

DISTRICT I

16<sup>th</sup> S N. French Dr., Hobbs, NM 88240

DISTRICT II

811 South First, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

FORM C-103  
Revised March 25, 1999

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. <b>30-025-06772</b>
1. Type of Well: <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <b>Injection</b>		5. Indicate Type of Lease <input type="checkbox"/> STATE <input type="checkbox"/> FEE
2. Name of Operator <b>Apache Corporation</b>		6. State Oil & Gas Lease No.
3. Address of Operator <b>2000 Post Oak Blvd., Ste. 100, Houston, Texas 77056-4400</b>		7. Lease Name or Unit Agreement Name <b>Northeast Drinkard Unit</b>
4. Well Location Unit Letter <b>F</b> : <b>1980</b> Feet From The <b>North</b> Line and <b>1980</b> Feet From The <b>West</b> Line Section <b>23</b> Township <b>21S</b> Range <b>37E</b> NMPM <b>Lea</b> County		8. Well No. <b>813    WFX-759</b>
10. Elevation (Show whether DF, RKB, RT, GR, etc.) <b>3389'    GR</b>		9. Pool name or Wildcat <b>Eunice N., Blinbry-Tubb-Drinkard</b>

11.

NOTICE OF INTENTION TO:

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

SUBSEQUENT REPORT OF:

- |  |   |   |   |
|--|---|---|---|
| <input type="checkbox"/> Perform Remedial Work | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Remedial Work                            | <input type="checkbox"/> Altering Casing      |
| <input type="checkbox"/> Temporarily Abandon   | <input type="checkbox"/> Change Plans     | <input type="checkbox"/> Commence Drilling Operations             | <input type="checkbox"/> Plug and Abandonment |
| <input type="checkbox"/> Pull or Alter Casing  |   | <input type="checkbox"/> Casing Test and Cement Job               |   |
| <input type="checkbox"/> Other                 |   | <input checked="" type="checkbox"/> Other    Convert to Injection |   |

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or re-completion.

- 8/1/00    MIRU. POH w/ pump & rods. Kill well w/ 60 bbls KCL. Nipple down wellhead. Nipple up BOP. POH w/ tbg.
- 8/2/00    RIH w/ bit & casing scraper to 6400'. Pull out of hole. RIH w/ bit & WS to PBTD @ 6595'. Pull out of hole.
- 8/3/00    RIH w/ packer & WS, set packer @ 5611', test backside to 500#. Release & reset packer @ 6327'. Acidize Drinkard perms 6426' - 6444' and Open Hole 6456' - 6595' w/ 1000 gals 15% HCL
- 8/7/00    RIH w/ injection packer & 2-3/8" poly lined tubing. Pump 60 bbls pkr fluid. Set pkr @ 5634'. Finish loading casing w/ pkr fluid. Attempt preliminary MIT.
- 8/8/00    Nipple down BOP. Nipple up wellhead. Pressure test casing to 500# for 30 mins - tested OK. (See attached). Hook well up to injection system. Put well on injection.

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

SIGNATURE

*Debra J. Anderson*

TITLE

**Sr. Engineering Technician**

DATE

**8/25/00**

TYPE OR PRINT NAME

**Debra J. Anderson**

TELEPHONE NO.

**713-296-6338**

(This space for State Use)

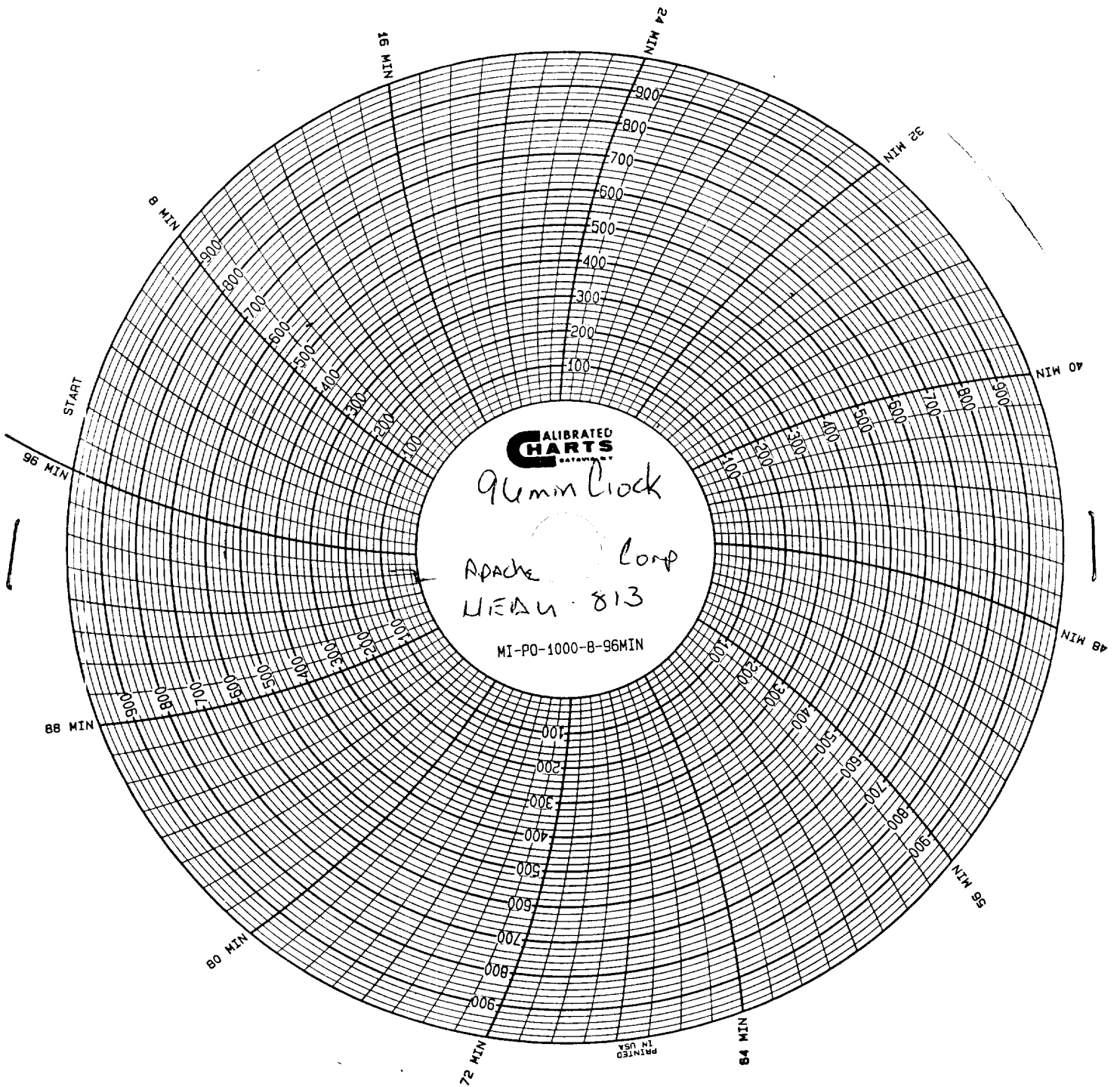
APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

JCSA



Submit to Appropriate District Office

State Lease-6 copies

Fee Lease-5 copies

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State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-105

Revised March 25, 1999

WELL API NO.

30-025-06772

5. Indicate Type of Lease

☐ STATE

☒ FEE

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Northeast Drinkard Unit

8. Well No.

813 WFX-759

9. Pool name or Wildcat

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:

☐ OIL WELL

☐ GAS WELL

☐ DRY

☒ OTHER Injection

b. Type of Completion:

☐ New Well

☐ Workover

☐ Deepen

☐ Plug Back

☐ Diff. Resvr.

☒ Other

2. Name of Operator

Apache Corporation

3. Address of Operator

2000 Post Oak Blvd., Ste. 100, Houston, Texas 77056-4400 / 713-296-6000

4. Well Location

Unit Letter F : 1980 Feet From The North Line and 1980 Feet From The West Line  
Section 23 Township 21S Range 37E NMPM Lea County

10. Date Spudded

11. Date T.D. Reached

12. Date Compl. (Ready to Prod.)

8/8/00

13. Elevations (DF& RKB, RT, GR, etc.)

3389'

14. Elev. Casinghead

GR

15. Total Depth

6600

16. Plug Back T.D.

6595

17. If Multiple Compl. How

Many Zones?

18. Intervals

Drilled By

Rotary Tools

Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

Blinebry 5658 - 6044

Drinkard 6426 - 6595

20. Was Directional Survey Made

21. Type Electric and Other Logs Run

22. Was Well Cored

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	40#	302	17-1/2	150 sx / TOC @ 75' (Calc)	
8-5/8	36#	2852	12-1/4	500 sx / TOC @ 1573' (Calc)	
5-1/2	15#	6456	6-3/4	500 sx / TOC @ 3490' (TS)	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8		5634

26. Perforation record (interval, size, and number)

Blinebry 5658, 60, 67, 70, 72, 83, 85, 5703, 06, 08, 15, 16, 21, 28, 34, 41, 49, 51, 53, 58, 60, 63, 65, 68, 72, 76, 79, 82, 86, 91, 5803, 14, 16, 20, 30, 33, 35, 38, 43, 47, 58, 71, 74, 77, 84, 87, 5928, 32, 41, 52, 78, 91, 6002, 11, 13, 16, 18, 20, 24, 27, 34, 36, 39, 41, 44 - 4" - 68 Holes

Drinkard 6426, 35, 37, 44 - 4" - 4 Holes

6456 - 6595 - Open Hole

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

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
6426 - 6595	Acidize w/ 1000 gals 15% HCL

28. PRODUCTION

Date First Produced on 8/8/00	Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in) Injecting	
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Test Witnessed By

30. List Attachments

C-103 Sundry Notice / MIT Chart

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

Signature

*Debra J. Anderson*

Printed  
Name

Debra J. Anderson

Title

Sr. Engineering Technician

Date

8/25/00

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division Office not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

### Southeastern New Mexico

Northwestern New Mexico

T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Delaware Sand	T. Todilto	T.
T. Drinkard	T. Bone Springs	T. Entrada	T.
T. Abo	T. Rustler	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

## OIL OR GAS SANDS OR ZONES

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

## IMPORTANT WATER SANDS

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

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

## LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology

RECEIVED  
HONOLULU  
OFF



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

ADMINISTRATIVE ORDER NO. WFX-759

D.P.  
N.M.  
P.K.  
J.M.F.

**APPLICATION OF APACHE CORPORATION TO EXPAND ITS WATERFLOOD  
PROJECT IN THE NORTH EUNICE BLINEBRY-TUBB-DRINKARD POOL IN LEA  
COUNTY, NEW MEXICO**

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order No. R-8541 as amended, Apache Corporation has made application to the Division on April 13, 2000, with additional information received on May 4, 2000, for permission to expand its Northeast Drinkard Unit Waterflood Project in the North Eunice Blinebry-Tubb-Drinkard Oil & Gas Pool in Lea County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.
- (6) The application should be approved.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Apache Corporation, be and the same is hereby authorized to inject water into the Blinebry, Tubb and Drinkard formations at approximately 5500 feet to approximately 6750 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells shown in Exhibit 'A' for purposes of secondary recovery.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no greater than .2 psi per foot of depth to the uppermost injection perforations or casing shoe.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Blinbry, Tubb or Drinkard formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-8541 as amended and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

*Administrative Order WFX-759*

*Apache Corporation*

*May 8, 2000*

*Page 3*

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The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

DONE at Santa Fe, New Mexico, on this 8<sup>th</sup> day of May, 2000.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

S E A L

LW/MWA/kv

cc: Oil Conservation Division - Hobbs /  
Case File No. 9232

**EXHIBIT "A"**  
 DIVISION ORDER NO. WFX-759  
**NORTHEAST DRINKARD UNIT WATERFLOOD PROJECT**  
 APPROVED INJECTION WELLS

<i>Well Name</i>	<i>Well No.</i>	<i>Location</i>	<i>Unit</i>	<i>S-T-R</i>	<i>Injection Interval</i>	<i>Packer Depth</i>	<i>Tubing Size</i>	<i>Pressure Gradient</i>	<i>Injection Pressure</i>
NEDU	320	660' FSL & 1780' FWL	W	2-21S-37E	5650'-5925'	5550'	2 3/8"	.2 psi/ft	1130 PSIG
NEDU	405	660' FNL & 1980' FEL	B	10-21S-37E	5550'-6725'	5450'	2 3/8"	.2 psi/ft	1110 PSIG
NEDU	525	500' FNL & 2080' FEL	N	10-21S-37E	5560'-6800'	5460'	2 3/8"	.2 psi/ft	1112 PSIG
NEDU	606	3375' FSL & 3225' FEL	F	15-21S-37E	5700'-6800'	5600'	2 3/8"	.2 psi/ft	1140 PSIG
NEDU	609	660' FNL & 1980' FEL	B	15-21S-37E	5700'-6959'	5600'	2 3/8"	.2 psi/ft	1140 PSIG
NEDU	704	660' FSL & 1980' FWL	N	15-21S-37E	5500'-6630'	5400'	2 3/8"	.2 psi/ft	1100 PSIG
NEDU	707	1725' FSL & 2149' FEL	J	15-21S-37E	5500'-6750'	5400'	2 3/8"	.2 psi/ft	1100 PSIG
NEDU	805	1980' FSL & 1980' FWL	F	22-21S-37E	5650'-6700'	5550'	2 3/8"	.2 psi/ft	1130 PSIG
NEDU	806	660' FNL & 1780' FEL	B	22-21S-37E	5550'-6620'	5450'	2 3/8"	.2 psi/ft	1110 PSIG
NEDU	809	1980' FNL & 660' FEL	H	22-21S-37E	5700'-6615'	5600'	2 3/8"	.2 psi/ft	1140 PSIG
NEDU	813	1980' FNL & 1980' FWL	F	23-21S-37E	5700'-6600'	5600'	2 3/8"	.2 psi/ft	1140 PSIG
NEDU	907	1980' FSL & 1980' FEL	J	22-21S-37E	5450'-6618'	5350'	2 3/8"	.2 psi/ft	1090 PSIG
NEDU	911	1960' FSL & 660' FWL	L	23-21S-37E	5450'-6612'	5350'	2 3/8"	.2 psi/ft	1090 PSIG
NEDU	915	1980' FSL & 1980' FEL	J	23-21S-37E	5500'-6700'	5400'	2 3/8"	.2 psi/ft	1100 PSIG

All wells located in Lea County, New Mexico