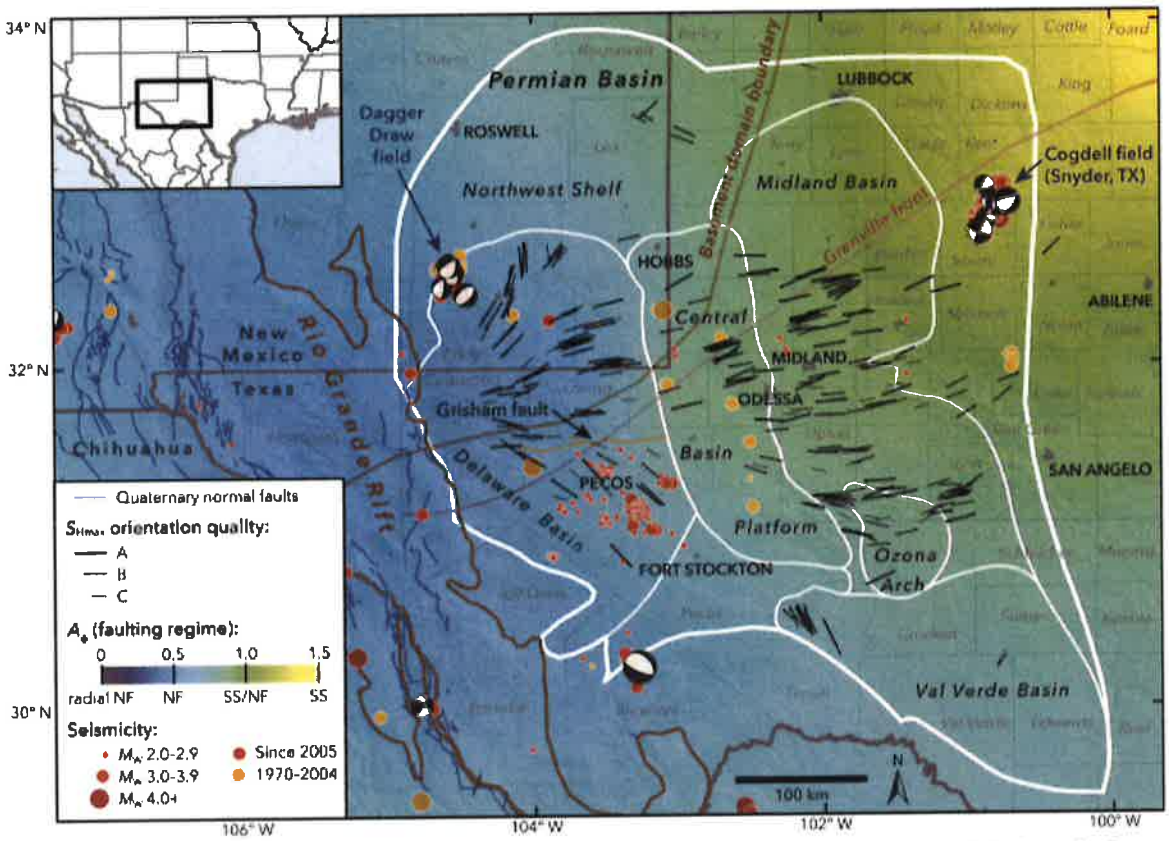


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{Hmax} with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_ϕ parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

Mewbourne Oil Company
Penlon 17 Federal SWD #1
C-108 Attachment
June 17, 2022

References

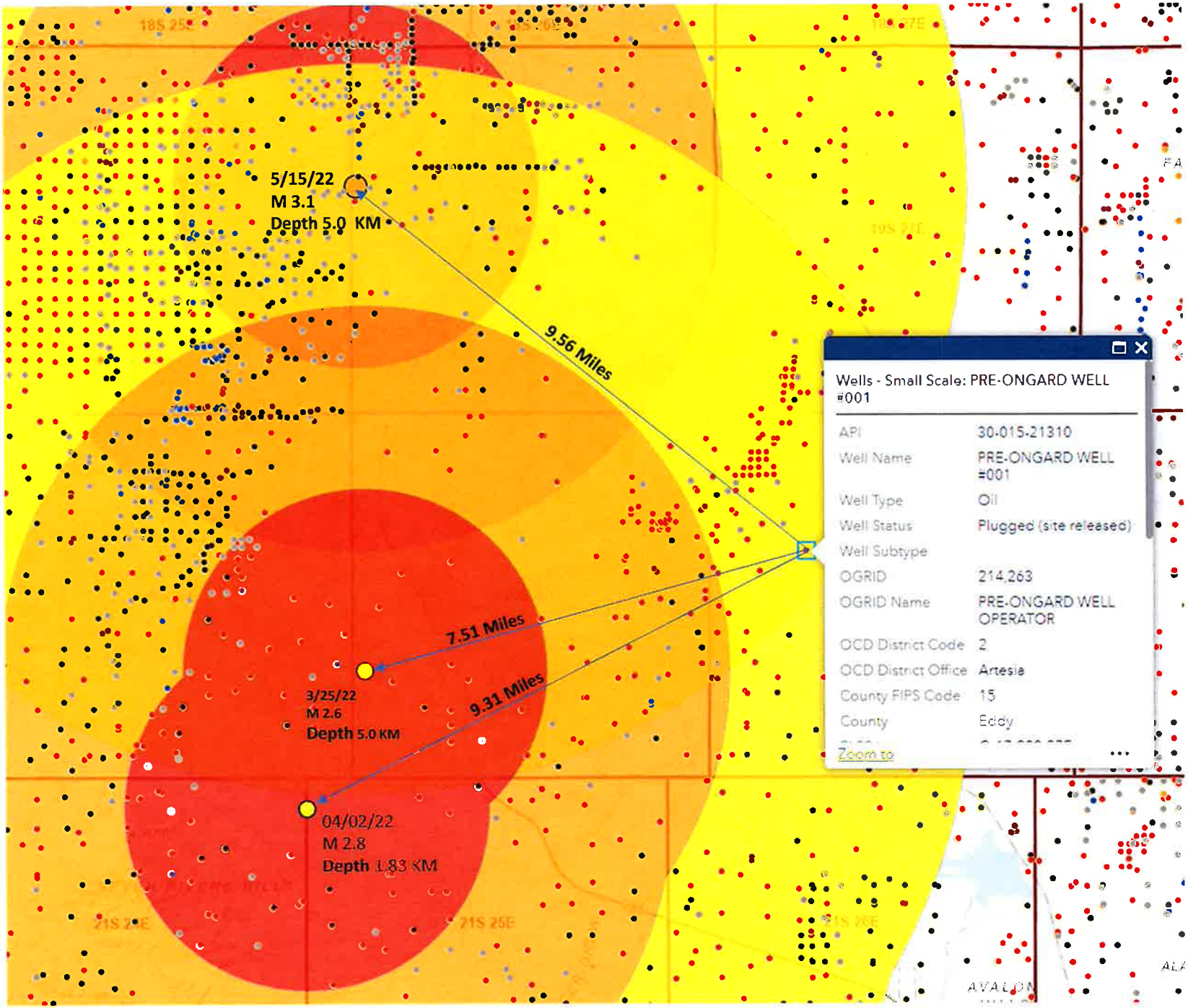
Ewing, T.E., R.T. Budnik, J.T. Ames, and D.M. Ridner, 1990, Tectonic Map of Texas: Bureau of Economic Geology, University of Texas at Austin.

Green, G.N., and G.E. Jones, 1997, The digital geologic map of New Mexico in ARC/INFO format: U.S. Geological Survey Open-File Report.

Jens-Erik Lund Snee and Mark D. Zoback, 2018, State of stress in the Permian Basin, Texas, and New Mexico: Implications for induced seismicity: The Leading Edge, February 2018.

Ruppel, S.C., R.H. Jones, C.L. Breton, and J.A. Kane, 2005 Preparation of maps depicting geothermal gradient and Precambrian structure in the Permian Basin: Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX.

Penlon 17 Federal SWD #1 Dagger Draw Seismic Response Areas



NOTE USGS Data Posted

A **W**

30015274590000
SANTA FE ENR OP PRTN
KANSAS CITY SINGER 1
Datum=3369.00
1980 FSL 860 FEL
TWP: 20 S - Range: 27 E - Sec. 18

4370 ft

30015213100000
MEADCO PROPERTIES
LARIO FEDERAL 1
Datum=3345.00
1650 FNL/2160 FEL
TWP: 20 S - Range: 27 E - Sec. 17

8818 ft

30015326100000
OXY USA WTP LP
OXY JET DECK FEDERA 1
Datum=3315.00
660 FSL 810 FWL
TWP: 20 S - Range: 27 E - Sec. 15

A' **E**

18I-20S-27E

17G-20S-27E

15M-20S-27E

PENN SH Mrkr

0

-500

-1000

Cisco Reef

Base Cisco

Penn Sh Mrkr CBC
8338

U_Fm797
8998

Penn Sh Mrkr CBC
8269

Rec. 6900.00 FT ZW
6900.00 FT ZW
6900.00 FT ZW
6900.00 FT ZW
6900.00 FT ZW

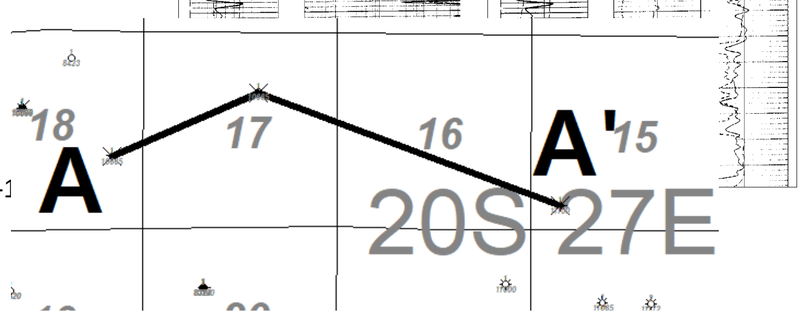
U_Fm797
9017

Penn Sh Mrkr CBC
8975

U_Fm797
9337

TD=10665.00

TD=11100.00



Penlong 17 Federal SWD 1 Cisco Cross Section (A-A')