

2/3/97	2/18/97	B5	KV	WFX
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

### ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

#### Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
 [DD-Directional Drilling] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

988 - 3

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

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

☒ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

#### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Ernie Buttross  
Print or Type Name

E. L. Buttross Jr.  
Signature

Dist. ENG.  
Title

1/29/97  
Date

# CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS WEX-703

Operator: DELON ENERGY Well: West Pied Lake - 6 Wells  
Contact: ERNE BUSTROS Title: ENG Phone: 905-552-4515  
DATE IN 2-3-97 RELEASE DATE 2-18-97 DATE OUT 3-12-97

Proposed Injection Application is for: ☒ **WATERFLOOD** ☒ **Expansion** ☐ **Initial**  
Original Order: R- 3469 ☒ **Secondary Recovery** ☐ **Pressure Maintenance**  
**SENSITIVE AREAS** ☐ **SALT WATER DISPOSAL** ☐ **Commercial Well**  
☐ **WIPP** ☐ **Capitan Reef** ☐ **Other** \_\_\_\_\_  
Data is complete for proposed well(s)? ☐ Additional Data Req'd ☐

## AREA of REVIEW WELLS

55 Total # of AOR 10 # of Plugged Wells  
465 Tabulation Complete 465 Schematics of P & A's  
465 Cement Tops Adequate ☐ AOR Repair Required

## INJECTION FORMATION

Injection Formation(s) SAN ANGELO  
Source of Water or Injectate GRBG/SEA Compatible Analysis 465

## PROOF of NOTICE

467 Copy of Legal Notice 465 Information Printed Correctly  
465 Correct Operators 465 Copies of Certified Mail Receipts  
10 Objection Received ☐ Set to Hearing \_\_\_\_\_ Date \_\_\_\_\_

NOTES: SO2 UPPER PERMS ON #36, 71, 74

## APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? 465

### COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<input checked="" type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	<u>3-18-97</u> Date	Nature of Discussion	<u>VERBAL APPROVAL</u>
2nd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion	_____
3rd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion	_____



ENERGY CORPORATION

20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone 405/235-3611  
FAX 405/552-4550

January 28, 1997

State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 88505

Attention: Ben Stone

**RE: West Red Lake Unit #26, #36, #47, #63, #71, & #74  
Section 8-T18S-R27E  
Eddy County, New Mexico**

Gentlemen:

Enclosed please find our Application for Authorization to Inject for each of the above captioned wells.

Devon Energy Corporation also requests that the maximum injection pressures for these wells be higher than .2 psi per foot of depth to the uppermost injection perforation. This request is based on the data in Table I which shows the frac gradients obtained from stimulation treatments on wells in the area. Figure I is a map showing the location of the proposed injectors and the wells used in this study.

The frac gradient is used to calculate the maximum surface injection pressure (injection wellhead pressure gradient x depth to the uppermost perforation = maximum surface injection pressure) that can be attained without fracturing the formation. Provided the calculated wellhead pressure gradient is not exceeded, the formation cannot be fractured and injection fluids will be contained in the formation. This has been confirmed through injection surveys run on existing injection wells in the unit.

Based on the attached information, Devon respectfully request that the **maximum wellhead pressure gradient for the proposed injection wells be .77 psi per foot of depth to the uppermost perforation**. This is the average for the eight wells in the area of interest. We will also periodically run injection surveys to ensure that injection is confined to the San Andres formation.

If you have any questions, please give me a call at 405-552-4509.

Sincerely,

A handwritten signature in cursive script that reads "Ernie Buttross". The letters are fluid and connected, with a prominent "E" and "B".

Ernie Buttross  
District Engineer

1268  
1656  
1657  
1972

2081  
2104

#38-1290-98 SQ2

PRIOR TO INS.

#71  
SQ2 PERKS  
1194-96

#74 SQ2  
1196-1225

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: XX Secondary Recovery        Pressure Maintenance        Disposal        Storage  
Application qualifies for administrative approval?   X   Yes        No
- II. OPERATOR: Devon Energy Corporation (Nevada)  
ADDRESS: 20 N. Broadway, Ste 1500, Oklahoma City, OK 73102  
CONTACT PARTY: E. L. Buttross, Jr. (405) 235-3611 PHONE: ext 4509
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary. REFER TO ATTACHMENT III
- IV. Is this an expansion of an existing project: XX Yes        No  
If yes, give the Division order number authorizing the project R-3469 3824cs file
- 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.  
REFER TO ATTACHMENT V
- 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. REFER TO ATTACHMENT VI
- 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.).
- REFER TO ATTACHMENT VII
- \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological 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.  
REFER TO ATTACHMENT VIII
- IX. Describe the proposed stimulation program, if any. Will acidize perforations with 5000 gals 15% NEFE
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.) PREVIOUSLY FILED
- \* 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.  
THERE ARE NO FRESH WATER WELLS IN THIS AREA.
- 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 source of drinking water. REFER TO ATTACHMENT XII
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.  
REFER TO ATTACHMENT XIII
- 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: E. L. Buttross, Jr. TITLE: District Engineer  
SIGNATURE: E. L. Buttross Jr. DATE: 1/29/97
- \* 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 circumstance of the earlier submittal. \_\_\_\_\_

### 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 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, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

**NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.**

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**NOTICE:** Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.





TABLE I			
AVERAGE INJECTION WELLHEAD PRESSURE GRADIENTS			
WEST RED LAKE UNIT			
W. RED LAKE UNIT WELL NO.	DEPTH TO TOP PERF (FT)	FRAC GRADIENT (PSI/FT)	WELLHEAD PRESSURE GRADIENT (PSI/FT)
36	1657	1.22	0.75
47	1656	1.11	0.64
63	1656	1.24	0.77
64	1689	1.25	0.78
71	1194	1.23	0.76
73	1552	1.19	0.72
74	1196	1.41	0.94
75	1580	1.32	0.85
<b>Average</b>	<b>1522</b>	<b>1.24</b>	<b>0.77</b>

# DEVON ENERGY CORPORATION

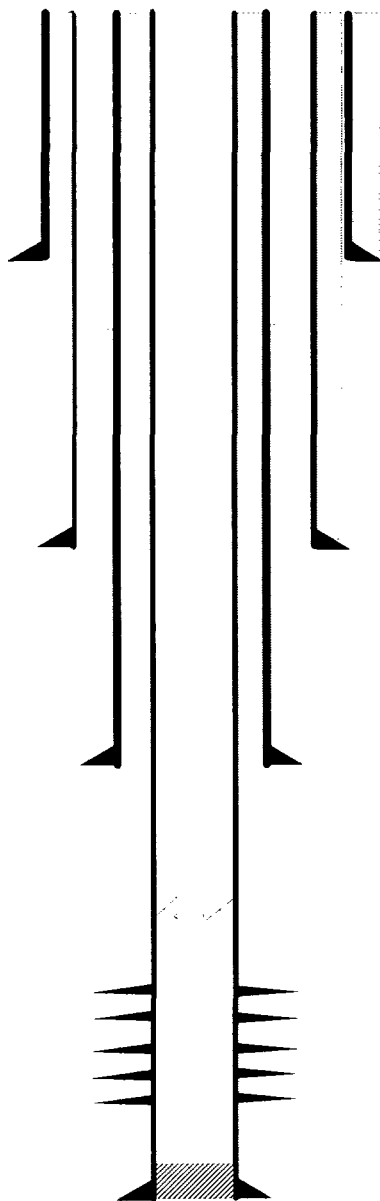
## WELLBORE SCHEMATIC

### ATTACHMENT III

75

WELL NAME: West Red Lake Unit # 26	FIELD: Red Lake	STATE: NM
LOCATION: 2340' FSL & 400' FEL of 8-18S-27E	COUNTY: Eddy	
ELEVATION: DF 3495'	SPUD DATE: 12/6/37	COMP DATE: 5/24/38
API#:	PREPARED BY: D. Keys	DATE: 11/19/96

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0-580'	10"	40#			
CASING:	0-1140'	8-5/8"	32#			
CASING:	0-1336'	7"	24#			
LINER:	0-2125'	4-1/2"				
TUBING:	0-+/- 1875'	2-3/8"				



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

10" surface csg, set @ 580.

TOC 1025' (Cemoton Log 10/61)

8-5/8" intermediate csg, set @ 1140' TOC @ surface.

7" production csg, set @ 1336'.

2-3/8" fiberglass or IC tbg set @ +/- 1875' w/a PC AD-1 tension pkr.

INJECTION INTERVAL THROUGH San Anders Perfs:

1972-1978' (6); 1986-1992' (6); 1995-2001' (6) 2006-2012' (6)  
2021-2027' (6); 2032-2050' (18); and 2057-2081' (24)

TD @ 2114'

4-1/2" liner f/surface to 2125' with 125 sxs of cmt. cmt did not circ,  
ran 1" pipe on outside of csg & cmt'd w/200 sxs cmt, TOC @ surf

# DEVON ENERGY CORPORATION

## WELLBORE SCHEMATIC

### ATTACHMENT III

WELL NAME: West Red Lake Unit # 26

FIELD: Red Lake

LOCATION: 2340' FSL & 400' FEL of 8-18S-27E

COUNTY: Eddy

STATE: NM

ELEVATION: DF 3495'

SPUD DATE: 12/6/37

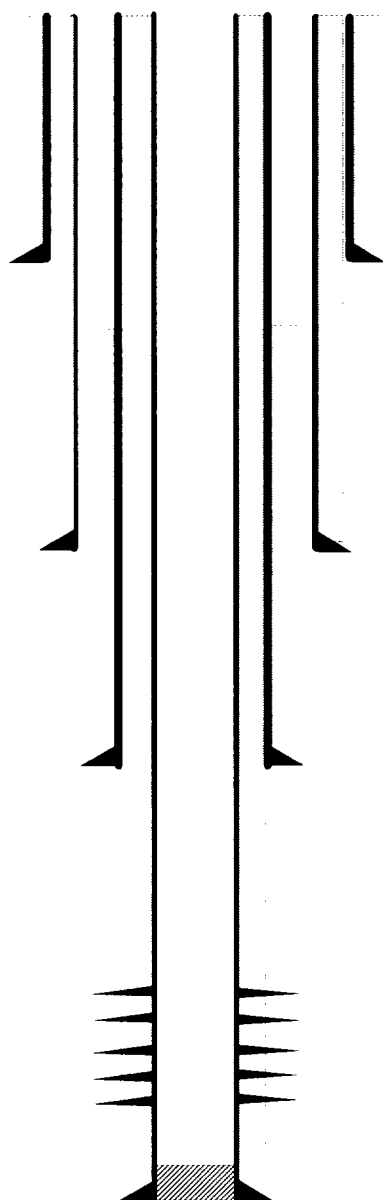
COMP DATE: 5/24/38

API#:

PREPARED BY: D. Keys

DATE: 11/19/96

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0-580'	10"	40#			
CASING:	0-1140'	8-5/8"	32#			
CASING:	0-1336'	7"	24#			
LINER:	0-2125'	4-1/2"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

10" surface csg, set @ 580.

TOC 1025' (Cemoton Log 10/61)

8-5/8" intermediate csg, set @ 1140' TOC @ surface.

7" intermediate csg, set @ 1336'.

San Anders Perfs:

1972-1978' (6); 1986-1992' (6); 1995-2001' (6) 2006-2012' (6)

2021-2027 (6); 2032-2050' (18); and 2057-2081' (24)

TD @ 2114'

4-1/2" csg f/surface to 2125' with 125 sxs of cmt, cmt did not circ,  
ran 1" pipe on outside of csg & cmt'd w/200 sxs cmt, TOC @ surf

## **ATTACHMENT III (tabular)**

### **Well Data**

- A. (1) West Red Lake #26  
2340' FSL & 400' FEL "I"  
Section 8-18S-27E  
Eddy County, NM
- (2) Please refer to the wellbore schematic labeled Attachment III - (schematic)  
**Surface: 10" 40# @ 580' TOC surface.**  
**Intermediate: 8-5/8" 32# @ 1140' TOC surface.**  
**Intermediate: 7" 24# @ 1336', TOC surface.**  
**Production: 4-1/2" set @ 2125' w/125 sxs cmt, TOC surf.**  
(Also see schematic for any existing tbg and/or liner used)
- (3) Tbg will be 2-3/8" fiberglass or internally coated, set @ 1875'.
- (4) We will use a 5-1/2" x 2-3/8" plastic coated AD-1 tension packer to be set @ 1875' +/-.
- B. (1) The injection formations will be the San Andres in the Red Lake (Q-GB-SA) Field.
- (2) The proposed interval will be approximately 1972-2081' . The injection interval will be through or existing perforations 1972-2081'
- (3) This well was originally drilled and completed as an oil well. It produced from the San Andres Formations.
- (4) Please refer to the wellbore schematic labeled Attachment III (schematic) for depths of other perforated intervals and detail on the sacks of cement.
- (5) There are no known lower oil formations.

## **Attachment VII**

Devon Energy Corporation  
West Red Lake #26  
2340' FSL & 400' FEL "I"  
Section 8-18S-27E  
Eddy County, NM

### **Proposed Operation:**

1. Plans are to inject 800 barrels of produced water per day.
2. The Injection system will be a closed system.
3. The proposed injection pressure is 800 psig. Maximum pressure will be .77 psi/ft of depth to the top perforation (see attached memo).
4. The injection fluid will be Grayburg/San Andres produced water.
5. See attached water analysis.

## **Attachment VIII**

Devon Energy Corporation  
West Red Lake #26  
2340' FSL & 400' FEL "I"  
Section 8-18S-27E  
Eddy County, NM

### **Geology and Lithology**

Injection zones are sand lenses within the San Andres formations at an average depth 1972-2081'. Specifically they are:

San Andres

Fresh Water Zones

Base of near surface aquifer 500'. No fresh water zones exist below the proposed injection interval.

## **Attachment XII**

Devon Energy Corporation  
West Red Lake #26  
2340' FSL & 400' FEL "I"  
Section 8-18S-27E  
Eddy County, NM

No evidence of fault communication between the shallow aquifers and the proposed injection zones has been encountered as the result of detailed studied of formations in West Red Lake Unit.

### **Proof of Notice**

Devon Energy Operating Corporation operates the West Red Lake Unit in Section 8 of 18S-27E, Eddy County, NM. Operators operating in area of review:

Breck  
Yates  
Amoco  
Arco  
Compton  
Simon

Each of these operators were provided a letter and a copy of our application by certified mail. Copies of the letters are enclosed, proof of notice will follow.

The Bureau of Land Management is the surface owner. They have been notified by letter with a copy of our application.

### **Proof of Publication**

Proof of Publication from the Carlsbad Current-Argus is enclosed.

Form 9-321a  
(Feb. 1951)

OPERATOR'S COPY

Budget Bureau No. 42-R358.4.  
Approval expires 12-31-60.

**APPROVED**  
NOV 15 1961  
RONNIE E. SHOOK  
ACTING DISTRICT ENGINEER

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office \_\_\_\_\_  
Lease No. W.K. 0175 (a)  
Unit I

**SUNDRY NOTICES AND REPORTS ON WELLS**

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	" <b>Water Frack</b>

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 10, 1961, 19\_\_

Vandagriff  
Well No. #1 is located 2340 ft. from ///N line and 400 ft. from ///E line of sec. 8  
NE 1/4 SE 1/4 Sec. 8 183-27E, N.M.P.M.,  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
RED LAKE EDDY NEW MEXICO.  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 3495 ft.

**DETAILS OF WORK**

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

On October 18, 1961 we fracked well, using  
80,000 gallons of water and 50,000 pounds of sand.

Before fracking and completion of this work, well  
was making about two barrels per day. Well is now placed on pump  
and pumping back load water.

Work done by Halliburton Oil Well Cementing Co.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company MILDRED CRANE HUDSON

Address DRAPER T

ARTESIA, NEW MEXICO

By Mildred Crane Hudson  
Title OPERATOR.



Form 9-531a  
(Feb. 1961)

OPERATOR'S COPY

Budget Bureau No. 42-R363.4  
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

Land Office LOS ANGELES

Lease No. N.M. 08175 E(9)

Unit I

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 18, 1961, 19

Vandagriff

Well No. #1 is located 2340 ft. from SW line and 400 ft. from E line of sec. 8

NE 1/4 Sec. 8

18-S, 27-E,

N.M.P.M.

(1/4 Sec. and Sec. No.)

(Twp.)

(Range)

(Meridian)

RED LAKE

EDDY

NEW MEXICO

(Field)

(County or Subdivision)

(State or Territory)

The elevation of the derrick floor above sea level is 3495 ft. (L.S.)

OCT 19 1961

DETAILS OF WORK

U. S. GEOLOGICAL SURVEY

ARTESIA, NEW MEXICO

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

On October 11, 1961 we ran 2125' of 4-1/2" O.D. casing, cemented same with 125 sacks and cement did not circulate. We ran 480' of 1" pipe on the outside of casing and cemented to surface with 200 sacks of cement.

Work was done by Halliburton Oil Well Cementing Company.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company MILDRED CRANE HUDSON

Address DRAWER T

ARTESIA, NEW MEXICO

By [Signature]

Title Operator.

Form 9-331a  
(Feb. 1951)

Copy to: Buswell  
NMOC(2)

Budget Bureau No. 42-R355.4  
Approval expires 12-31-63.

Land Office Las Cruces

Lease No. E.M. 0275 A

Unit I

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

ILLEGIBLE

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			
<u>RE-Work Well</u>	<u>X</u>		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

September 26, 1961, 19

Vandagriff  
Well No. #1 is located 2340 ft. from XNN line and 400 ft. from [E] line of sec. 8  
NE/4 SE/4 Sec. 8 18-S, 27-E Body N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Red Lake Body New Mexico  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 3495 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudlogging jobs, cementing points, and all other important proposed work)

We plan to re-work this well with the following program:

Clean out to approximately 2,150', setting 4" liner, bringing liner up into 5-1/2" casing, cementing same. We then plan to perforate and frack with 60,000# sand.

Work to be done by the Apache Drilling Company,  
Artesia, New Mexico.

RECEIVED

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Willard Brown Hudson  
W. B. HUDSON, GEORGE  
Address DRAFTER 2,  
ARTESIA, NEW MEXICO  
By W. B. Hudson  
Title Operator

Artesia, N.M.  
July 13, 1942

Mr. Glenn Staley  
Hobbs, New Mexico

Dear Sir:

We have just completed the cleaning out of the Vandagriff Well #1 located Section 8, NE/4 of SE/4, 12S-27E. This well has not produced any oil since August, 1941, as our reports to you indicate. We do not have an allowable on this well. Since cleaning out and making a test, the well is now making approximately 12 bbls. of oil and 3 bbls. of water.

Would you please notify us our allowable for the month of July; also advise the New Mexico Asphalt & Refining Company to whom we are now selling the oil.

As I am sure you know, we have recently acquired these properties from McGinley & Heartwell. We intend to work over all these old wells. We have put in some new pumping equipment which has helped our production a little on the Mann and Brainard Leases, and we are now making 1 to 2 bbls. per day more than the allowable you gave us for the month of June. As both these leases are making some water, may we get the allowable for July increased to take care of this extra production.

With advanced thanks, we are

Yours very truly,

H. E. McGinley, Jr.  
for  
MCGINLEY & HEARTWELL

MRW:mh

**ILLEGIBLE**

(SUBMIT IN TRIPLICATE)

U. S. Land Office Las Cruces  
#026855  
Lease or permit No. \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	
Report on completion of plugging work.	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

July 18, 1942

Vandagriff  
Well No. 1 is located 2340 ft. from [N] line and 400 ft. from [E] line of sec. 8  
NE/4 of SE/4 18S 27E N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Artesia Eddy New Mexico  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Plugged back from 2045' to 1995', using fifteen sacks of cement only; making approximately 12 bbls. of oil with approximately 3 bbls. of water. Work completed July 12, 1942.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H. J. Heartwell  
Box 792  
Address Artesia, N.M.  
1413 Ft. Worth Natl. Bank Bldg.  
Fort Worth, Texas

By H. J. Heartwell  
Title Box 792, Artesia, N.M.

D

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 997  
Roswell, New Mexico  
June 23, 1942

Mr. H. J. Heartwell  
Box 792  
Artesia, New Mexico

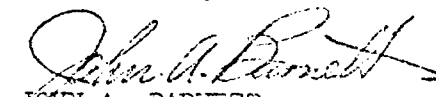
Re: Lease Las Cruces 026855

Dear Sir:

Receipt is acknowledged of your "Notice of Intention to Plug Back", dated June 22, 1942, covering Vandagriff #1 well, on the subject land, in the SE $\frac{1}{4}$  of section 8, T. 18 S., R. 27 E., Eddy County, New Mexico.

The attached notice is approved, on the condition that results of the proposed work will be submitted to this office, by proper written report, within ten days after completion.

Very truly yours,

  
JOHN A. BARNETT,  
District Engineer.

JAB:th

cc: 1413 Ft. Worth Natl. Bank Bldg.  
Fort Worth, Texas



(SUBMIT IN TRIPLICATE)

U. S. Land Office Los Alamos  
026855  
Lease or permit No. \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			
" " " " <u>PLUG BACK</u>	<input checked="" type="checkbox"/>		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

June 22, 1942

Vandagriff  
Well No. 1 is located 2340 ft. from N line and 400 ft. from E line of sec. 3  
NE/4 of SE/4 18S 27E N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Artesia Eddy New Mexico  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 2495 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Propose to plug back approximately 60 feet from 2045' to 1930'  
using cement only. *oil show was encountered at 1930-1980. water showing at 1980 to present*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H.J. Heartwell  
Address Box 792  
Artesia, N.M.  
1413 Ft. Worth Natl. Bank Bldg.  
Fort Worth, Texas  
By H.J. Heartwell  
Title Lease Supt.,  
Box 792, Artesia, N.M.

Mr. John A. Barnett,  
District Engineer  
Department of Interior  
Geological Survey  
P.O. Box 997  
Roswell, New Mexico

ILLEGIBLE

Dear Mr. Barnett:

We would like your cooperation to do some work on plugging back with about ten sacks of cement on Vandagriff Well #1, Lease Tract 626853, located NE/4 of the SW/4 of Section 13, Twp. 13, Range 27 East. The total depth of the well now is 2045', and we would like to plug back to about 1990'. The water has been cleaned out and by plugging back to this depth, we hope to be able to overcome the water trouble.

We would like to start this work about the 23rd.

We do not have any forms "Monthly Logs and Reports on Wells", so trust that 1500-111 is sufficient. Kindly send us a set. In the future requests and reports may be filled out.

Yours very truly,

H. S. Grier,  
District Engineer,  
H. S. Grier

HGG:sh

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 907  
Roswell, New Mexico  
May 25, 1942

ILLEGIBLE

Mr. H. J. Heartwell  
Box 792  
Artesia, New Mexico

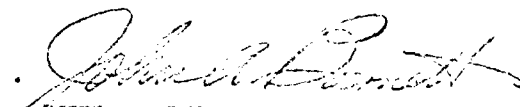
Re: Lease Las Cruces 025835

Dear Sir:

Receipt is acknowledged of your "Notice of Intention to Repair Well", dated May 25, 1942, covering Vandagriff #1 well, on the subject land in the SW 1/4 of section 8, T. 13 S., R. 27 E., Eddy County, New Mexico.

The attached notice is approved, on the condition that results of the proposed work will be submitted to this office, by proper written report, within ten days after completion.

Very truly yours,

  
JOHN A. BENNETT,  
District Engineer.

JAB:th

cc: 1413 Ft. Worth Natl. Bank Bldg.  
Fort Worth, Texas



(SUBMIT IN TRIPLICATE)

U. S. Land Office.....

Lease or permit No. ....

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Well No. Vandagriff 2340 is located 3 ft. from N line and 400 ft. from E line of sec. 8  
NE 4 (1/4 Sec. and Sec. No.) 110 (Twp.) 21E (Range) ..... (Meridian)  
Artavia (Field) ..... (County or Subdivision) ..... (State or Territory)

The elevation of the derrick floor above sea level is 3450 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

We plan to re-cleanup. .....  
would like to commence this work on 27th March, 1940.

ILLEGIBLE

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H. J. Earlwell  
Box 192  
Address Artesia, New Mexico  
1413 St. Hart Hill, Box 410 By H. J. Earlwell  
Fort Worth, Texas Title .....

d

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 997  
Roswell, New Mexico  
April 10, 1940

Mr. N. G. Carter  
P. O. Box 792  
Artesia, New Mexico

Dear Sir:

We are returning herewith the one copy of your "Subsequent Report of Water Shut-Off" covering the Vandagriff test located in Sec. 8, T. 18 S., R. 27 E.

It is necessary that all sundry notices and reports be submitted to this office in triplicate.

The U. S. Land Office and lease number should be inserted on the form in the space provided at the upper right hand corner of the sheet. It is also noted that you have indicated the well as being in Sec. 5, T. 18 S., R. 27 E., whereas it is actually in Sec. 8.

Please correct and complete this report and forward three copies of same to this office for proper handling.

Very truly yours

  
JOHN A. BARNETT  
District Engineer.

JAB:EBA

Indian Agency.....

(SUBMIT IN TRIPLICATE)

U. S. Land Office

Lease or permit No. 026825

Allottee.....

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Lease No. ....

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	<input type="checkbox"/>
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	<input type="checkbox"/>
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	<input type="checkbox"/>
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	<input type="checkbox"/>
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	<input type="checkbox"/>
NOTICE OF INTENTION TO ABANDON WELL.....		<input type="checkbox"/>

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Well No. No. 1 is located 2340 ft. from N line and 400 ft. from E line of sec. 28  
SE 1/4 (1/4 Sec. and Sec. No.) 18S (Twp.) 27E (Range) N.M.P.M. (Meridian)  
Artisia (Field) Eddys (County or Subdivision) New Mexico (State or Territory)

The elevation of the derrick floor above sea level is ..... ft.

## DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Plugged back from 2072 - to 2045 feet.  
 Material used. Approximately 16 ft gravel.  
 2 sacks cement. about 20 ft 3/4 rope  
 150 lbs lead wool.

all material used formed a plug of approximately  
 2.7 feet. Present total depth 2045 ft. (at the time of  
 filing this report water is shut off.)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H. J. Hartwell

Address Box 792, Artisia N.M.  
1301 Ft. Worth Nat'l Bank Bldg.  
Ft. Worth Texas.

By

Title

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 997  
Roswell, New Mexico  
March 30, 1940

Mr. H. J. Heartwell  
1301 Ft. Worth Nat'l Bank Bldg.  
Fort Worth, Texas

ITB Los Angeles 026455

Dear Sir:

Receipt is acknowledged of your "Notice of Intention to Plug Back" dated March 28, 1940, covering your Vandagriff No. 1 well on the subject land in the SE $\frac{1}{4}$  of Sec. 8, T. 18 S., R. 27 E.

The attached notice is approved on the condition that results of the proposed work will be submitted by proper written report to this office within ten days of completion.

Very truly yours

*John A. Barnett*  
JOHN A. BARNETT  
District Engineer.

JAB:MEA

cc: H. G. Carter  
P. O. Box 792  
Artesia, N. M.

Indian Agency.....

(SUBMIT IN TRIPLICATE)

U. S. Land Office.....

Lease or permit No.....

Allottee.....

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Lease No.....

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
Notice of Intention to Plug Back.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

March 21, 1940, 19

Vandegriff  
Well No. 1 is located 2340 ft. from [N] line and 400 ft. from [E] line of sec. 2

Range 15 S. Twp. 27 N. Meridian  
(Range) (Meridian)  
Artesia Edg. New Mexico  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

"Propose to plug back approximately 20', use rock, cement, rope, and lead wool."

Work to be started March 29, 1940; plugging from present plugged-back depth of 2072 up to about 2050. Purpose is to shut-off bottom hole water during the next one barrel daily.

ILLEGIBLE

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H. J. Hoartzell

Box 792

Address Artesia, New Mexico

1301 W. North Nat'l Bank Bldg.  
Fort Worth, Texas

By H. G. Carter

Title Driller

Indian Agency.....

(SUBMIT IN TRIPLICATE)

U. S. Land Office.....

UNITED STATES

Lease or permit No. 026855

Allottee.....

DEPARTMENT OF THE INTERIOR

Lease No. ....

GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT <del>OR ACIDIZE</del> <input checked="" type="checkbox"/> .....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Roswell, New Mexico December 20, 1939

Well No. 1 is located 300 ft. from N line and 400 ft. from E line of sec. 8

NE 1/4 Sec. 8 18s 27E N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Artesia, Edgar New Mexico  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is ..... ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Plan to plug back from 2055 to 2025 ft, approximately 30 ft, with rock, rope and leadwool, also plan to shoot with enough Jellotine to shoot 100 ft. from bottom 2025 ft. to 1925 ft.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H. J. Heartwell

Address Ft. Worth National Bank Building

Ft. Worth, Texas.

By M. Y. Carter

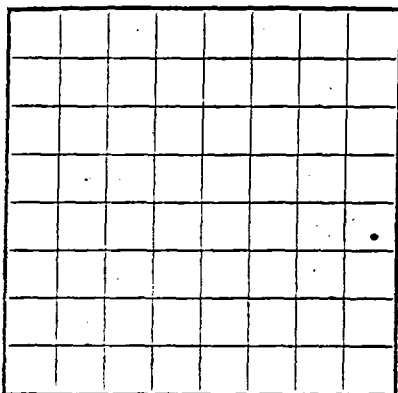
Title Driller.

Form 9-330

U. S. LAND OFFICE ~~N.M.~~ 04175-A

SERIAL NUMBER \_\_\_\_\_

LEASE OR PERMIT TO PROSPECT \_\_\_\_\_



LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Mildred Crane Hudson Address Braver T. Artesia, New Mexico

Lessor or Tract Lee Vardagriff Field Artesia State New Mexico

Well No. 1 Sec. 8 T. 18S R. 27E Meridian N.M.P.M. County Eddy

Location 2340 ft. (S) of N Line and 400 ft. (E) of E Line of NE SE Elevation \_\_\_\_\_  
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed \_\_\_\_\_

Date May 24, 1938 Title \_\_\_\_\_

The summary on this page is for the condition of the well at above date.

Commenced drilling December 6, 1937. Finished drilling April 12, 1938.

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from \_\_\_\_\_ to \_\_\_\_\_ No. 4, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 5, from \_\_\_\_\_ to \_\_\_\_\_

No. 3, from \_\_\_\_\_ to \_\_\_\_\_ No. 6, from \_\_\_\_\_ to \_\_\_\_\_

IMPORTANT WATER SANDS

No. 1, from 1086 (Artesian) to 1088 No. 3, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from 1311 (Sulphur) to 1344 No. 4, from \_\_\_\_\_ to \_\_\_\_\_

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	From	To
10"	40#	8	Youngstown	580'	Texas Pattern			
8 1/2"	32#	8		1140'				
7 1/2"	24#	10		1336'				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used

# PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... pth set .....  
 Adapters—Material ..... Size .....

## SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

## TOOLS USED

Rotary tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet  
 Cable tools were used from ..... Top ..... feet to ..... Bottom ..... feet, and from ..... feet to ..... feet

## DATES

....., 19..... Put to producing ..... 19.....  
 The production for the first 24 hours was ..... barrels of fluid of which .....% was oil; .....%  
 emulsion; .....% water; and .....% sediment. Gravity, °Bé. ....  
 If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....  
 Rock pressure, lbs. per sq. in. ....

## EMPLOYEES

..... H. G. Carter ..... Driller ..... Driller  
 ..... Dan E. Webb ..... Driller ..... Driller

## FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2		Surface
2	3		Gyp Rock
3	4		Red Clay
4	8		Gyp Rock
8	14		Red Clay
14	20		Gyp Rock
20	60		Gyp Rock and Red Clay
60	75		Gray Lime
75	122		Anhydrite
122	140		Anhydrite and Blue Shale
140	160		Anhydrite and Red Bed
160	222		Anhydrite Hard
222	226		Blue Lime and Sulphur
226	233		White Lime
233	240		Blue Shale
240	255		White Gyp - Some water
255	425		Anhydrite
425	455		Blue Shale
455	485		Brown Shale
485	500		Anhydrite
500	503		Red Bed
503	530		Anhydrite
530	532		Gray Shale
532	535		Sand

(OVER)

16-43004-4

LOUISIANA STATE UNIVERSITY



# FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
535	555		Brown Shale
555	565		Anhydrite
565	580		Brown Shale and Anhydrite
580	625		Gyp and Anhydrite
625	675		Gyp and Anhydrite, redbed and anhydrite
675	705		Anhydrite and Gyp
705	750		Anhydrite, Brown Shale and Sand
750	772		Anhydrite
772	793		Redbed and Anhydrite
793	811		Brown Shale and Anhydrite
811	874		Anhydrite
874	900		Anhydrite, Brown Shale and Redbed
900	917		Anhydrite
917	946		Anhydrite and Gyp
946	1000		Brown Sand (Some water) Anhydrite, Gyp
1000	1030		Brown Sand and Shale, carrying water
1030	1074		Redbed, Brown Shale and gyp
1074	1055		Gray Lime
1055	1060		Redbed
1060	1062		Lime
1062	1078		Redbed
1078	1311		Lime (1086-1088 water, Artesian)
1311	1314		Brown Sand (Hole full of Sulphur water)
1314	1640		Lime, white
1640	1690		Brown lime
1690	1705		Gray Lime
1705	1760		Brown Lime
1760	1790		Gray Lime
1790	1820		Dark Brown Lime
1820	1875		Sandy Brown Lime
1875	1900		Gray Lime
1900	1925		Gray and Brown Lime
1925	1935		Sandy Brown Lime
1935	1955		Brown Lime
1955	1990		Dark Sandy Gray Line
1990	2007		Brown Lime
2007	2035		Gray Lime
2035	2050		Soft Gray Lime
2050	2085		Dark Gray Lime

1760 -1770 Gray Brown Lime, oil showing; 1840-1875 Oil and gas showing;

1925-1945 Oil Showing; 1955-1990 Free oil

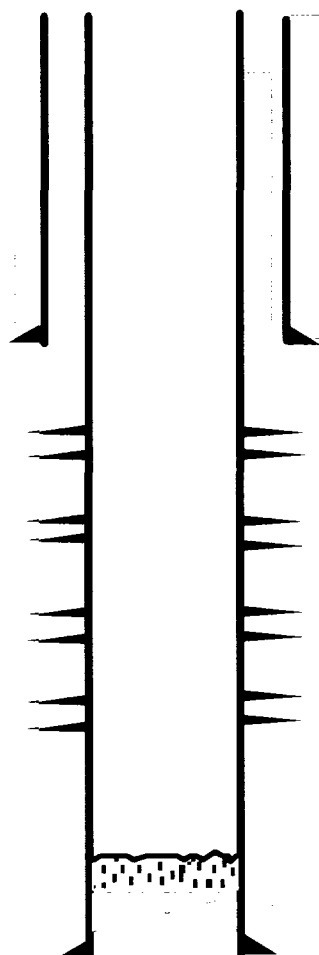
# DEVON ENERGY CORPORATION

## WELLBORE SCHEMATIC

### ATTACHMENT III

WELL NAME: West Red Lake Unit # 36		FIELD: Red Lake
LOCATION: 1630' FNL & 330' FEL Section 36-18S-27E	COUNTY: Eddy	STATE: NM
ELEVATION:	SPUD DATE:	COMP DATE:
API#:	PREPARED BY: D. Keys	DATE:

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0-1137'	8-5/8"	24#			
CASING:	0-2999'	5-1/2"	15.5#			
CASING:						
LINER:						
TUBING:	0- 2095'	2-7/8"				



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" set @ 1137', cmt'd w/300 sxs cmt, TOC surf.

Perforations:

1290-1298' Premier

1657-2104' San Andres

PBTD 2903'

Float Clr @ 2903'

5-1/2" 15.5# csg. set @ 2999', cmt'd w/430 sx scmt, TOC @ 90' by CBL.

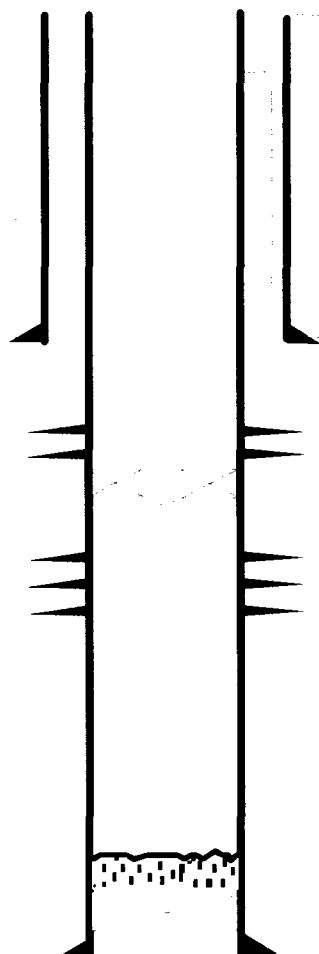
# DEVON ENERGY CORPORATION

## WELLBORE SCHEMATIC

### ATTACHMENT III

WELL NAME: West Red Lake Unit # 36	FIELD: Red Lake	
LOCATION: 1630' FNL & 330' FEL Section 36-18S-27E	COUNTY: Eddy	STATE: NM
ELEVATION:	SPUD DATE:	COMP DATE:
API#:	PREPARED BY: D. Keys	DATE:

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0-1137'	8-5/8"	24#			
CASING:	0-2999'	5-1/2"	15.5#			
CASING:						
LINER:						
TUBING:	0- 1600'	2-3/8"				



☐ CURRENT      ☒ PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" set @ 1137', cmt'd w/300 sxs cmt, TOC surf.

1290-1298' Premier will be squeezed  
2-3/8" tbg & AD tension pkr to be set +/- 1575'.

WATER INJECTION THROUGH 1657-2104' San Andres Perforations

PBTD 2903'  
Float Clr @ 2903'.  
5-1/2" 15.5# csg, set @ 2999', cmt'd w/430 sx scmt. TOC @ 90' by CBL.

## **ATTACHMENT III (tabular)**

### **Well Data**

- A.     (1)     West Red Lake #36  
              1630' FNL & 330' FEL "H"  
              Section 8-18S-27E  
              Eddy County, NM
- (2)     Please refer to the wellbore schematic labeled Attachment III -  
                  (schematic)  
                  **Surface: 8-5/8" csg @ 1137', cmt w/300 sxs cmt, TOC surf.**  
                  **Production: 5-1/2" 15.5# csg set @ 2999', cmt w/430 sxs cmt, TOC @**  
                  **90' (by CBL) .**  
                  (Also see schematic for any existing tbg and/or liner used)
- (3)     Tbg will be 2-3/8" fiberglass or internally coated, set @ 1575'.
- (4)     We will use a 5-1/2" x 2-3/8" plastic coated AD-1 tension packer to be set  
                  @ 1575' +/-.
- B.     (1)     The injection formations will be the San Andres in the Red Lake  
                  (Q-GB-SA) Field.
- (2)     The proposed interval will be approximately 1657-2104' . The  
                  injection interval will be through or existing perforations 1657-2104'
- (3)     This well was originally drilled and completed as an oil well. It produced  
                  from the Grayburg/San Andres Formations.
- (4)     Please refer to the wellbore schematic labeled Attachment III (schematic)  
                  for depths of other perforated intervals and detail on the sacks of cement.
- (5)     There are no known lower oil formations.

## **Attachment VII**

Devon Energy Corporation  
West Red Lake #36  
1630' FNL & 330' FEL "H"  
Section 8-18S-27E  
Eddy County, NM

### **Proposed Operation:**

1. Plans are to inject 800 barrels of produced water per day.
2. The Injection system will be a closed system.
3. The proposed injection pressure is 800 psig. Maximum pressure will be .77 psi/ft of depth to the top perforation (see attached memo).
4. The injection fluid will be Grayburg/San Andres produced water.
5. See attached water analysis.

## **Attachment VIII**

Devon Energy Corporation  
West Red Lake #36  
1630' FNL & 330' FEL "H"  
Section 8-18S-27E  
Eddy County, NM

### **Geology and Lithology**

Injection zones are dolomite porosity zones within the San Andres formations at an average depth of 1657-2104'. Specifically they are:

San Andres

Fresh Water Zones

Base of near surface aquifer 500'. No fresh water zones exist below the proposed injection interval.

## **Attachment XII**

Devon Energy Corporation  
West Red Lake #36  
1630' FNL & 330' FEL "H"  
Section 8-18S-27E  
Eddy County, NM

No evidence of fault communication between the shallow aquifers and the proposed injection zones has been encountered as the result of detailed studied of formations in West Red Lake Unit.

### **Proof of Notice**

Devon Energy Operating Corporation operates the West Red Lake Unit in Section 8 of 18S-27E, Eddy County, NM. Operators operating in area of review:

Breck  
Yates  
Amoco  
Arco  
Compton  
Simon

Each of these operators were provided a letter and a copy of our application by certified mail. Copies of the letters are enclosed, proof of notice will follow.

The Bureau of Land Management is the surface owner. They have been notified by letter with a copy of our application.

### **Proof of Publication**

Proof of Publication from the Carlsbad Current-Argus is enclosed.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other in-  
structions on  
reverse side)

## OPERATOR'S COPY

FOR APPROVED  
OMB NO. 1004-0137  
Expires: December 31, 1991

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>		2. NAME OF OPERATOR Devon Energy Corporation (Nevada)		3. ADDRESS AND TELEPHONE NO. 20 North Broadway Ste 1500, Oklahoma City, OK 73102 (405) 552-4511		4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1630' FNL & 330' FEL At top prod. interval reported below same At total depth same		5. LEASE DESIGNATION AND SERIAL NO. NM 7713		6. IF INDIAN, ALLOTTEE OR TRIBE NAME NA		7. UNIT AGREEMENT NAME West Red Lake Unit		8. FARM OR LEASE NAME, WELL NO. West Red Lake Unit #36		9. API WELL NO. 30-015-27474		10. FIELD AND POOL, OR WILDCAT West Red Lake		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Section H-8-T18S-R27E							
12. DATE SPUNDED 8-19-93		13. DATE T.D. REACHED 8-24-93		14. DATE COMPL. (Ready to prod.) 1-10-94		15. ELEVATIONS (OF, END, RT, OR, ETC.)* 3490.7'		16. COUNTY OR PARISH Eddy		17. STATE NM		18. SLEV. CASINGHEAD		19. TOTAL DEPTH, MD & TVD 3000'		20. PLUG. BACK T.D., MD & TVD 2903'		21. IF MULTIPLE COMPL., HOW MANY*		22. INTERVALS DRILLED BY Rotary Tools Cable Tools		23. WAS DIRECTIONAL SURVEY MADE yes-enclosed		24. TYPE ELECTRIC AND OTHER LOGS RUN CBL, DLL with Micro SFL, CNL		25. WAS WELL Cased no	
26. CARING RECORD (Report all strings set in well)																											
CASING SIZE/GRADE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		TOP OF CEMENT, CEMENTING RECORD		AMOUNT FULLED																	
8 5/8"		24 ppf		1137'		12 1/4"		circ to surface - 655 sx		none																	
5 1/2"		15.5 ppf		2999'		7 7/8"		circ to surface - 430 sx		none																	
27. LINER RECORD																											
SIZE		TOP (MD)		BOTTOM (MD)		BACKS CEMENT*		SCREEN (MD)		SIZE		DEPTH SET (MD)		PACKER SET (MD)													
										2 7/8"		2208'															
28. PREPARATION RECORD (Interval, size and number)																											
San Andres "D" 2068'-2104' (7 holes)													29. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.														
San Andres "C" 2024'-2036' (7 holes)													DEPTH INTERVAL (MD)														
San Andres "B" 1907'-1988' (10 holes)													2104' - 1841'														
San Andres "A" 1841'-1864' (6 holes)													AMOUNT AND KIND OF MATERIAL USED														
													10,500 gals 15% HCl acid														
													40,800 gals gelled 2% KCl														
													water + 114,000# 12/20 sand														
29. PRODUCTION																											
DATE FIRST PRODUCTION 1/10/94		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) pumping										WELL STATUS (Producing or shut-in) producing															
DATE OF TEST 1/23/94		HOURS TESTED 24		CHOKE SIZE		PROD. FOR TEST PERIOD		OIL—BSL.		GAS—MCF.		WATER—BSL.		GAS-OIL RATIO													
								68		70		70		1029:1													
FLOW, TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL—BSL.		GAS—MCF.		WATER—BSL.		OIL GRAVITY-API (CORR.)															
						68		70		70																	
30. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) sold effective 1/10/94																											
31. LIST OF ATTACHMENTS logs (3) and deviation survey																											
32. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records Debby O'Donnell																											
SIGNED <u>Debby O'Donnell</u> TITLE <u>Engineering Tech</u> DATE <u>1/26/94</u>																											

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

Title 18 U.S.C. Section 1001, makes 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.



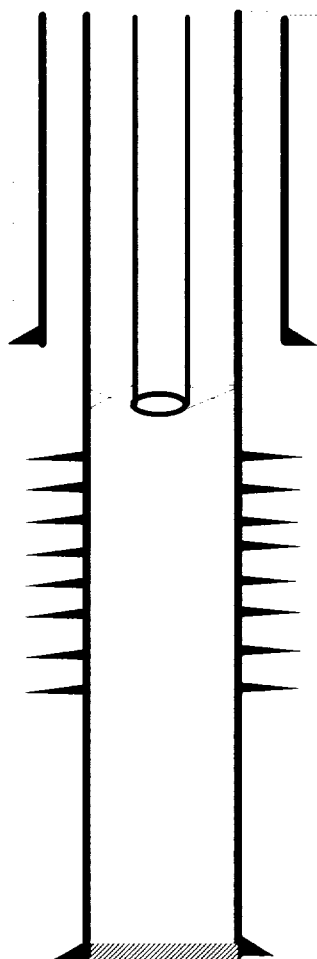
# DEVON ENERGY CORPORATION

## WELLBORE SCHEMATIC

### ATTACHMENT III

WELL NAME: West Red Lake Unit # 47		FIELD: Red Lake
LOCATION: 2310' FNL & 1510' FEL of Section 8-18S-27E	COUNTY: Eddy	STATE: NM
ELEVATION: GL 3475'	SPUD DATE: 9/24/95	COMP DATE: 10/13/95
API#: 30-015-28471	PREPARED BY: D. Keys	

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0-1099'	8-5/8"	24#	J-55		12-1/4"
CASING:	0-2249'	5-1/2"	15.5#	J-55		7-7/8"
CASING:						
LINER:						
TUBING:	0-1575'	2-3/8"				



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" set @ 1099', cmt'd w/550 sxs cmt, TOC surf.

2-3/8" fiberglass or IC tbgr @ +/- 1575' w/AD-1 tension pkr.

**WATER INJECTION THROUGH SAN ANDRES PERFORATIONS:**  
1656-2068' (25 holes)

PBTD @ 2199'.

5-1/2" 15.5# csg, set @ 2249'. cmt'd w/365 sxs cmt. TOC @ Surface

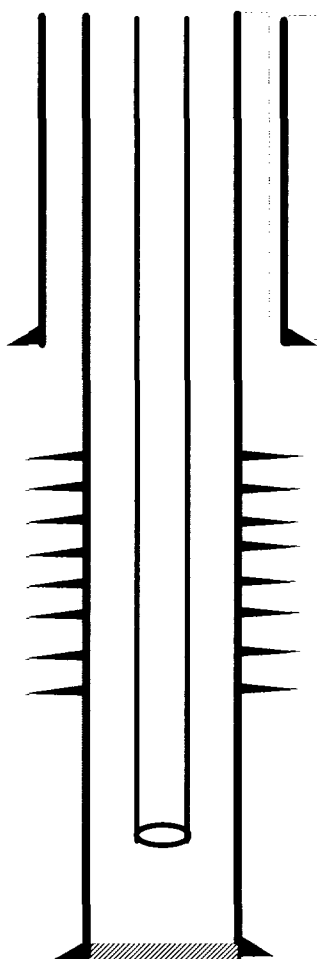
# DEVON ENERGY CORPORATION

## WELLBORE SCHEMATIC

### ATTACHMENT III

WELL NAME: West Red Lake Unit # 47		FIELD: Red Lake	
LOCATION: 2310' FNL & 1510' FEL of Section 8-18S-27E		COUNTY: Eddy	STATE: NM
ELEVATION: GL 3475'		SPUD DATE: 9/24/95	COMP DATE: 10/13/95
API#: 30-015-28471	PREPARED BY: D. Keys		

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0-1099'	8-5/8"	24#	J-55		12-1/4"
CASING:	0-2249'	5-1/2"	15.5#	J-55		7-7/8"
CASING:						
LINER:						
TUBING:	0-2099'	2-7/8"				



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" set @ 1099', cmt'd w/550 sxs cmt, TOC surf.

PERFORATIONS: 1656-2068' (25 holes)

2-7/8" Tbg @ 2099'

PBTD @ 2199'.

5-1/2" 15.5# csg, set @ 2249', cmt'd w/365 sxs cmt. TOC @ Surface

## **ATTACHMENT III (tabular)**

### **Well Data**

- A. (1) West Red Lake #47  
2310' FNL & 1510' FEL "G"  
Section 8-18S-27E  
Eddy County, NM
- (2) Please refer to the wellbore schematic labeled Attachment III - (schematic)  
**Surface: 8-5/8" 24#, J-55 csg @ 1099' w/550 sxs cmt, in 12-1/4" hole, TOC surf.**  
**Production: 5-1/2" J-55, 15.5# csg @ 2249' w/365 sxs cmt, in 7-7/8" hole, TOC surf.**  
(Also see schematic for any existing tbg and/or liner used)
- (3) Tbg will be 2-3/8" fiberglass or internally coated, set @ +/- 1575'.
- (4) We will use a 5-1/2" x 2-3/8" plastic coated AD-1 tension packer to be set @ 1575' +/-.
- B. (1) The injection formations will be the San Andres in the Red Lake (Q-GB-SA) Field.
- (2) The proposed interval will be approximately 1656-2068'. The injection interval will be through existing perforations 1656-2068'.
- (3) This well was originally drilled and completed as an oil well. It produced from the San Andres Formations.
- (4) Please refer to the wellbore schematic labeled Attachment III (schematic) for depths of other perforated intervals and detail on the sacks of cement.
- (5) There are no known lower oil formations.

## **Attachment VII**

Devon Energy Corporation  
West Red Lake #47  
2310' FNL & 1510' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

### **Proposed Operation:**

1. Plans are to inject 800 barrels of produced water per day.
2. The Injection system will be a closed system.
3. The proposed injection pressure is 800 psig. Maximum pressure will be .77 psi/ft of depth to the top perforation (see attached memo).
4. The injection fluid will be Grayburg/San Andres produced water.
5. See attached water analysis.

## **Attachment VIII**

Devon Energy Corporation  
West Red Lake #47  
2310' FNL & 1510' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

### **Geology and Lithology**

Injection zones are dolomite porosity zones within the San Andres formations at an average depth of 1656-2068'. Specifically they are:

San Andres

Fresh Water Zones

Base of near surface aquifer 500'. No fresh water zones exist below the proposed injection interval.

## **Attachment XII**

Devon Energy Corporation  
West Red Lake #47  
2310' FNL & 1510' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

No evidence of fault communication between the shallow aquifers and the proposed injection zones has been encountered as the result of detailed studied of formations in West Red Lake Unit.

### **Proof of Notice**

Devon Energy Operating Corporation operates the West Red Lake Unit in Section 8 of 18S-27E, Eddy County, NM. Operators operating in area of review:

Breck  
Yates  
Amoco  
Arco  
Compton  
Simon

Each of these operators were provided a letter and a copy of our application by certified mail. Copies of the letters are enclosed, proof of notice will follow.

The Bureau of Land Management is the surface owner. They have been notified by letter with a copy of our application.

### **Proof of Publication**

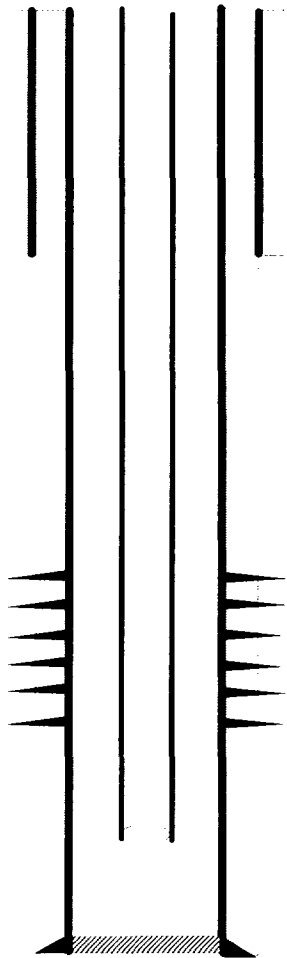
Proof of Publication from the Carlsbad Current-Argus is enclosed.

# DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

## ATTACHMENT III

WELL NAME: West Red Lake #63 FIELD: Red Lake  
 LOCATION: 1500' FNL & 850' FEL of Sec. 8-18S-27E COUNTY: Eddy STATE: NM  
 ELEVATION: GR 3474' SPUD DATE: 4/4/96 COMP DATE: 4/25/96  
 API#: 30-015-28733 PREPARED BY: D. Keys DATE: 12/10/96

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 992'	8-5/8"	24#	J-55		12-1/2"
CASING:	0' - 2250'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - 2100'	2-7/8"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 992' w/550 sxs cmt. TOC @ surface

**PERFORATIONS:** 1656-2065' (26 holes)

1656-1712' ALPHA, 1826-1837' "A",

1881-1948' "B", 1982-2013' "C", 2048-2065' "D"

Treated w/2500 gals 15% NEFE & Frac'd w/15,000 gals Prepad +  
 53,000 gals 30# XL & 74000# 100 mesh, 274,000# Brady &  
 30,000# 16/30 sand.

2-7/8" tbg @ 2100'.

PBTD @ 2206'.

5 1/2" CASING SET @ 2250' W/400 SXS CMT. TOC SURF.

TD @ 2250'

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

FORM APPROVED

(See other in

OPERATOR'S COPY

MODEL NUMBER AND SERIAL NO.  
NM-NM-7712

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

a. TYPE OF WELL OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐  
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESV. ☐ Other ☐  
DEC 1 1995

2. NAME OF OPERATOR

DEVON ENERGY CORPORATION (NEVADA)

3. ADDRESS AND TELEPHONE NO.

20 N. BROADWAY, SUITE 1500, OKC, OK 73102-8260 (405) 235-3611

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 2310' FNL &amp; 1510' FEL

At top prod. interval reported below (SAME)

At total depth (SAME)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
N/A

7. UNIT AGREEMENT NAME

West Red Lake 8910089700

8. FARM OR LEASE NAME, WELL NO.

West Red Lake Unit #47

9. API WELL NO.

30-015-28471

10. FIELD AND POOL, OR WILDCAT

Red Lake (Q-GB-SA)

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 8-T18S-R27E

Unit G

14. PERMIT NO.

DATE ISSUED

4/13/95

12. COUNTY OR PARISH

Eddy

13. STATE

NM

15. DATE SPUDDED

9/24/95

16. DATE T.D. REACHED

9/30/95

17. DATE COMPL. (Ready to prod.)

10/13/95

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

GL 3475'

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD

2250'

21. PLUG, BACK T.D., MD &amp; TVD

2199'

22. IF MULTIPLE COMPL., HOW MANY\*

N/A

23. INTERVALS

DRILLED BY

ROTARY TOOLS

X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

1656-2068' San Andres

25. WAS DIRECTIONAL SURVEY

MADE

NO

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Laterolog/MSFL, Litho-Density/Compensated Neutron and Cement Bond logs

27. WAS WELL CORED

NO

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8 5/8" J-55	24#	1099'	12 1/4"	350 sx Lite + 200 sx Class C	
				TOC surface	
5 1/2" J-55	15.5#	2249'	7 7/8"	140 sx Lite + 225 sx Class C	
				TOC surface	

## 29. LINER RECORD

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

## 30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	2099'	

## 31. PERFORATION RECORD (Interval, size and number)

1656-1806' w/4 holes (.44" EHD) San Andres Alpha

1824-1843' w/4 holes (.44" EHD), San Andres "A"

1887-1976' w/5 holes (.44" EHD) San Andres "B"

1987-2028' w/8 holes (.44" EHD), San Andres "C"

2038-2068' w/4 holes (.44" EHD) San Andres "D"

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
1656-2068'	2500 gals 15% NeFe acid + 50 BS
	61,000 gals 30# X-Link gel + 7000# 100-Mesh sd +
	227,000# 16/30 Brady sd + 24,000# 16/30 RC sd

## 33. PRODUCTION

DATE FIRST PRODUCTION 10/15/95	PRODUCTIONS METHOD (Flowing, gas lift, pumping—size and type of pump) 2 1/2" x 2" x 12' pump	WELL STATUS (Producing or shut-in) Prdg
DATE OF TEST 10/20/95	HOURS TESTED 24 hrs	CHOKE SIZE
	PROD'N FOR TEST PERIOD	OIL-BBL. 41
		GAS-MCF. 82
		WATER-BBL. 83
		GAS-OIL RATIO 2000/1
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE
		OIL-BBL. 41
		GAS-MCF. 82
		WATER-BBL. 83
		OIL GRAVITY-API (CORR.) 39

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

sold to GPM Gas Svcs

TEST WITNESSED BY

Danny Hokett

35. LIST OF ATTACHMENTS

open hole logs, deviation survey report and bond log

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

SIGNED

E. L. Buttross, Jr.

E. L. BUTTROSS, JR.  
TITLE DISTRICT ENGINEER

DATE November 29, 1995

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

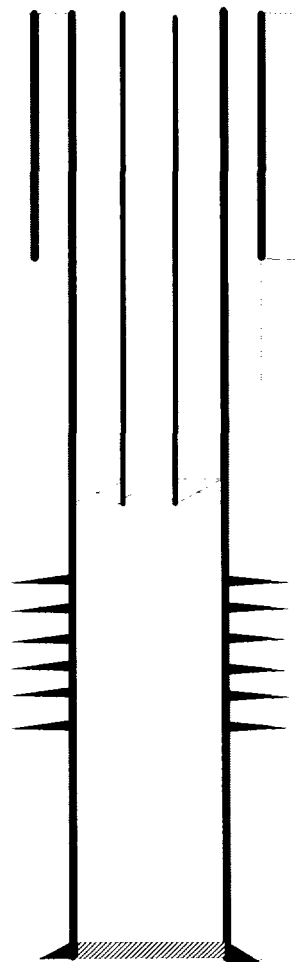


# DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

## ATTACHMENT III

WELL NAME: West Red Lake #63 FIELD: Red Lake  
 LOCATION: 1500' FNL & 850' FEL of Sec. 8-18S-27E COUNTY: Eddy STATE: NM  
 ELEVATION: GR 3474' SPUD DATE: 4/4/96 COMP DATE: 4/25/96  
 API#: 30-015-28733 PREPARED BY: D. Keys DATE: 12/10/96

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 992'	8-5/8"	24#	J-55		12-1/2"
CASING:	0' - 2250'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - +/- 1575'	2-3/8"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 992' w/550 sxs cmt. TOC @ surface

2-3/8" fiberglass or IC tbg set @ +/- 1575' w/PC AD-1 tension pkr.

PERFORATIONS: 1656-2065' (26 holes)  
 1656-1712' ALPHA, 1826-1837' "A",  
 1881-1948' "B", 1982-2013' "C", 2048-2065' "D"

PBTD @ 2206'.

5 1/2" CASING SET @ 2250' W/400 SXS CMT . TOC SURF.  
 TD @ 2250'

## **ATTACHMENT III (tabular)**

### **Well Data**

- A. (1) West Red Lake #63  
1500' FNL & 850' FEL "F"  
Section 8-18S-27E  
Eddy County, NM
- (2) Please refer to the wellbore schematic labeled Attachment III - (schematic)  
**Surface: 8-5/8" 24# J-55 set @ 992' in 12-1/4" hole w/550 sxs cmt, TOC surf.**  
**Production: 5-1/2" 15.5# J-55 Set @ 2250' in 7-7/8" hole with 400 sxs cmt, TOC surf.**  
(Also see schematic for any existing tbg and/or liner used)
- (3) Tbg will be 2-3/8" fiberglass or internally coated, set @ 1575' +/-.
- (4) We will use a 5-1/2" x 2-3/8" plastic coated AD-1 tension packer to be set @ 1575' +/-.
- B. (1) The injection formations will be the San Andres in the Red Lake (Q-GB-SA) Field.
- (2) The proposed interval will be approximately 1656-2065' . The injection interval will be through existing perforations 1656-2065"
- (3) This well was originally drilled and completed as an oil well. It produced from the Grayburg/San Andres Formations.
- (4) Please refer to the wellbore schematic labeled Attachment III (schematic) for depths of other perforated intervals and detail on the sacks of cement.
- (5) There are no known lower oil formations.

## **Attachment VII**

Devon Energy Corporation  
West Red Lake #63  
1500' FNL & 850' FEL "F"  
Section 8-18S-27E  
Eddy County, NM

### **Proposed Operation:**

1. Plans are to inject 800 barrels of produced water per day.
2. The Injection system will be a closed system.
3. The proposed injection pressure is 800 psig. Maximum pressure will be .77 psi/ft of depth to the top perforation (see attached memo).
4. The injection fluid will be Grayburg/San Andres produced water.
5. See attached water analysis.

## **Attachment VIII**

Devon Energy Corporation  
West Red Lake #63  
1500' FNL & 850' FEL "F"  
Section 8-18S-27E  
Eddy County, NM

### **Geology and Lithology**

Injection zones are dolomite porosity zones within the San Andres formations at an average depth of 1656-2065'. Specifically they are:

San Andres

Fresh Water Zones

Base of near surface aquifer 500'. No fresh water zones exist below the proposed injection interval.

## **Attachment XII**

Devon Energy Corporation  
West Red Lake #63  
1500' FNL & 850' FEL "F"  
Section 8-18S-27E  
Eddy County, NM

No evidence of fault communication between the shallow aquifers and the proposed injection zones has been encountered as the result of detailed studied of formations in West Red Lake Unit.

### **Proof of Notice**

Devon Energy Operating Corporation operates the West Red Lake Unit in Section 8 of 18S-27E, Eddy County, NM. Operators operating in area of review:

Breck  
Yates  
Amoco  
Arco  
Compton  
Simon

Each of these operators were provided a letter and a copy of our application by certified mail. Copies of the letters are enclosed, proof of notice will follow.

The Bureau of Land Management is the surface owner. They have been notified by letter with a copy of our application.

### **Proof of Publication**

Proof of Publication from the Carlsbad Current-Argus is enclosed.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

FORM APPROVED

(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG OPERATOR'S COPY

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐  
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ Other ☐

2. NAME OF OPERATOR  
DEVON ENERGY OPERATING CORPORATION

3. ADDRESS AND TELEPHONE NO.  
20 N. BROADWAY, SUITE 1500, OKC, OK 73102-8260 (405) 552-4530

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1500' FNL & 850' FEL

At top prod. interval reported below (SAME)

At total depth (SAME)

5. LEASE DESIGNATION AND SERIAL NO.  
NM-7713  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
N/A  
7. UNIT AGREEMENT NAME  
West Red Lake Unit 8910089700  
8. FARM OR LEASE NAME, WELL NO.  
West Red Lake Unit #63  
9. API WELL NO.  
30-015-28733  
10. FIELD AND POOL, OR WILDCAT  
Red Lake (Q, GB, SA)  
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec. 8-18S-27E

14. PERMIT NO.		DATE ISSUED 11/29/95		12. COUNTY OR PARISH Eddy	13. STATE NM
15. DATE SPUDDED 4/4/96	16. DATE T.D. REACHED 4/8/96	17. DATE COMPL. (Ready to prod.) 4/25/96		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GR 3474'	
20. TOTAL DEPTH, MD & TVD 2250'		21. PLUG, BACK T.D., MD & TVD 2206'		22. IF MULTIPLE COMPL., HOW MANY* N/A	23. INTERVALS DRILLED BY →
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 1656 - 2065' - San Andres					25. WAS DIRECTIONAL SURVEY MADE no
26. TYPE ELECTRIC AND OTHER LOGS RUN CBL					27. WAS WELL CORED no

28. CASING RECORD (Report all strings set in well)					
CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8 5/8" J-55	24	992'	12 1/4"	surf/300 sx Poz C + 250sx CI "C"	
5 1/2" J-55	15.5	2250'	7 7/8"	surf/150 sx Poz C + 250 sx CI "C"	

29. LINER RECORD				30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SIZE	DEPTH SET (MD)	PACKER SET (MD)
				2 7/8"	2100'	

31. PERFORATION RECORD (Interval, size and number) 1656 - 2065' (.40" EHD) w/26 holes		32. ACID SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
1656-2065'		2500 gals 15% NEFE acid + 52 BS	
1656 - 2065'		15,000 gals Prepad + 53,000 gals 30w X-Link + 7000w 100 mesh sd + 274,000 20/40 Brady sd + 30,000 16/30 RC M	

33.* PRODUCTION							
DATE FIRST PRODUCTION 4/28/96		PRODUCTIONS METHOD I (Flowing, gas lift, pumping—size and type of pump) pump					WELL STATUS (Producing or shut-in) producing
DATE OF TEST 5/2/96	HOURS TESTED 24	CHOKE SIZE N/A	PROD'N FOR TEST PERIOD →	OIL-BBL. 65	GAS-MCF. 189	WATER-BBL. 145	GAS-OIL RATIO 2907/1
FLOW. TUBING PRESS. N/A	CASING PRESSURE N/A	CALCULATED 24-HOUR RATE →	OIL-BBL. 65	GAS-MCF. 189	WATER-BBL. 145	OIL GRAVITY-API (CORR.) 39	

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

35. LIST OF ATTACHMENTS  
logs and deviation survey reports

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

SIGNED E. L. Buttross, Jr.

E.L. BUTTROSS, JR.  
TITLE DISTRICT ENGINEER

DATE August 8, 1996

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

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):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Premier Sand	1259'	1305'	Sandstone Dolomite	Bowers	493'	+2992
San Andres	1610'	2085'		Queen	685'	+2800
				Grayburg	1034'	+2451
				Premier	1259'	+2226
				San Andres	1305'	+2180
		DEPTH	ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.. (continued from the front)			
			N/A			

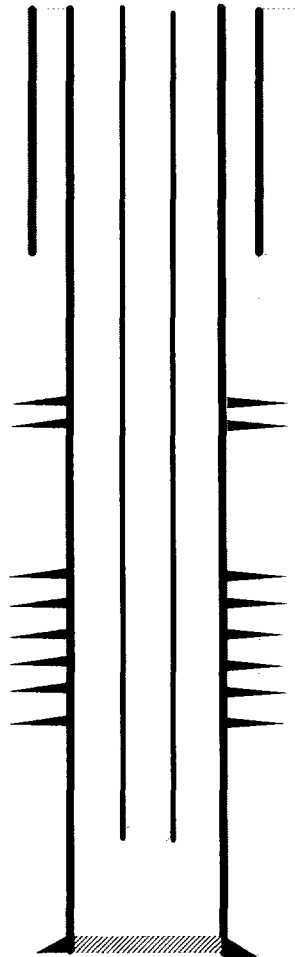
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# DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

## ATTACHMENT III

WELL NAME: West Red Lake #71	FIELD: Red Lake	STATE: NM
LOCATION: 710' FNL & 1650' FEL of Sec. 8-18S-27E	COUNTY: Eddy	
ELEVATION: KB 3432'	SPUD DATE: 5/3/96	COMP DATE: 7/18/96
API#: 30-015-28940	PREPARED BY: D. Keys	DATE: 12/10/96

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 975'	8-5/8"	24#	J-55		12-1/2"
CASING:	0' - 2199'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - 2040'	2-7/8"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 975' w/600 sxs cmt. TOC @ surface

### PERFORATIONS:

1194-99' PREMIER, 1268-1378' UPR SA, 1516-74' ALPHA,  
1742-54' "A", 1790-1857' "B", 1902-1928' "C", 1950-1996' "D"

2-7/8" tbg @ 2040'

PBTD @ 2154'.

5 1/2" CASING SET @ 2199' W/475 SXS CMT . TOC surf.

TD @ 2200'

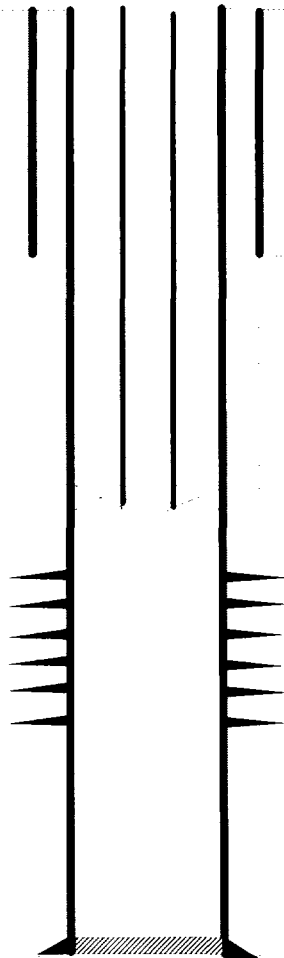


# DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

## ATTACHMENT III

WELL NAME: West Red Lake #71		FIELD: Red Lake	
LOCATION: 710' FNL & 1650' FEL of Sec. 8-18S-27E		COUNTY: Eddy	STATE: NM
ELEVATION: KB 3432'		SPUD DATE: 5/3/96	COMP DATE: 7/18/96
API#: 30-015-28940	PREPARED BY: D. Keys	DATE: 12/10/96	

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 975'	8-5/8"	24#	J-55		12-1/2"
CASING:	0' - 2199'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - +/- 1200'	2-3/8"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 975' w/600 sxs cmt. TOC @ surface

PERFORATIONS:  
1194-96' (2) WILL SQUEEZE

2-3/8" fiberglass or IC tbg @ +/- 1200' set w/AD-1 tension packer

WATER INJECTION THROUGH PERFORATIONS:  
1268-1378' (5); 1516-74' (4); 1742-54' (6);  
1790-1857'(6); 1902-1928' (5) and 1950-1996' (7)

2-7/8" tbg @ 2040'

PBTD @ 2154'.  
5 1/2" CASING SET @ 2199' W/475 SXS CMT . TOC surf.  
TD @ 2200'

## **ATTACHMENT III (tabular)**

### **Well Data**

- A. (1) West Red Lake #71  
710' FNL & 1650' FEL "B"  
Section 8-18S-27E  
Eddy County, NM
- (2) Please refer to the wellbore schematic labeled Attachment III -  
(schematic)  
**Surface: 8-5/8" 24# J-55 @ 975' in 12-/14" hole, w/600 sxs cmt, TOC surf.**  
**Production: 5-1/2" 15.5# J-55 @ 2199' in 7-7/8" hole w/475 sxs cmt, TOC surf.**  
(Also see schematic for any existing tbg and/or liner used)
- (3) Tbg will be 2-3/8" fiberglass or internally coated, set @ 1200' +/-.
- (4) We will use a 5-1/2" x 2-3/8" plastic coated AD-1 tension packer to be set @ 1200' +/-.
- B. (1) The injection formations will be the San Andres in the Red Lake (Q-GB-SA) Field.
- (2) The proposed interval will be approximately 1268-1996' . The injection interval will be through existing perforations 1268-1996'
- (3) This well was originally drilled and completed as an oil well. It produced from the Grayburg/San Andres Formations.
- (4) Please refer to the wellbore schematic labeled Attachment III (schematic) for depths of other perforated intervals and detail on the sacks of cement.
- (5) There are no known lower oil formations.

## **Attachment VII**

Devon Energy Corporation  
West Red Lake #71  
710' FNL & 1650' FEL "B"  
Section 8-18S-27E  
Eddy County, NM

### **Proposed Operation:**

1. Plans are to inject 800 barrels of produced water per day.
2. The Injection system will be a closed system.
3. The proposed injection pressure is 800 psig. Maximum pressure will be .77 psi/ft of depth to the top perforation (see attached memo).
4. The injection fluid will be Grayburg/San Andres produced water.
5. See attached water analysis.

## **Attachment VIII**

Devon Energy Corporation  
West Red Lake #71  
710' FNL & 1650' FEL "B"  
Section 8-18S-27E  
Eddy County, NM

### **Geology and Lithology**

Injection zones are sand lenses within the San Andres formations at an average depth of 1268-1996'. Specifically they are:

San Andres

Fresh Water Zones

Base of near surface aquifer 500'. No fresh water zones exist below the proposed injection interval.

## **Attachment XII**

Devon Energy Corporation  
West Red Lake #71  
710' FNL & 1650' FEL "B"  
Section 8-18S-27E  
Eddy County, NM

No evidence of fault communication between the shallow aquifers and the proposed injection zones has been encountered as the result of detailed studied of formations in West Red Lake Unit.

### **Proof of Notice**

Devon Energy Operating Corporation operates the West Red Lake Unit in Section 8 of 18S-27E, Eddy County, NM. Operators operating in area of review:

Breck  
Yates  
Amoco  
Arco  
Compton  
Simon

Each of these operators were provided a letter and a copy of our application by certified mail. Copies of the letters are enclosed, proof of notice will follow.

The Bureau of Land Management is the surface owner. They have been notified by letter with a copy of our application.

### **Proof of Publication**

Proof of Publication from the Carlsbad Current-Argus is enclosed.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OPERATOR'S COPY

FORM APPROVED

(See instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐  
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESER. ☐ Other ☐

2. NAME OF OPERATOR

DEVON ENERGY CORPORATION (NEVADA)

3. ADDRESS AND TELEPHONE NO.

20 N. BROADWAY, SUITE 1500, OKC, OK 73102-8260 (405) 235-3611

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 710' FNL & 1650' FEL

At top prod. interval reported below (SAME)

At total depth (SAME)

5. LEASE DESIGNATION AND SERIAL NO.

NM-7713

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NA

7. UNIT AGREEMENT NAME

West Red Lake 8910089700

8. FARM OR LEASE NAME, WELL NO.

West Red Lake #71

9. API WELL NO.

30-015-28940

10. FIELD AND POOL, OR WILDCAT

Red Lake (Q-GB-SA)

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
"B"-8-T18S-R27E

14. PERMIT NO.

DATE ISSUED

4/16/96

12. COUNTY OR PARISH

Eddy County,

13. STATE

New Mexico

15. DATE SPUNDED  
5/3/96

16. DATE T.D. REACHED  
6/3/96

17. DATE COMPL. (Ready to prod.)  
7/18/96

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*  
KB 3432'; GL 3422'; DF 3431'

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD  
2200'

21. PLUG, BACK T.D., MD & TVD  
2154

22. IF MULTIPLE COMPL., HOW MANY\*  
NA

23. INTERVALS  
DRILLED BY

ROTARY TOOLS  
I

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
Grayburg/San Andres 1194-1996'

25. WAS DIRECTIONAL SURVEY  
MADE  
No

26. TYPE ELECTRIC AND OTHER LOGS RUN  
DL/MSFL/GR; LD/CN/GR; CBL

27. WAS WELL CORED  
No

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8" J-55	24#	975'	12-1/4"	Surf; 300 sxs "C" & 300 sxs 35/65	None
5-1/2" J-55	15.5#	2199'	7-7/8"	Surf; 325 sxs "C" & 150 sxs 35/65	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	2040'	

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)

1194-96' PREMIER (2 - .40" EHD)  
1268-1378' UPR SA (5 - .40" EHD)  
1516-74' ALPHA (4 - .40" EHD)  
1742-54' "A" (6 - .40" EHD)  
1790-1857' "B", (6 - .40" EHD)  
1902-1928' "C" (5 - .40" EHD)  
1950-1996' "D" (7 - .40" EHD)

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
1742-1996'	2500 gals of 15% NeFe acid
	CONT ON REVERSE

33.\* PRODUCTION

DATE FIRST PRODUCTION 7/19/96		PRODUCTIONS METHOD 1(Flowing, gas lift, pumping—size and type of pump) Pumping: 2-1/2" x 1-1/2" x 12' RWTC pump					WELL STATUS (Producing or shut-in) prod	
DATE OF TEST 7/24/96	HOURS TESTED 24	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL. 134	GAS-MCF. 201	WATER-BBL. 43	GAS-OIL RATIO 1500/1	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL. 134	GAS-MCF. 201	WATER-BBL. 43	OIL GRAVITY-API (CORR.) 38*		

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

TEST WITNESSED BY  
Danny Hokeff

35. LIST OF ATTACHMENTS  
Logs, Deviation Surveys

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

SIGNED

*Diana Keys*

DIANA KEYS  
TITLE ENGINEERING TECHNICIAN

DATE September 12, 1996

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

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):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
Premier Sand San Andres	1192' 1228'	1228' 2006'	Sandstone Dolomite	Queen Grayburg Premier San Andres	588' 967' 1192' 1228'	+2844 +2465 +2240 +2204
		DEPTH	ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.. (continued from the front)			
		1742-1996'	15,000 gals PrePad + 2 drum Pro-Kem scale inhibitor + 53,000 gals 30# X-link gel water + 7000# 100 mesh sand + 284,000# 20/40 brady sand and 16/30 sand			
		1194-1574'	1500 gals of 15% NeFe acid			
		1194-1574'	1,000 gals gel PrePad + 2 drum Pro-Kem scale inhibitor + 12,000 gals 30# X-link gelled 2% KCL water + 40,000# 20/40 Brady sand & 8,000# 16/30 CRC sand			

11/11/00

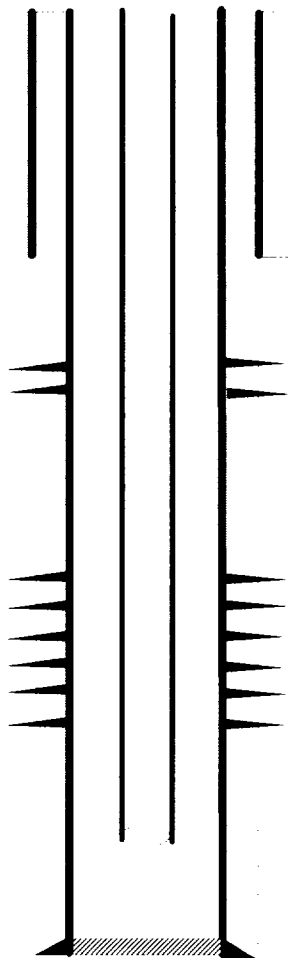
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# DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

## ATTACHMENT III

WELL NAME: West Red Lake #74 FIELD: Red Lake  
 LOCATION: 1930' FNL & 2600' FEL "G" of Sec. 8-18S-27E COUNTY: Eddy STATE: NM  
 ELEVATION: KB 3428' SPUD DATE: 6/16/96 COMP DATE: 7/6/96  
 API#: 30-015-28943 PREPARED BY: D. Keys DATE: 12/10/96

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1000'	8-5/8"	24#	J-55		12-1/2"
CASING:	0' - 2250'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - 2039'	2-7/8"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 1000' w/500 sxs cmt. TOC @ surface

### PERFORATIONS:

1196-1225' PREMIER, 1517-1597' ALPHA, 1759-1767' "A"

1811' "B", 1922-1928' "C", 1980-1996' "D"

Treated w/2000 gals 15% NEFE & Frac'd w/15,000 gals Prepad +  
 32,000 gals 30# XL & 4000# 100 mesh, 116,000# Brady &  
 24,000# 16/30 sand.

2-7/8" Tbg @ 2039'.

PBTD @ 2205'.

5 1/2" CASING SET @ 2250' W/425 SXS CMT TOC SURF.

TD @ 2250'

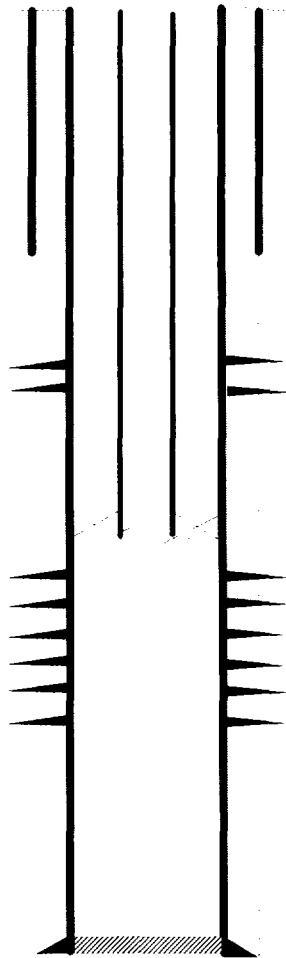


# DEVON ENERGY CORPORATION - WELLBORE SCHEMATIC

## ATTACHMENT III

WELL NAME: West Red Lake #74		FIELD: Red Lake	
LOCATION: 1930' FNL & 2600' FEL "G" of Sec. 8-18S-27E	COUNTY: Eddy	STATE: NM	
ELEVATION: KB 3428'	SPUD DATE: 6/16/96	COMP DATE: 7/6/96	
API#: 30-015-28943	PREPARED BY: D. Keys	DATE: 12/10/96	

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1000'	8-5/8"	24#	J-55		12-1/2"
CASING:	0' - 2250'	5 1/2"	15.5#	J-55		7-7/8"
CASING:						
TUBING:	0' - +/- 1450'	2-3/8"				
TUBING:						



CURRENT



PROPOSED

OPERATOR: DEVON ENERGY CORPORATION

8-5/8" Casing, Set @ 1000' w/500 sxs cmt. TOC @ surface

(Grayburg Perfs 1196-1225' will be squeezed)

2-3/8" tbg set w/AD tension pkr @ +/- 1450'.

### WATER INJECTION THROUGH PERFORATIONS:

1517-1597' ALPHA, 1759-1767' "A"

1811' "B", 1922-1928' "C", 1980-1996' "D"

PBTD @ 2205'.

5 1/2" CASING SET @ 2250' W/425 SXS CMT . TOC SURF.

TD @ 2250'

## **ATTACHMENT III (tabular)**

### **Well Data**

- A. (1) West Red Lake #74  
1930' FNL & 2600' FEL "G"  
Section 8-18S-27E  
Eddy County, NM
- (2) Please refer to the wellbore schematic labeled Attachment III - (schematic)  
**Surface: 8-5/8" 24# J-55 set @ 1000' in 12-1/4" hole w/500 sxs cmt, TOC surf.**  
**Production: 5-1/2" 15.5# J-55 set @ 2250' in 7-7/8" hole w/425 sxs cmt, TOC Surf.**  
(Also see schematic for any existing tbg and/or liner used)
- (3) Tbg will be 2-3/8" fiberglass or internally coated, set @ 1450' +/-.
- (4) We will use a 5-1/2" x 2-3/8" plastic coated AD-1 tension packer to be set @ 1500' +/-.
- B. (1) The injection formations will be the San Andres in the Red Lake (Q-GB-SA) Field.
- (2) The proposed interval will be approximately 1517-1996' . The injection interval will be through existing perforations 1517-1996''
- (3) This well was originally drilled and completed as an oil well. It produced from the Grayburg/San Andres Formations.
- (4) Please refer to the wellbore schematic labeled Attachment III (schematic) for depths of other perforated intervals and detail on the sacks of cement.
- (5) There are no known lower oil formations.

## **Attachment VII**

Devon Energy Corporation  
West Red Lake #74  
1930' FNL & 2600' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

### **Proposed Operation:**

1. Plans are to inject 800 barrels of produced water per day.
2. The Injection system will be a closed system.
3. The proposed injection pressure is 800 psig. Maximum pressure will be .77 psi/ft of depth to the top perforation (see attached memo).
4. The injection fluid will be Grayburg/San Andres produced water.
5. See attached water analysis.

## **Attachment VIII**

Devon Energy Corporation  
West Red Lake #74  
1930' FNL & 2600' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

### **Geology and Lithology**

Injection zones are dolomite porosity zones within the San Andres formations at an average depth of 1517-1996'. Specifically they are:

San Andres

Fresh Water Zones

Base of near surface aquifer 500'. No fresh water zones exist below the proposed injection interval.

## **Attachment XII**

Devon Energy Corporation  
West Red Lake #74  
1930' FNL & 2600' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

No evidence of fault communication between the shallow aquifers and the proposed injection zones has been encountered as the result of detailed studied of formations in West Red Lake Unit.

### **Proof of Notice**

Devon Energy Operating Corporation operates the West Red Lake Unit in Section 8 of 18S-27E, Eddy County, NM. Operators operating in area of review:

Breck  
Yates  
Amoco  
Arco  
Compton  
Simon

Each of these operators were provided a letter and a copy of our application by certified mail. Copies of the letters are enclosed, proof of notice will follow.

The Bureau of Land Management is the surface owner. They have been notified by letter with a copy of our application.

### **Proof of Publication**

Proof of Publication from the Carlsbad Current-Argus is enclosed.

(October 1990)

UNITED STATES

SUBMIT IN DUPLICATE\*

FORM APPROVED

# DEPARTMENT OF THE INTERIOR

## BUREAU OF LAND MANAGEMENT

(See other instructions on reverse side)

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***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 \_\_\_\_\_

2. NAME OF OPERATOR

DEVON ENERGY CORPORATION (NEVADA)

3. ADDRESS AND TELEPHONE NO.

20 N. BROADWAY, SUITE 1500, OKC, OK 73102-8260 (405) 235-3611

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1930' FNL &amp; 2600' FEL Unit Letter "G"

At top prod. interval reported below (SAME)

At total depth (SAME)

14. PERMIT NO.

DATE ISSUED

4/15/96

12. COUNTY OR PARISH

Eddy County,

13. STATE

New Mexico

15. DATE SPUDDED

6/16/96

16. DATE T.D. REACHED

6/20/96

17. DATE COMPL. (Ready to prod.)

7/6/96

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

KB 3428'; DF 3427'; GL 3419'

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD

2250'

21. PLUG, BACK T.D., MD &amp; TVD

2205'

22. IF MULTIPLE COMPL., HOW MANY\*

NA

23. INTERVALS

DRILLED BY

ROTARY TOOLS

X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

Grayburg/San Andres 1196-1996'

25. WAS DIRECTIONAL SURVEY

MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

DL/MSFL/GR; LD/CN/GR; CBL

27. WAS WELL CORED

No

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8" J-55	24#	1000'	12-1/4"	Surf; 300 sxs "C" & 200 sxs lite	None
5-1/2" J-55	15.5#	2250'	7-7/8"	Surf; 150 sxs lite & 275 sxs "C"	None

**29. LINER RECORD**

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	2039'	

**31. PERFORATION RECORD (Interval, size and number)**

1196-1225' PREMIER, (3 .40" EHD holes)

1517-1597' ALPHA, (5 .40" EHD holes)

1759-1767' "A", (3 .40" EHD holes)

1811' "B", (1 .40" EHD holes)

1922-1928' "C", (3 .40" EHD holes)

1980-1996' "D", (2 .40" EHD holes)

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
1196-1996'	2000 gals of 15% NeFe acid
1196-1996'	15,000 gals PrePad + 2 drum Pro-Kem scale inhibitor +
	32,000 gals 30# X-link gel water + 4000# 100 mesh
	sd + 116,000# 20/40 brady sd and 24,000# 16/30 sd

**33.\* PRODUCTION**

DATE FIRST PRODUCTION	PRODUCTIONS METHOD I (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
7/8/96	Pumping: 2-1/2" x 2" x 12' RWTC pump	prod

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL-BBL.	GAS-MCF.	WATER-BBL.	GAS-OIL RATIO
7/10/96	24			32	64	255	2000/1

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL-BBL.	GAS-MCF.	WATER-BBL.	OIL GRAVITY-API (CORR.)
			32	64	255	38°

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

Sold

TEST WITNESSED BY

Danny Hokett

35. LIST OF ATTACHMENTS

Logs, Deviation Surveys

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

SIGNED \_\_\_\_\_

DIANA KEYS

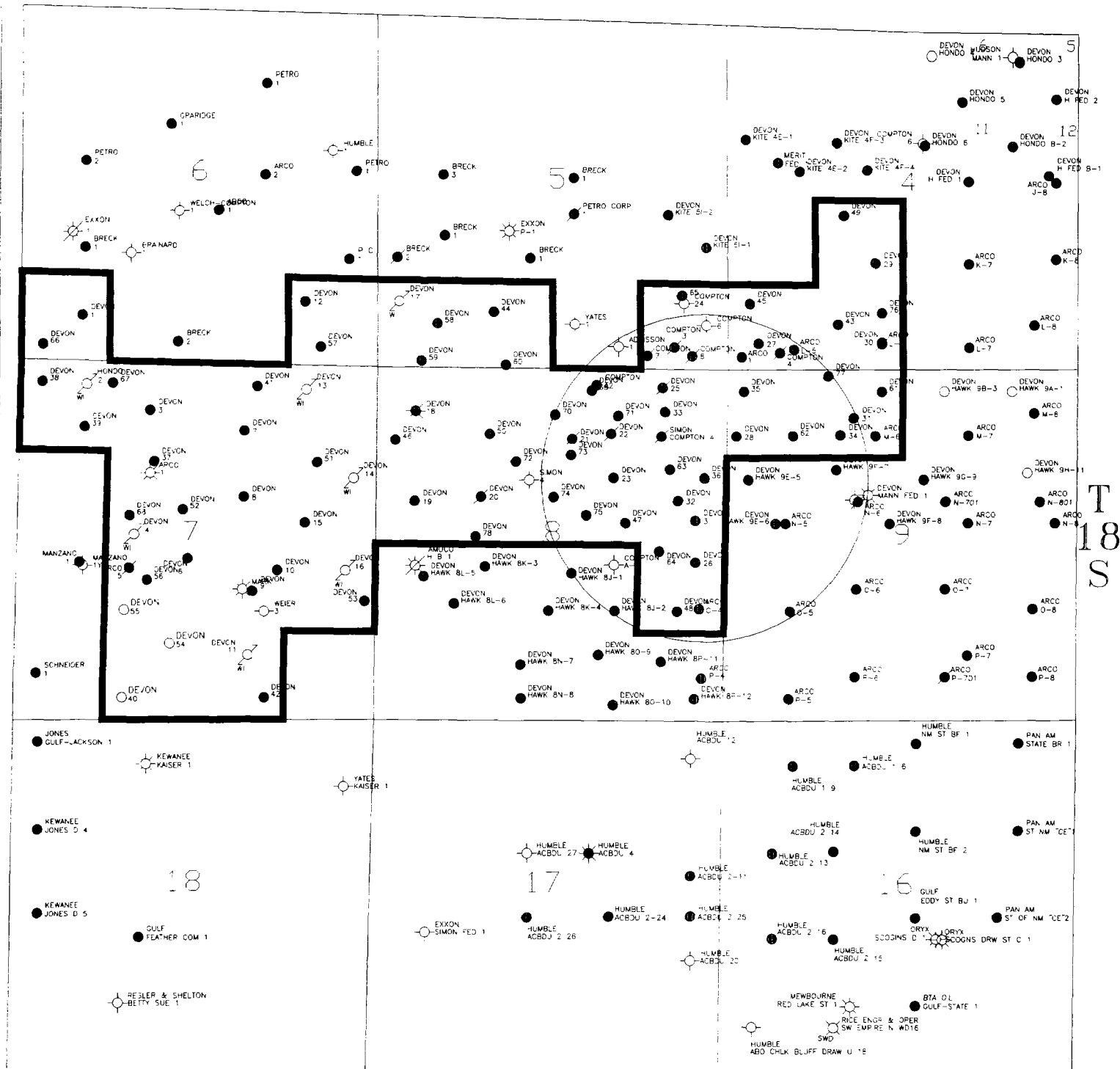
TITLE ENGINEERING TECHNICIAN

DATE September 24, 1996

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

7. 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):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Premier Sand  San Andres	1194'	1228'	Sandstone  Dolomite	Bowers	408'	+3020
	1228'	2038'		Queen	593'	+2835
				Grayburg	962'	+2466
				Premier	1194'	+2234
				San Andres	1228'	+2200
		DEPTH	ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.. (continued from the front)			

R 27 E



Attachment II

devon  
ENERGY CORPORATION

WEST RED LAKE UNIT  
EDDY COUNTY, NEW MEXICO

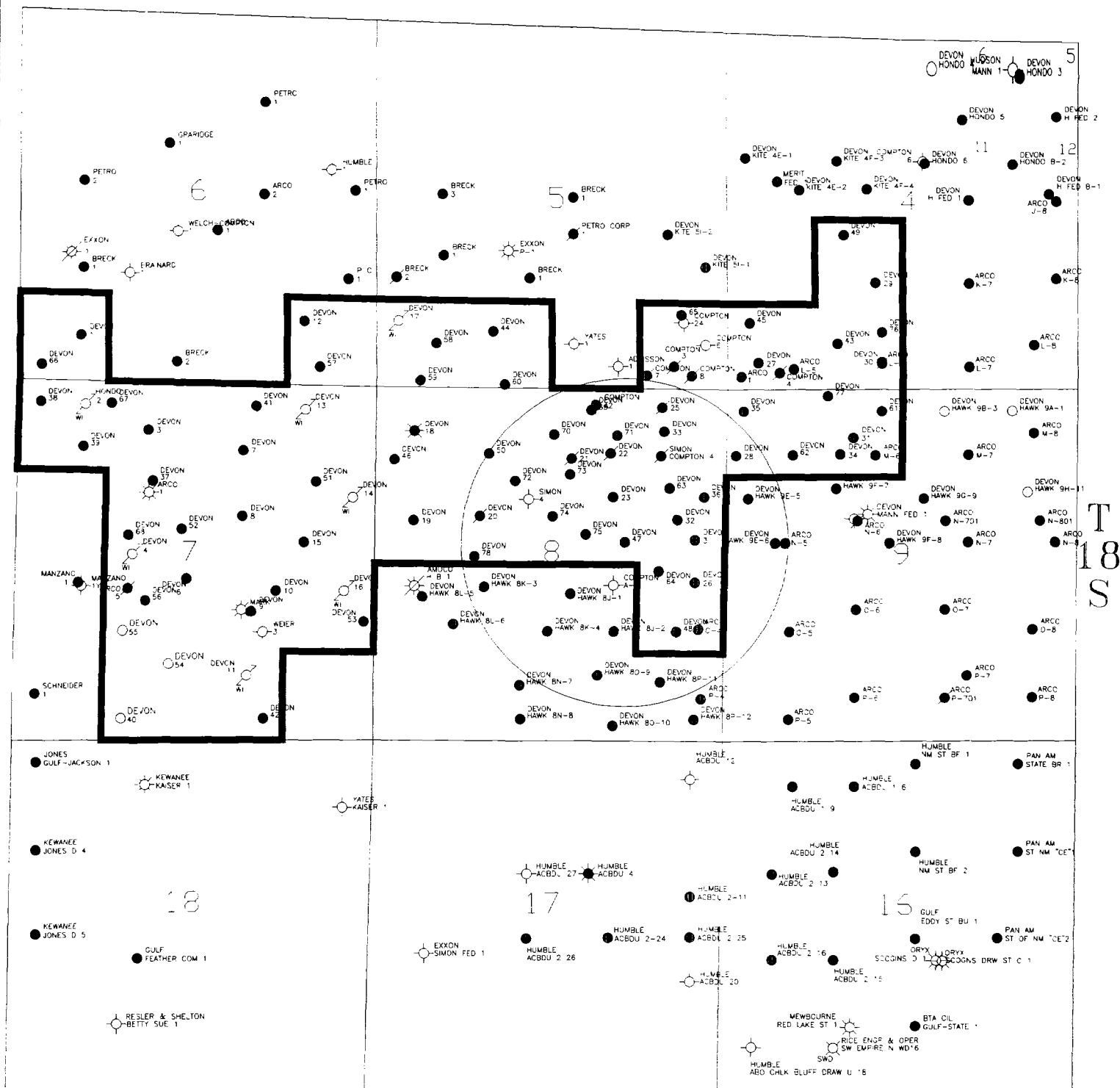
ONE HALF MILE RADIUS AROUND  
WRLU 36

9. EDDY PROJECTS/RED LAKE EXPANDED  
NO 1512E BASE

Scale in Feet  
1000 0 1000 2000 3000 4000



R 27 E



# Attachment V

**devon**  
ENERGY CORPORATION

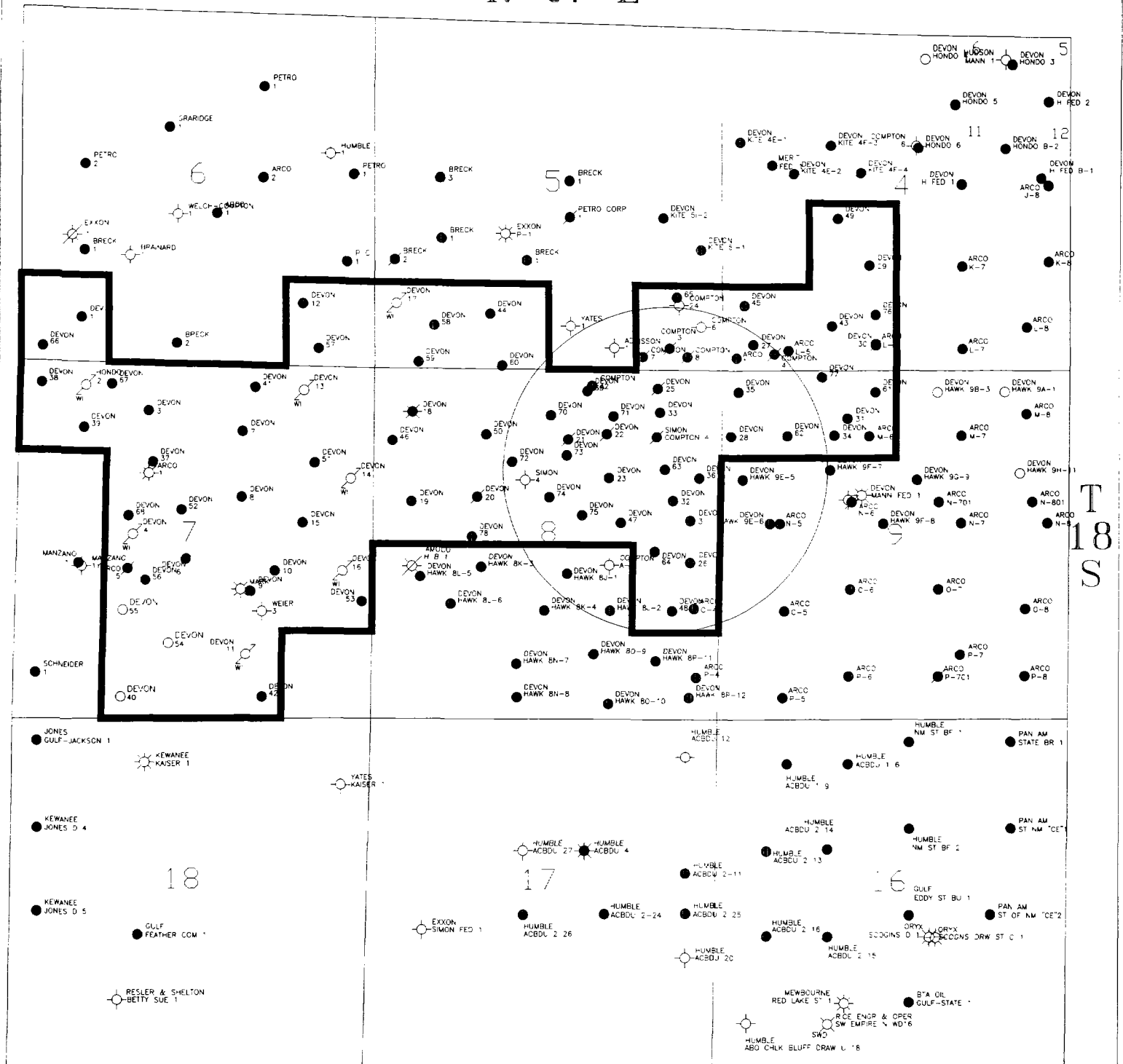
**WEST RED LAKE UNIT**  
EDDY COUNTY, NEW MEXICO

ONE HALF MILE RADIUS AROUND  
WRLU 47

NO 15' 2" BASE

Scale in Feet  
1000 0 1000 2000 3000 4000

R 27 E



Attachment IV

devon  
ENERGY CORPORATION

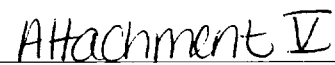
WEST RED LAKE UNIT  
EDDY COUNTY, NEW MEXICO

ONE HALF MILE RADIUS AROUND  
WRLU 63

0.1 INCHES PROJECTS/RED LAKE EXPANDED  
N01512E BASE

Scale in Feet  
1000 0 1000 2000 3000 4000

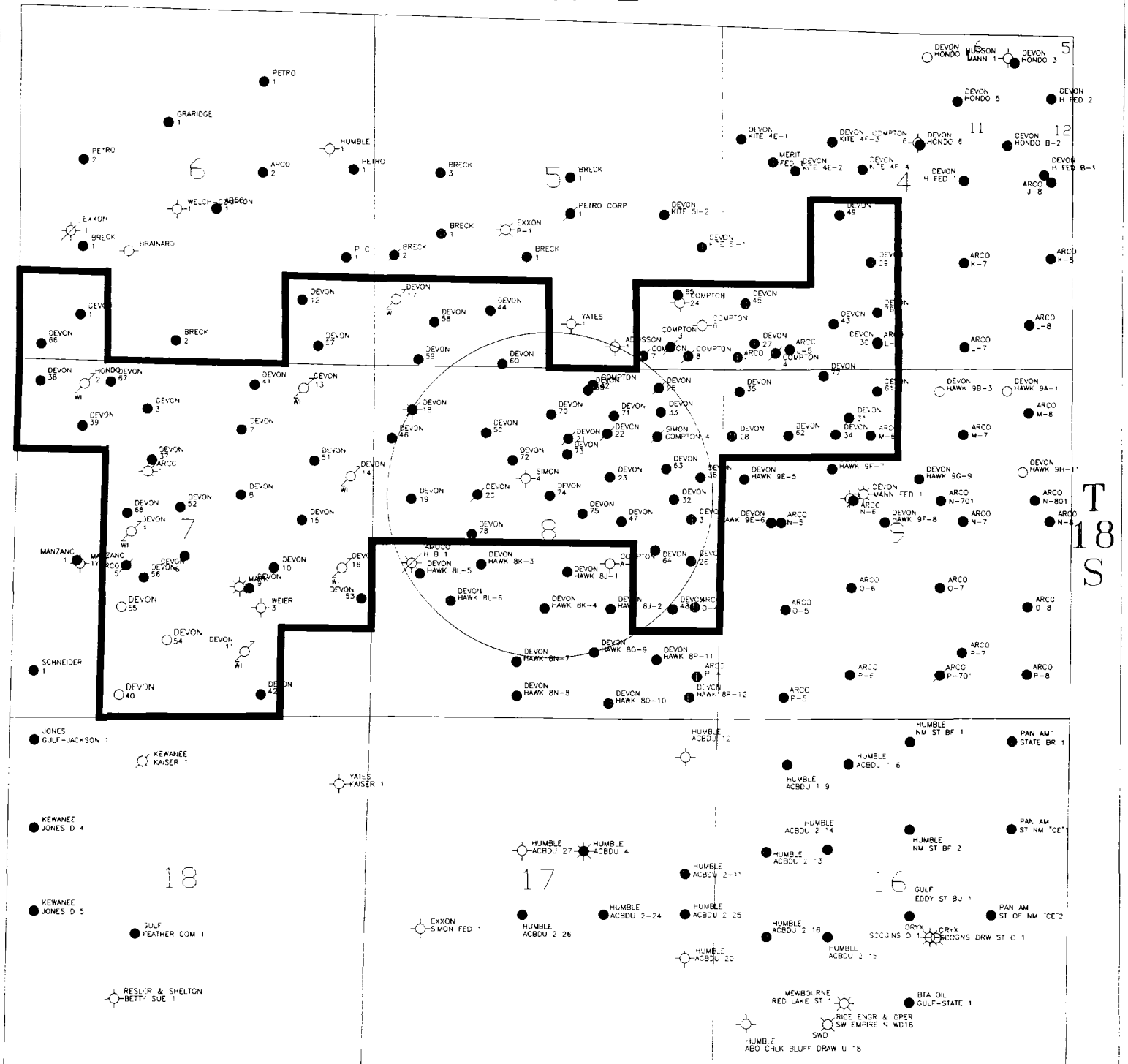
T  
18  
S



Scale in Feet

1000 0 1000 2000 3000 4000

R 27 E



Attachment V

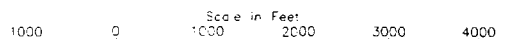


# WEST RED LAKE UNIT

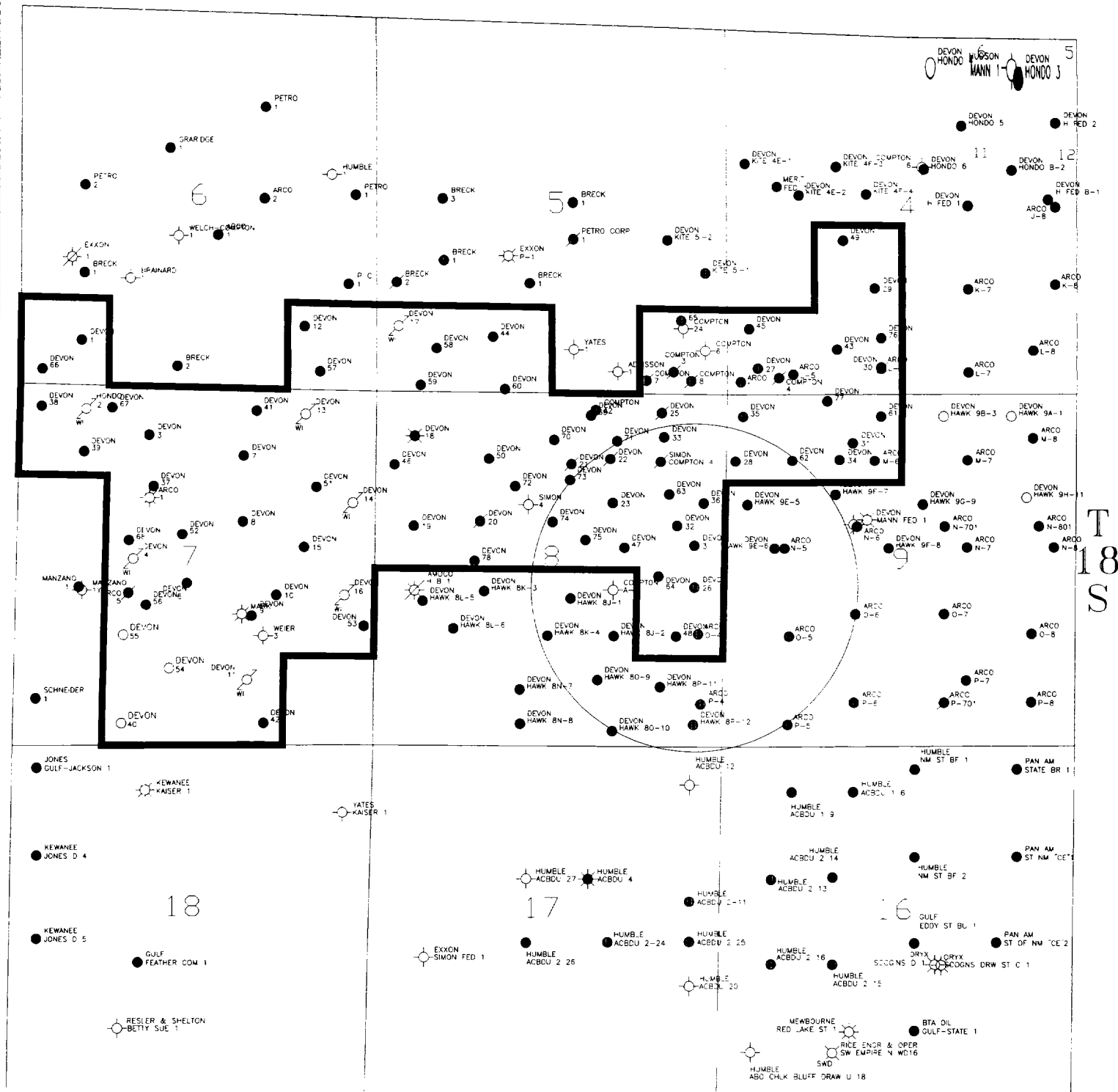
EDDY COUNTY, NEW MEXICO

ONE HALF MILE RADIUS AROUND  
WRLU 74

EDDY PROJECTS, RED LAKE, EXPANDED	
N01512	BAS



R 27 E



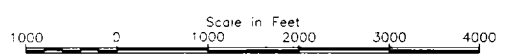
Attachment V



WEST RED LAKE UNIT  
EDDY COUNTY, NEW MEXICO

ONE HALF MILE RADIUS AROUND  
WRLU 26

NO 1512E BASE



# NEW MEXICO SCHOOL OF MINES

STATE BUREAU OF MINES AND MINERAL RESOURCES

SOCORRO, NEW MEXICO

## NEW MEXICO WELL LOG DIVISION

COUNTY Eddy

FIELD

COMPANY R. D. Compton

LEASE Brainerd

No. 6 Well

LOCATION (1/4) E SE SE

SEC. 5 T. 18S. R. 27E

660 feet from south line and

330 feet from east line of Section

### CASING RECORD

Diam., in.	Bottom
12 1/2"	235'
10"	586'
8 1/2"	1097'
6-5/8"	1324'

ELEVATION 3498

FEET

### INITIAL DAILY PRODUCTION:

Open

Open

Tbg.

Tbg.

bbls. Oil

cu. ft. Gas

bbls. Oil

cu. ft. Gas

COMMENCED

COMPLETED

ABANDONED

REMARKS: D & A

1-23-34

7-11-34

FORMATION	BOTTOM, FEET	FORMATION	BOTTOM, FEET
Red bed	10	Blue shale	350
Hard white gyp	15	Grey gyp	360
Red bed	25	Red bed	365
White gyp	30	Grey gyp	375
Red bed	35	Hard grey gyp	380
White gyp	40	White gyp, 50. 85-90'	385
Red bed	45	Grey gyp and grey sandy shale	390
White gyp	50		
Red bed	55	White and grey gyp, soft	395
White gyp	65	White gyp	405
Red bed	70	Grey gyp	410
White gyp	95	Brown lime, gas 15-20'	415
Light grey gyp	100	Grey lime	418
Red bed	105	Grey gyp	430
Hard white gyp	110	Blue shale	434
Grey lime	115	White gyp, soft	440
Grey gyp	125	Red bed	443
Hard grey lime	130	Grey gyp	458
White gyp	140	Brown sandy lime	465
Red bed	145	Brown lime	470
White gyp	157	Grey gyp	475
Gyp and lime	160	Red bed and white gyp	480
White gyp, hard	170	Red bed, grey and white gyp	485
White gyp and red bed	175	Grey gyp	498
White gyp, wtr. 160-80'	190	Grey sandy lime	500
Gyp and red bed	195	Blue shale, S.O.	502
White and grey gyp	200	Grey and white gyp	508
Red bed	203	Red bed, wtr.	526
Grey gyp and wtr.	210	Grey and white gyp	539
Grey gyp	220	Grey and white gyp	
Gyp and sand, sul. wtr.	225	and red bed	543
Gyp mud	230	Red bed	558
Grey gyp	252	Red bed and blue shale	562
White and grey gyp	259	Gyp and blue shale	565
Grey gyp	270	Gyp, red bed and shale	570
White gyp, soft	275	Grey gyp	578
Brown gyp	280	Grey gyp and blue shale	580
Grey gyp	295	Grey gyp	582
Gyp and shale	305	Red bed	584
White and grey gyp	327	Grey and white gyp	586
Dark gyp	332	White gyp	588
Grey gyp	340	Red bed and blue shale	590
White gyp	345	White gyp	610

## STATE BUREAU OF MINES AND MINERAL RESOURCES

COUNTY

Eddy

SOCORRO, NEW MEXICO

FIELD

COMPANY R. D. Compton

## NEW MEXICO WELL LOG DIVISION

LEASE Brainerd

No. 6 Well

LOCATION (1/4)

SEC. 8 T. 18S . R. 27E

CASING RECORD		ELEVATION	FEET	COMMENTS
Diam., in.	Bottom			
INITIAL DAILY PRODUCTION:				
Open			bbls. Oil	COMMENCED
Open			cu. ft. Gas	COMPLETED
Tbg.			bbls. Oil	ABANDONED
Tbg.			cu. ft. Gas	REMARKS:

FORMATION	BOTTOM, FEET	FORMATION	BOTTOM, FEET
Red bed	612	Gyp	968
Grey gyp	627	White sand and red sandy gyp	974
Red bed	630	Pink sandy gyp	980
Grey and pink gyp	635	Red sand	987
Red bed	640	Red sand and gyp	995
Brown sand, white gyp and blue shale	647	Red sand	1060
Red rock	650	Grey lime	1075
Brown sand and grey gyp	665	Brown shale	1085
White and dark grey lime	672	Pink shale	1095
Grey gyp and red bed	680	Brown lime	1097
Brown gyp	685	Grey lime	1123
Blue sandy gyp	690	Brown lime	1125
Blue sand, 1 BWPB 690-95'	695	Pink and grey lime	1135
Red bed	700	Grey lime	1158
Red sand	708	Pink and grey lime	1169
Blue sandy shale and red sand	713	Grey lime	1181
Red sand	718	Lime	1187
Pink gyp, inc. wtr. 720-25'	725	White sand and grey lime	1193
Pink gyp and red sand	730	White sand	1199
Grey, white, brown and pink gyp	755	Grey sandy lime	1205
Dark brown gyp and blue shale	761	Brown sandy lime	1210
Grey gyp, inc. wtr.	767	Brown lime	1222
Red bed and blue shale	770	Grey lime	1234
Grey and brown gyp	775	Sandy lime	1251
Brown gyp	780	Grey sandy lime, skip to 1333'	1255
Grey and pink gyp	787	White lime	1333
Grey lime	792	Grey lime	1351
Brown and grey gyp	795	Grey and pink lime	1369
Grey and pink gyp	800	White lime	1378
Brown gyp	805	Light brown lime	1381
Grey gyp	810	White lime, hard	1388
Grey and pink gyp	815	Light grey lime	1393
Grey gyp	832	White lime	1402
Grey and pink gyp	839	Grey lime	1416
Gyp and red bed	846	White lime, hard	1418
Gyp	889	Grey lime	1482
Gyp and red shale	896	Brown lime	1485
Gyp	926	Grey lime	1490
Blue sandy shale	932	Grey and brown lime	1496
Water sand	937	Grey lime	1510
White sand	968	White lime	1512
		Grey lime	1584

NEW MEXICO SCHOOL OF MINES  
STATE BUREAU OF MINES AND MINERAL RESOURCES  
SOCORRO, NEW MEXICO

NEW MEXICO WELL LOG DIVISION

(Page 3)

COUNTY  
FIELD

Eddy

COMPANY R. D. Compton  
LEASE Brainerd

No. 6 Well

LOCATION (%)

SEC. 5

T. 18S

R.

27E

feet from

line and

feet from

line of Section

COMMENCED

COMPLETED

ABANDONED

REMARKS:

CASING RECORD		ELEVATION	FEET
Diam. in.	Bottom		
		Open	bbls. Oil
		Open	cu. ft. Gas
		Test	bbls. Oil
		Test	cu. ft. Gas

FORMATION	BOTTOM, FEET	FORMATION	BOTTOM, FEET
Dark line	1898		
Gray and brown line	1898		
Gray and brown line	1898		
Dark gray line, rainier oil	1830		
Dark gray line, hard	1838		
Brown line	1868		
Brown line, very hard	1871		
Dark gray line	1708		
Brown line	1708		
Black line	1728		
Brown line	1728		
Dark line	1744		
Brown sandy line	1828		
Dark gray line, Gas			
1820-281 & M	1828		
Soft brown line	1858		
Medium brown line	1861		
Soft brown line	1864		
Hard brown line	1889		
Dark gray line, soft	1918		
Soft gray line, 28-1889	1938		
19-1889-1889			
19-1889-1889			
Hard gray line	1968		
White sand	1967		
Pink and gray line	1875		
Oil sand	1980		
Brown line	1988		
White sandy line	1988		
Gray and white line	1930		



petroROM Well Report  
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----- General Information -----

State	: NMEX	Final Status	: D&A-OG
County	: EDDY	Total Depth	: 1931
Field	: ARTESIA	Spud Date YYYYMMDD:	19340123
Operator Name	: COMPTON R D	Comp Date YYYYMMDD:	19340710
Well Number	: 6	Hole Direction	: VERTICAL
Lease Name	: BRAINARD-FEDERAL A		
API Number	: 30015007840000		
Section or Equiv	: SEC 5	Init Lahee Class	: D
Township	: S018	Final Lahee Class	: D
Range	: E027	Permit Number	:
Spot	:	Elevation	: 00000 ()
Base Meridian	: NEW MEXICO (21)		
Geologic Province	: PERMIAN BASIN		
Formation at TD	:		
Oldest Age Pen	:		

Producing Formation:

----- Additional Location Information -----

Footage Location : 660FSL 330FEL SEC LN  
Location Narrative:

Latitude	: 32.77122	Latitude (Bot)	:
Longitude	: 104.29229	Longitude (Bot)	:

Latitude & Longitude Source: USGS

----- Formation Tests -----

Test Type Form	Top	Base	Hydrostatic		Flowing		Shut In		Open Cush	
			Init.	Final	Init.	Final	Init.	Final	Time	Amt
0001 DST	1278	1280								
0002 DST	1820	1825								

Test Amount Unit Desc	Pipe Recovery				Amount Unit Desc
	Amount	Unit	Desc	Amount	
0001 1 BBL O	20	BBL	ZW		

Test Amount Unit Type	Time	Material to Surface				Time	Amount	Unit	Type	Time
		Amount	Unit	Type	Amount					
0002 250 MCFD GAS										

----- Casing Data -----

Size	Depth	Cement
12 1/2	235	
10	586	
8 1/4	1697	
6 5/8	1324	

----- Actual Bottom Hole From Surface Location -----

Meas	True Vert	Closure	N/S	E/W	State	County
Depth	Depth	Ft Deg Min	Footage		Code	Code

----- Actual Bottom Hole Narrative -----

----- Drilling Narrative -----

Date	Remarks
------	---------

# Attachment VI

## Pro-Kem, Inc.

### WATER ANALYSIS REPORT

#### SAMPLE

Oil Co. : Devon Energy  
Lease : West Red Lake Unit  
Well No.: Free-Water Knock-Out  
Salesman:

Sample Loc. :  
Formation : GRAYBURG - SAN ANDRES  
Date Analyzed: 17-June-1996

#### ANALYSIS

1. pH 6.820
2. Specific Gravity 60/60 F. 1.091
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +0.731  
@ 140 F. +1.611

#### Dissolved Gasses

	MG/L	EQ. WT.	*MEQ/L
4. Hydrogen Sulfide	275		
5. Carbon Dioxide	200		
6. Dissolved Oxygen	Not Determined		

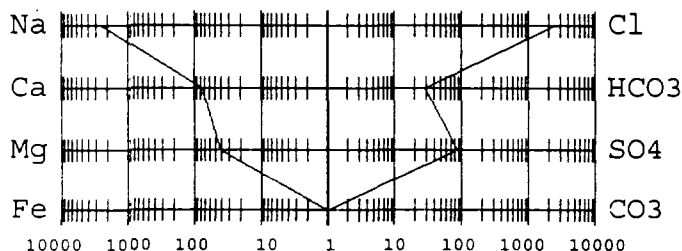
#### Cations

7. Calcium (Ca <sup>++</sup> )	1,503	/ 20.1 =	74.78
8. Magnesium (Mg <sup>++</sup> )	486	/ 12.2 =	39.84
9. Sodium (Na <sup>+</sup> ) (Calculated)	55,071	/ 23.0 =	2,394.39
10. Barium (Ba <sup>++</sup> )	Not Determined		

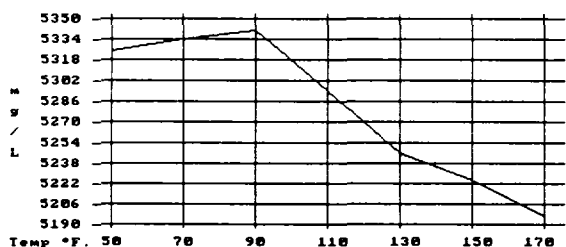
#### Anions

11. Hydroxyl (OH <sup>-</sup> )	0	/ 17.0 =	0.00
12. Carbonate (CO <sub>3</sub> <sup>=</sup> )	0	/ 30.0 =	0.00
13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> )	1,713	/ 61.1 =	28.04
14. Sulfate (SO <sub>4</sub> <sup>=</sup> )	4,100	/ 48.8 =	84.02
15. Chloride (Cl <sup>-</sup> )	84,981	/ 35.5 =	2,393.83
16. Total Dissolved Solids	147,854		
17. Total Iron (Fe)	2	/ 18.2 =	0.11
18. Total Hardness As CaCO <sub>3</sub>	5,755		
19. Resistivity @ 75 F. (Calculated)	0.042 /cm.		

#### LOGARITHMIC WATER PATTERN \*meq/L.



#### Calcium Sulfate Solubility Profile



COMPOUND	EQ. WT.	X	*meq/L = mg/L.
Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	28.04	2,272
CaSO <sub>4</sub>	68.07	46.74	3,182
CaCl <sub>2</sub>	55.50	0.00	0
Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
MgSO <sub>4</sub>	60.19	37.28	2,244
MgCL <sub>2</sub>	47.62	2.56	122
NaHCO <sub>3</sub>	84.00	0.00	0
NaSO <sub>4</sub>	71.03	0.00	0
NaCl	58.46	2,391.27	139,794

\*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.  
Corrosivity is increased by the content of mineral salts, and the presence of H<sub>2</sub>S, CO<sub>2</sub> in solution.

**Affidavit of Publication**

State of New Mexico,  
County of Eddy, ss.

Amy McKay

being first duly sworn, on oath says:

That she is Business Manager  
of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

November 19 \_\_\_\_\_, 19 96  
\_\_\_\_\_, 19 \_\_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_\_

That the cost of publication is \$ 39.71,  
and that payment thereof has been made and will be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this

22nd day of November, 1996

Donna Cunniff

My commission expires 08/01/98  
Notary Public

November 19, 1996

**Legal Advertisement**

Notice is hereby given that Devon Energy Corporation (Nevada) is applying to the New Mexico Oil Conservation to convert the following wells to water injection wells:

West Red Lake #26  
2340' FSL & 400' FEL "I"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #36  
1630' FNL & 330' FEL "H"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #47  
2310' FNL & 1510' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #63  
1500' FNL & 850' FEL "F"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #71  
710' FNL & 1650' FEL "B"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #74  
1930' FNL & 2600' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

The intended purpose of this well is to inject produced waters into the Grayburg/San Andres formation to enhance oil production through secondary recovery. Maximum injection rates of 1500 bwpd and a maximum pressure of 1000 psig are expected.

Interested parties must file objections or requests for hearing within 15 days to the following commission:

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

Ernie Buttross  
District Engineer  
Devon Energy Corporation  
(Nevada)  
20 North Broadway,  
Suite 1500  
Oklahoma City, OK 73102  
(405) 552-4509



20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone: 405/235-3611  
FAX 405/552-4667

January 29, 1997

P 240 501 660

Breck Operating Corporation  
P.O. Box 911  
Breckenridge, TX 76424-0911

RE: Devon Energy Corporation  
West Red Lake Waterflood Project  
Sections 4,5,8,9 T18S-R27E  
Eddy County, NM

Gentlemen:

Please consider this letter as official notification that Devon Energy Corporation is in the process of filing applications to convert approximately six (6) wells to water injection wells in the above referenced Sections. Our records indicate that you are an offset operator. As an offset operator you must be notified by Devon Energy and you must file any objections or requests for hearing of administrative applications with the Oil Conservation Division of New Mexico within fifteen (15) days of receiving this notification. Attached is a copy of the application filed with the New Mexico Oil Conservation.

Please direct questions regarding this matter to Ernie Buttross at (405) 552-4509.

Sincerely,

Devon Energy Corporation

A handwritten signature in cursive script that reads "Diana M. Keys".

Diana M. Keys  
Engineering Technician

/dmk  
enclosures

xc: Well Files



20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone: 405/235-3611  
FAX 405/552-4667

January 29, 1997

P 240 501 U88

Simon  
11200 Westheimer, Ste 200  
Houston, TX 77042-3200

RE: Devon Energy Corporation  
West Red Lake Waterflood Project  
Sections 4,5,8,9 T18S-R27E  
Eddy County, NM

Gentlemen:

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Diana M. Keys  
Engineering Technician

/dmk  
enclosures

xc: Well Files



20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone: 405/235-3611  
FAX 405/552-4667

January 29, 1997

P 240 501 687

Arco  
P.O. Box 1610  
Midland, TX 79702-1610

RE: Devon Energy Corporation  
West Red Lake Waterflood Project  
Sections 4,5,8,9 T18S-R27E  
Eddy County, NM

Gentlemen:

Please consider this letter as official notification that Devon Energy Corporation is in the process of filing applications to convert approximately six (6) wells to water injection wells in the above referenced Sections. Our records indicate that you are an offset operator. As an offset operator you must be notified by Devon Energy and you must file any objections or requests for hearing of administrative applications with the Oil Conservation Division of New Mexico within fifteen (15) days of receiving this notification. Attached is a copy of the application filed with the New Mexico Oil Conservation.

Please direct questions regarding this matter to Ernie Buttross at (405) 552-4509.

Sincerely,

Devon Energy Corporation

A handwritten signature in cursive script that reads "Diana M. Keys".

Diana M. Keys  
Engineering Technician

/dmk  
enclosures

xc: Well Files



20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone: 405/235-3611  
FAX 405/552-4667

January 29, 1997

P240 501 U86

Amoco  
501 Westlake Pk Blvd  
Houston, TX 77253

RE: Devon Energy Corporation  
West Red Lake Waterflood Project  
Sections 4,5,8,9 T18S-R27E  
Eddy County, NM

Gentlemen:

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Diana M. Keys  
Engineering Technician

/dmk  
enclosures

xc: Well Files





20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone: 405/235-3611  
FAX 405/552-4667

January 29, 1997

P 240 501 689

Yates Petroleum Corporation  
105 S. 4th Yates Bldg  
Artesia, NM 88210

RE: Devon Energy Corporation  
West Red Lake Waterflood Project  
Sections 4,5,8,9 T18S-R27E  
Eddy County, NM

Gentlemen:

Please consider this letter as official notification that Devon Energy Corporation is in the process of filing applications to convert approximately six (6) wells to water injection wells in the above referenced Sections. Our records indicate that you are an offset operator. As an offset operator you must be notified by Devon Energy and you must file any objections or requests for hearing of administrative applications with the Oil Conservation Division of New Mexico within fifteen (15) days of receiving this notification. Attached is a copy of the application filed with the New Mexico Oil Conservation.

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Sincerely,

Devon Energy Corporation

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Diana M. Keys  
Engineering Technician

/dmk  
enclosures

xc: Well Files

ATTACHMENT VI

Well Name	Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
West Red Lake	"D"	6/14/44	11/9/44	Oil	1976'	10-3/4" @ 560' no cmt,
Unit #18	660' FNL & 660' FWL Section 8-17S-27E				PBTD 1735'	8-5/8" @ 978' w/1000 sxs cmt, TOC surf. 7" @ 1140' w/100 sxs cmt, TOC est @ 11'.
West Red Lake	"E"	7/7/57	7/18/57	Oil	1767'	Open hole completion f/1140-TD, 241' plug f/1735 to 1976'.
Unit #19	1980' FNL & 660' FWL Section 8-18S-27E				PBTD 1755'	8-5/8" @ 918' w/325 sxs cmt, TOC surf (11" hole) 5-1/2" @ 1767' w/225 sxs cmt, TOC @ 618' by temp survey Perfs. 1615-1746' and 1079-89'
West Red Lake	"E"	9/1/57	9/26/57	P&A'd	1794'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Unit #20	1930' FNL & 1650' FWL Section 8-18S-27E					
West Red Lake	"B"	8/19/54	Oct-85	P&A'd	3005'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Unit #21	990' FSL & 2310' FWL Section 8-18S-27E					
West Red Lake	"B"	10/12/48	12/8/48	P&A'd	1200'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Unit #22	986' FNL & 1647' FEL Section 8-18S-27E					
West Red Lake	"G"	2/13/50	5/31/50	Oil	3468'	7" @ 1025' w/125 sxs cmt, TOC calc @ 260'.
Unit #23	1650' FNL & 1650' FEL Section 8-18S-27E				PBTD 2340'	5" 14# @ 1075' was pulled out 1960'. 4-1/2" 9.5# @ 2340' w/150 sxs cmt, TOC @ 980' via Temp log. Perfs. 1788-1992' (2sp) perf'd 1/11/61
West Red Lake	"G"	7/23/48	10/15/85	P&A'd	1239'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Unit #25	121' FNL & 1003' FEL Section 8-18S-27E		(P&A'd)			
West Red Lake	"I"	12/6/37	4/12/38	Oil	2085'	10" 40# @ 580 Ran 1" 30' down to circ w/cmt, TOC surf. 8-5/8" 32# @ 1140', TOC est @ surf. No cmt volume given 7" 24# @ 1336', No cmt volume given. 4-1/2" 9.5# @ 2085' cmt'd w/125 sxs, TOC 1025' by Cemoton log 10/61. Perfs. 1971-2081' (3 JSPF) in 12/11/61
Unit #26	2340' FSL & 400' FEL Section 8-18S-27E					
West Red Lake	"D"	7/5/49	10/27/49	Oil	2001'	8-5/8" 28# @ 1123' cmt'd w/75 sxs cmt, TOC est @ surf. 7" 23# @ 1568' w/100 sxs cmt, TOC calc @ 440' 5-1/2" 15# set @ 1909' cmt, w/100 sxs. TOC est @ 1375' Open hole formation: 1943-58'
Unit #28	990' FNL & 330' FWL Section 9-18S-27E				PBTD 1973'	

ATTACHMENT VI

Well Name	Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
West Red Lake Unit #31	"C" 660' FNL & 1980' FWL Section 9-18S-27E	12/13/61	3/1/62	Oil	2350' PBTD 2341'	10-3/4" 52# @ 27' cmt'd w/20 sxs cmt, Ran 1" to cmt w/54 sxs, TOC surf. 4-1/2" 9.5# @ 2350' w/475 sxs cmt, TOC 200' by temp survey Perfs: 2066-2254' 136 total shots.
West Red Lake Unit #32	"H" 1980' FNL & 660' FEL Section 8-18S-27E	11/29/83	1/26/84	Oil	2156' 2107' PBTD	8-5/8" 24# @ 353' w/300 sxs cmt in 11" hole. TOC est @ surf. 5-1/2" 15.3# K-55 Hydrill FJ-40 @ 2156' cmt'd w/625 sxs cmt, TOC surf. (12/83) Perfs: 12/83: 1953-2055' (80 holes) and 6/84 1236-1313' (28 holes) Attempt to squeeze off 1236-1313' OA 7/84
West Red Lake Unit #33	"A" 660' FNL & 860' FEL Section 8-18S-27E	10/2/84	1/23/85	Oil	2150' PBTD 1980'	8-5/8" @ 1047' cmt'd w/500 sxs cmt, TOC surf 5-1/2" 14# K-55 @ 2150' w/350 sxs cmt, TOC surf. Perfs: 2018-2027' (10/84), 1886, 96', 1902-74' (10/84 - 11 shots), 1232-41' (1/85 - 16 shots) Cmt retainer @ 1998' w/18' cmt on top.
West Red Lake Unit #34	"C" 990' FNL & 1770' FWL Section 9-18S-27E	7/26/90	9/7/90	Oil	2400' PBTD 2362'	8-5/8" 24# @ 1105' w/550 sxs cmt, TOC est @ surf. 4-1/2" 10.5# J-55 @ 2400' w/590 sxs cmt, TOC surf. Perfs: 2052-2157' OA and 2169-2298' OA (8/90 - 64 shots)
West Red Lake Unit #35	"D" 330' FNL & 240' FWL Section 9-18S-27E	8/10/93	1/6/94	Oil	2800' PBTD 2724'	8-5/8" 24# csg @ 1150' cmt'd w/370 sxs & 200 sxs, TOC surf. 5-1/2" 15.5# @ 2799' w/110 sxs lite & 400 sxs cl "C" TOC surf. Perfs: 1846-2088' (31 holes)
West Red Lake Unit #36	"H" 1630' FNL & 330' FEL Section 36-18S-27E	8/19/93	1/23/93	Oil	3000' PBTD 2903'	8-5/8" 24# csg @ 1137' cmt'd w/455 sxs lite & 200 sxs "C". TOC surf. 5-1/2" 15.5# csg @ 2999' w/130 sxs lite @ 300 sxs "C". TOC surf. Perfs: 1841-2104' (30 holes)
West Red Lake Unit #44	"N" 840' FSL & 1750' FWL Section 5-18S-27E	10/7/95	10/27/96	Oil	2250' PBTD 2203'	8-5/8" 24# @ 1099' w/550 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2249' w/400 sxs cmt, TOC surf. 2-7/8" tbg @ 2109'. Perfs: 1599-2025' (30 holes) Acid & Frac'd.
West Red Lake Unit #45	"N" 990' FSL & 330' FWL Section 4-18S-27E	9/18/95	9/22/95	Oil	2225' PBTD 2146'	8-5/8" 24# @ 1069' w/450 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2221' w/350 sxs cmt, TOC surf. Perfs: 1723-2115' total of 29 holes, Acid & frac'd. 2-7/8" tbg @ 2125'.
West Red Lake Unit #46	"D" 1090' FNL & 280' FWL Section 8-18S-27E	2/4/95	3/12/95	Oil	2050' PBTD 1954'	8-5/8" 24# csg @ 1025' cmt'd w/550 sxs cmt, TOC surf. 5-1/2" 15.5# csg @ 2049' w/ 350 sxs "C". TOC surf. Perfs: 1662-1912' (29 holes) 2-7/8" tbg @ 1936'.

ATTACHMENT VI

Well Name		Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
West Red Lake	Unit #47	"G" 2310' FNL & 1510' FEL Section 8-18S-27E	9/24/96	9/30/95	Oil	2250' PBTD 2199'	8-5/8" 24# @ 1099' w/550 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2249' w/365 sxs cmt, TOC surf. Perfs: 1656-2068' total of 25 holes, Acid & frac'd. 2-7/8" tbg @ 2099'.
West Red Lake	Unit #48	"I" 1650' FSL & 710' FEL Section 8-18S-27E	2/16/95	2/21/95	Oil	2249' PBTD 2191'	8-5/8" 24# @ 1151' w/550 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2249' w/375 sxs cmt, TOC surf. Perfs: 1868-2128' (30 holes) 2-7/8" tbg @ 2153'.
West Red Lake	Unit #50	"C" 990' FNL & 1700' FWL Section 8-18S-27E	8/50/90	10/18/95 * Recompletion	Oil	3044' PBTD 2175' ('94	8-5/8" 24# csg @ 1151' cmt'd w/550 sxs cmt. TOC surf. 4-1/2" csg @ 3040' w/900 sxs "C". TOC est @ perf'd 2832-2901' (21 holes in Yeso) Added perfs 2536-2764' in 4/91 (Yeso), Set CIBP @ 2200' w/2 sxs cmt, Perf'd 1876-1902' (21 holes), 1710-88', and 1644-90' (20 holes).
West Red Lake	Unit #60	"N" 50' FSL & 1930' FWL Section 5-18S-27E	3/16/96	4/11/96	Oil	2200' PBTD 2153'	8-5/8" 24# @ 1013' w/500 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2200' w/370 sxs cmt, TOC surf. Perfs: 1536-1991' (31 holes) 2-7/8" tbg @ 2032'.
West Red Lake	Unit #62	"D" 990' FNL & 990' FWL Section 9-18S-27E	3/28/96	4/19/96	Oil	2400' PBTD 2357'	8-5/8" 24# csg @ 1015' cmt'd w/500 sxs cmt. TOC surf. 5-1/2" csg @ 2400' w/450 sxs "C". TOC @ surf. Perfs: 1894-2132' (27 holes) Acid & frac'd. 2-7/8" tbg @ 2138'.
West Red Lake	Unit #63	"H" 1500' FNL & 850' FEL Section 8-18S-27E	4/4/96	4/25/96	Oil	2250' PBTD 2206'	8-5/8" 24# @ 992' w/550 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2250' w/400 sxs cmt, TOC surf. Perfs: 1656-2065' (26 holes), Acid & Frac'd. 2-7/8" tbg @ 2100'.
West Red Lake	Unit #64	"I" 2250' FSL & 990' FEL Section 8-18S-27E	4/10/96	4/27/96	Oil	2350' PBTD 2311'	8-5/8" 24# csg @ 1033' cmt'd w/550 sxs cmt. TOC surf. 5-1/2" csg @ 2350' w/460 sxs "C". TOC @ surf. Perfs: 1689-2126' (28 holes) Acid & frac'd. 2-7/8" tbg @ 2151'.
West Red Lake	Unit #65	"P" 1108' FSL & 691' FEL Section 5-18S-27E	6/28/96	7/20/96	Oil	2300' PBTD 2226'	8-5/8" 24# @ 1096' w/500 sxs cmt, TOC surf. 5-1/2" 15.5# @ 2199' w/400 sxs cmt, TOC surf. Perfs: 1594-2078' (28 holes), Acid & Frac'd. 2-7/8" tbg @ 1999'.

ATTACHMENT VI

Well Name	Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
West Red Lake Unit #69	"B" 330' FNL & 2050' FEL Section 8-18S-27E	5/16/96	6/13/96	Oil	2200' PBTD 2159'	8-5/8" 24# csg @ 1003' cmt'd w/600 sxs cmt. TOC surf. 5-1/2" csg @ 2199' w/500 sxs. TOC @ surf. Perfs: 1202-2013' (42 holes) Acid & frac'd. 2-7/8" tbg @ 2047'.
West Red Lake Unit #70	"B" 700' FNL & 2600' FEL Section 8-18S-27E	5/23/96	6/23/96	Oil	2200' PBTD 2152'	8-5/8" 24# @ 1006' w/500 sxs cmt. TOC surf. 5-1/2" 15.5# @ 2199' w/400 sxs cmt. TOC surf. Perfs: 1170-1989' (44 holes), Acid & Frac'd, 2-7/8" tbg @ 2025'.
West Red Lake Unit #71	"B" 710' FNL & 1650' FEL Section 8-18S-27E	5/3/96	7/18/96	Oil	2200' PBTD 2154'	8-5/8" 24# csg @ 975' cmt'd w/600 sxs cmt. TOC surf. 5-1/2" csg @ 2199' w/475 sxs. TOC @ surf. Perfs: 1194-1996' (35 holes) Acid & frac'd. 2-7/8" tbg @ 2040'.
West Red Lake Unit #72	"F" 1400' FNL & 2100' FWL Section 8-18S-27E	6/5/96	7/20/96	Oil	2150' PBTD 2107'	8-5/8" 24# @ 1000' w/500 sxs cmt. TOC surf. 5-1/2" 15.5# @ 2150' w/400 sxs cmt. TOC surf. Perfs: 1208-1960' (40 holes), Acid & Frac'd, 2-7/8" tbg @ 1997'.
West Red Lake Unit #73	"B" 1300' FNL & 2350' FEL Section 8-18S-27E	6/11/96	7/26/96	Oil	2200' PBTD 2154'	8-5/8" 24# csg @ 1000' cmt'd w/500 sxs cmt. TOC surf. 5-1/2" csg @ 2199' w/400 sxs. TOC @ surf. Perfs: 1182-1986' (41 holes) Acid & frac'd. 2-7/8" tbg @ 2041'.
West Red Lake Unit #74	"G" 1930' FNL & 2600' FEL Section 8-18S-27E	6/16/96	7/6/96	Oil	2250' PBTD 2205'	8-5/8" 24# @ 1000' w/500 sxs cmt. TOC surf. 5-1/2" 15.5# @ 2250' w/325 sxs cmt. TOC surf. Perfs: 1196-1996' (17 holes), Acid & Frac'd, 2-7/8" tbg @ 2039'.
West Red Lake Unit #75	"G" 2200' FNL & 2100' FEL Section 8-18S-27E	6/22/96	8/16/96	Oil	2250' PBTD 2205'	8-5/8" 24# csg @ 1092' cmt'd w/400 sxs cmt. TOC surf. 5-1/2" csg @ 2251' w/385 sxs. TOC @ surf. Perfs: 1232-2046' (38 holes) Acid & frac'd. 2-7/8" tbg @ 2076'.
West Red Lake Unit #77	"C" 100' FNL & 1500' FWL Section 9-18S-27E	7/4/96	7/26/96	Oil	2400' PBTD 2363'	8-5/8" 24# @ 999' w/500 sxs cmt. TOC surf. 5-1/2" 15.5# @ 2250' w/525 sxs cmt. TOC surf. Perfs: 1812-2226' (25 holes), Acid & Frac'd, 2-7/8" tbg @ 2255'.
West Red Lake Unit #78	"F" 2530' FNL & 1500' FWL Section 8-18S-27E	7/10/96	8/2/96	Oil	2200' PBTD 2155'	8-5/8" 24# csg @ 1045' cmt'd w/600 sxs cmt. TOC surf. 5-1/2" csg @ 2199' w/450 sxs. TOC @ surf. Perfs: 1540-1949' (30 holes) Acid & frac'd. 2-7/8" tbg @ 1999'.

ATTACHMENT VI

Well Name		Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
Hawk "8J"		"J"	7/16/96	8/8/96	Oil	2250'	8-5/8" 24# @ 1059' w/500 sxs cmt, TOC surf.
Federal #1	2210' FSL & 2310' FEL					PBTD 2205	5-1/2" 15.5# @ 2249' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1238-2066' (26 holes), Acid & Frac'd, 2-7/8" tbg @ 2111'.
Hawk "8J"	"J"	9/7/96	9/28/96		Oil	2300'	8-5/8" 24# @ 1087' w/500 sxs cmt, TOC surf.
Federal #2	1650' FSL & 1650' FEL					PBTD 2254'	5-1/2" 15.5# @ 2299' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1293-2074' (25 holes), Acid & Frac'd, 2-7/8" tbg @ 2108'.
Hawk "8K"	"K"	8/2/96	9/1/96		Oil	2199'	8-5/8" 24# @ 1044' w/500 sxs cmt, TOC surf.
Federal #3	2310' FSL & 1650' FWL					PBTD 2156'	5-1/2" 15.5# @ 2199' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1567-1966' (27 holes), Acid & Frac'd, 2-7/8" tbg @ 2117'.
Hawk "8K"	"K"	7/27/96	8/17/96		Oil	2250'	8-5/8" 24# J-55 @ 1055' w/500 sxs cmt, TOC surf.
Federal #4	1650' FSL & 2610' FWL						5-1/2" J-55 set @ 2249' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1243-2078' (27 holes), Acid & Frac'd, 2-7/8" tbg @ 2106'.
Hawk "8L"	"L"	7/21/96	8/15/96		Oil	2199'	8-5/8" 24# @ 1022' w/500 sxs cmt, TOC surf.
Federal #5	2160' FSL & 725' FWL					PBTD 2159'	5-1/2" 15.5# @ 2199' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1524-2014' (25 holes), Acid & Frac'd, 2-7/8" tbg @ 2038'.
Hawk "8L"	"L"	10/7/96	10/25/96		Oil	2200'	8-5/8" 24# @ 1081' w/500 sxs cmt, TOC surf.
Federal #6	1750' FSL & 1190' FWL					PBTD 2154'	5-1/2" 15.5# @ 2199' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1352-1986' (28 holes), Acid & Frac'd, 2-7/8" tbg @ 2041'.
Hawk "8O"	"O"	9/26/96	10/19/96		Oil	2250'	8-5/8" 24# @ 1087' w/500 sxs cmt, TOC surf.
Federal #9	990' FSL & 1885' FEL					PBTD 2200'	5-1/2" 15.5# @ 2249' w/400 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1658-2092' (30 holes), Acid & Frac'd, 2-7/8" tbg @ 2011'.
Hawk "8P"	"P"	8/8/96	9/7/96		Oil	2350'	8-5/8" 24# @ 1096' w/550 sxs cmt, TOC surf.
Federal #11	890' FSL & 940' FEL					PBTD 2302'	5-1/2" 15.5# @ 2346' w/450 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1293-2140' (23 holes), Acid & Frac'd, 2-7/8" tbg @ 2167'.
Hawk "8P"	"P"	9/15/96	10/10/96		Oil	2400'	8-5/8" 24# @ 1089' w/500 sxs cmt, TOC surf.
Federal #12	330' FSL & 430' FEL					PBTD 2352'	5-1/2" 15.5# @ 2399' w/425 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1426-2184' (26 holes), Acid & Frac'd, 2-7/8" tbg @ 2108'.
Hawk "9E"	"E"	8/14/96	9/17/96		Oil	2411'	8-5/8" 24# @ 1095' w/500 sxs cmt, TOC surf.
Federal #5	1650' FNL & 330' FWL					PBTD 2364'	5-1/2" 15.5# @ 2410' w/425 sxs cmt, TOC surf.
	Section 9-18S-27E						Perfs: 1674-2128' (32 holes), Acid & Frac'd, 2-7/8" tbg @ 2159'.
Hawk "9E"	"E"	9/21/96	10/12/96		Oil	2400'	8-5/8" 24# @ 1112' w/500 sxs cmt, TOC surf.
Federal #6	2310' FSL & 750' FWL					PBTD 2352'	5-1/2" 15.5# @ 2399' w/450 sxs cmt, TOC surf.
	Section 8-18S-27E						Perfs: 1758-2190' (35 holes), Acid & Frac'd, 2-7/8" tbg @ 2227'.

ATTACHMENT VI

Well Name	Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
Hawk "9F"	"F"	8/20/96	9/16/96	Oil	2400'	8-5/8" 24# @ 1011' w/600 sxs cmt, TOC surf.
Federal #7	1500' FNL & 1650' FWL Section 9-18S-27E				PBTD 2352'	5-1/2" 15.5# @ 2399' w/500 sxs cmt, TOC surf. Perfs: 1580-2225' (30 holes), Acid & Frac'd, 2-7/8" tbg @ 2250'.

Well Name	Operator	Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
Empire ABO Unit N #6 30-015-00836	Arco Oil & Gas (Humble Oil & Refining)	"F" 1980' FNL & 1980' FWL Section 9-18S-27E	7/2/60	7/28/60	P&A	5703'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Empire ABO Unit #5 30-015-00839 30-015-00841	Arco Oil & Gas (Humble Oil & Refining)	"L" 1650' FSL & 990' FWL Section 9-18S-27E	5/15/60	6/9/60	Oil	5700'	8-5/8" @ 1501' w/800 sxs cmt, TOC est @ surf 5-1/2" @ 5100' w/800 sxs cmt, TOC est @ surf Treated w/6000 gals acid, IP: 231 BOPD w/FTP 400 psi.
Empire ABO Unit #6 30-015-00835	Arco Oil & Gas (Humble Oil & Refining)	"K" 1980' FSL & 1980' FWL Section 9-18S-27E	2/3/60	7/10/60	Oil	5717'	8-5/8" @ 1476' w/750 sxs cmt, TOC est @ surf 5-1/2" @ 5717" w/350 sxs cmt, TOC est @ 3051' Treated w/1000 gals acid, IP: 129 BOPD w/FTP 300 psi f/5600-5628'
Brainard #8 30-015-00786	Yates	"P" 200' FSL & 545' FEL Section 5-18S-27E	2/8/36	3/2/36	Oil	1258'	8-5/8" @ 1102', no cmt detail given. IP: 20 BOPD f/1102-1258', no treatment given.
Julia "A" Federal #2 (Brainard #3) 30-015-00780	Breck Oper Co (Compton RD)	"P" 332' FSL & 810' FEL Section 5-18S-27E	7/4/30	10/2/30	Oil	1260'	12-3/4" @ 232', no cmt detail given 10" @ 537', no cmt detail given IP 70 BOPD f/1259-1260'.
Brainard #7 30-015-00785	Compton RD	"P" 200' FSL & 1220' FEL Section 5-18S-27E	11/28/35	1/5/36	Oil	1263'	10 3/4" @ 573', no cmt detail given 8-1/4" @ 1085', no cmt detail given 6-5/8" @ 1262', no cmt detail given. IP: 15 BOPD f/1257-1263'.
Brainard-Federal "A" 6 30-015-00784	Compton RD	"P" 660' FSL & 330' FEL Section 5-18S-27E	1/23/34	7/10/34	D&A	1931'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Brainard #4 30-015-00783	Compton RD	"P" 990' FSL & 660' FEL Section 5-18S-27E	2/15/33	6/29/33	D&A	2500'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Brainard #1 30-015-00777	Compton RD	"O" 330' FSL & 1650' FEL Section 5-18S-27E	9/27/38	6/21/39	D&A	2002'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Choque AMX Federal #1 30-015-27521	Yates Petr Corp	"O" 660' FSL & 2310' FEL Section 5-18S-27E	7/30/93	8/15/95	P&A	3950'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO



Well Name	Operator	Location	Spud Date	Completion Date	Type of Well	Depth/PBTD	Completion Record
Hondo "B" Federal	Amoco Prod Co	"L"	11/8/74	12/5/85	P&A'd	9418'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Gas Com #1 30-015-21114		2310' FSL & 660' FWL Section 8-18S-27E					
Vandergriff # 4 30-015-00831	JE Simon	"F" 1650' FNL & 2310' FWL Section 8-18S-27E	4/7/49	5/1/149	D&A	1215'	SEE DOWNHOLE SCHEMATIC FOR P&A'd WELLS FOR WELL INFO
Empire ABO Unit N-4 30-015-00823 formerly Chaik Bluff Draw Unit #3	ARCO	"H" 2260' FNL & 440' FEL Section 8-18S-27E	1/1/64	6/25/64	Oil	9580'	11-3/4" @ 570' w/150 sxs cmt, TOC est @ surf 8-5/8" @ 3088' w/1100 sxs cmt, TOC est @ surf 5-1/2" @ 9280' w/1090 sxs cmt, TOC est @ 3460' Treated 9505-9555' w/acid, IP 3566 MCFD.
Empire ABO Unit O-4 30-015-00825	ARCO	"I" 1650' FSL & 330' FEL Section 8-18S-27E	12/30/60	1/21/61	Oil	5576'	Treated 5260-5418' w/5000 gals acid in workover. 8-5/8" @ 1525' w/775 sxs cmt, TOC est @ surf 4-1/2" @ 5576' w/850 sxs cmt, TOC est @ 2125' IP 5370-5400' 165 BOPD, treated w/acid.

**ATTACHMENT VI**  
**Well Information and Downhole Schematics**  
**Plugged and Abandoned Wells within Area of Review**  
**Devon Energy Corporation**  
**West Red Lake Waterflood Project**

**Well Name:** Chicoke AMX Federal #1

**Location:** Section 5 -18S-27E (6660' FSL + 2310' FEL)

**Operator (at time of plugging):** Yates Petroleum Corp.

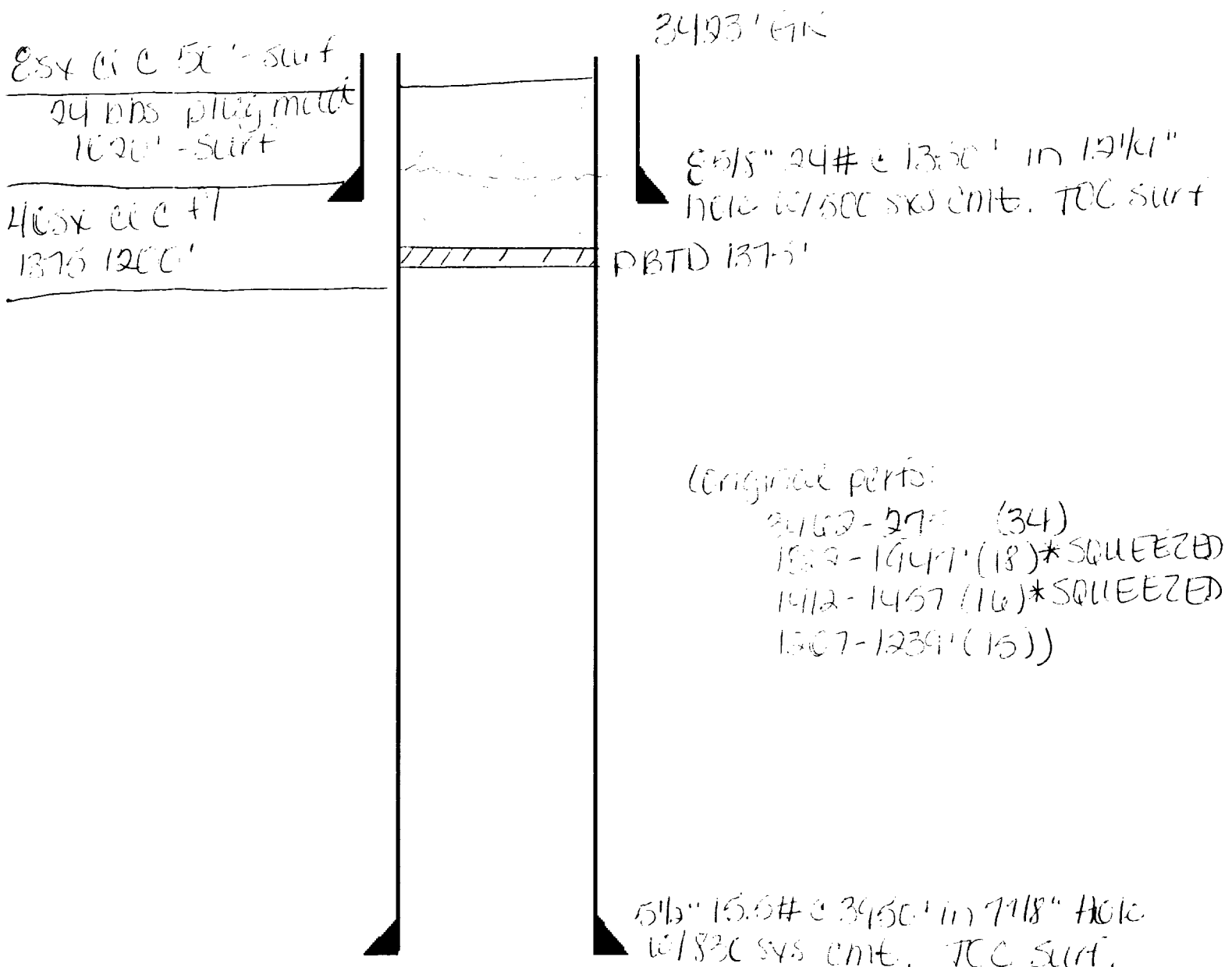
**Date Plugged:** 8/15/90

**Information Obtained From:** BLM Sundry + Comp. Report

**Comments:**

See Attached Completion Report and Plugging  
Sundry.

**Downhole Schematic:**



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

YATES PETROLEUM CORPORATION

(505) 748-1471

3. Address and Telephone No.

105 South 4th St., Artesia, NM 88210

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

660' FSL & 2310' FEL of Section 5-T18S-R27E

Lease Designation and Serial No.

NM-71762

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Choque AMX Federal #1

9. API Well No.

30-015-27521

10. Field and Pool, or Exploratory Area

Undesignated Premier

11. County or Parish, State

Eddy County, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☒ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other

- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

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

13. 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.)

8-16-95 - Moved in and rigged up pulling unit. POOH with rods and pump. Nippled up BOP. POOH with tubing, seating nipple, perforated sub and mud anchor. TIH with tubing and tagged retainer at 1375'. Mixed and pumped 40 sacks Class C 2% CaCl<sub>2</sub> from 1375-1000'. POOH with tubing. WOC 3-1/2 hours. TIH with tubing and tagged top of cement at 1020'. Spot 24 barrels plug mud from 1020' to surface. POOH with tubing to 50'. Mixed and pumped 8 sacks Class C cement from 50' to surface. POOH with tubing. Nippled down BOP. Cleaned location. Installed regulation abandonment marker. **PLUGGED AND ABANDONED - FINAL REPORT.** Plugging completed August 15, 1995. NOTE: Notified Jim Amos w/BLM - Carlsbad of commencing plugging operations.

Approved as to plugging of the well bore  
Liability under bond is retained until  
surface restoration is completed.

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

Signed

Title Production Clerk

Date August 16, 1995

(This space for Signature of State or use)

(JORG. SCD.) JOE G. LARA

Title

PETROLEUM ENGINEER

Date

9/18/95

Approved by  
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

\*See Instruction on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

Budget Bureau No. 1004-0137  
Expires August 31, 1985

Drawings on  
Reverse Side

NM 68210  
NAME, DESIGNATION AND SERIAL NO.

NM-71762

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ MAY 30 10 40 AM '95

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESER. ☐ Other \_\_\_\_\_

2. NAME OF OPERATOR  
YATES PETROLEUM CORPORATION (505) 748-1471

3. ADDRESS OF OPERATOR  
105 South 4th St., Artesia, NM 88210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 660' FSL & 2310' FEL (Unit 0, SWSE)  
At top prod. interval reported below  
At total depth

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Choque AMX Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Undesignated Premier

11. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA

Section 5-T18S-R27E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

15. DATE STUDDED  
RH 7-30-93  
RT 8-10-93  
16. DATE T.D. REACHED  
8-23-93  
17. DATE COMPL. (Ready to prod.)  
9-1-94  
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*  
3423' GR  
19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD  
3950'  
21. PLUG, BACK T.D., MD & TVD  
1375'  
22. IF MULTIPLE COMPL., HOW MANY\*  
23. INTERVALS DRILLED BY  
40-3950'  
ROTARY TOOLS  
CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
1207-1239' Premier  
25. WAS DIRECTIONAL SURVEY MADE  
No

26. TYPE ELECTRIC AND OTHER LOGS RUN  
CNL/LDC & DLL  
27. WAS WELL CORRED  
No

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

CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"		40'	26"	Cement to surface	
8-5/8"	24#	1350'	12-1/4"	500 sx - circulate	
5-1/2"	15.5#	3950'	7-7/8"	830 sx - circulate	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	1177'	

31. PERFORATION RECORD (Interval, size and number)	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
3462-3510' w/9 .42" holes; 2903-2916' w/16 .42" holes; 2744-2770' w/9 .42" holes; 1822-1947' w/18 .42" holes (squeezed); 1412-1457' w/16 .42" holes (squeezed) and 1207-1239' w/15 .42" holes	DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED SEE ATTACHED SHEET

33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
9-1-94		Pumping				Shut in	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
9-5-94	24			12		209	
FLOW. TUBING PRESS.	CASINO PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
10	10		12		209		

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

TEST WITNESSED BY

Tony Vasquez

35. LIST OF ATTACHMENTS

Deviation survey and logs

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

SIGNED Rusty Klen TITLE Production Clerk DATE 5-19-95

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

YATES PETROLEUM CORPORATION  
Choque AMX Federal #1  
Section 5-T18S-R27E  
Eddy County, New Mexico

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

<u>DEPTH INTERVAL</u>	<u>TREATMENT</u>
3462-3510'	Acidized with 2000 gallons 20% NEFE HCL acid and ball sealers
2903-2916'	Acidized with 2000 gallons 20% NEFE HCL acid and ball sealers
2744-2770'	Acidized with 2000 gallons 20% NEFE HCL acid and ball sealers
1822-1947'	Acidized with 4000 gallons 20% NEFE acid and ball sealers
1412-1457'	Acidized with 3000 gallons 15% NEFE acid and ball sealers
1207-1239'	Acidized with 2000 gallons 7-1/2% NEFE HCL acid and ball sealers
1412-1457' & 1822-1947'	pumped 300 sacks Class C 3% CaCl <sub>2</sub> into perforations - on vacuum. Pumped 200 sacks Class C with 7 sacks of 3% CaCl <sub>2</sub> injected on fly - squeezed.

**ATTACHMENT VI**  
**Well Information and Downhole Schematics**  
**Plugged and Abandoned Wells within Area of Review**  
**Devon Energy Corporation**  
**West Red Lake Waterflood Project**

**Well Name:** Vandergrieff #4

**Location:** Section 8 -18S-27E (11650' FNL and 2310' FNL)

**Operator (at time of plugging):** J.E. Simon

**Date Plugged:** 5/49

**Information Obtained From:** SCOUT Report, PI Well Report

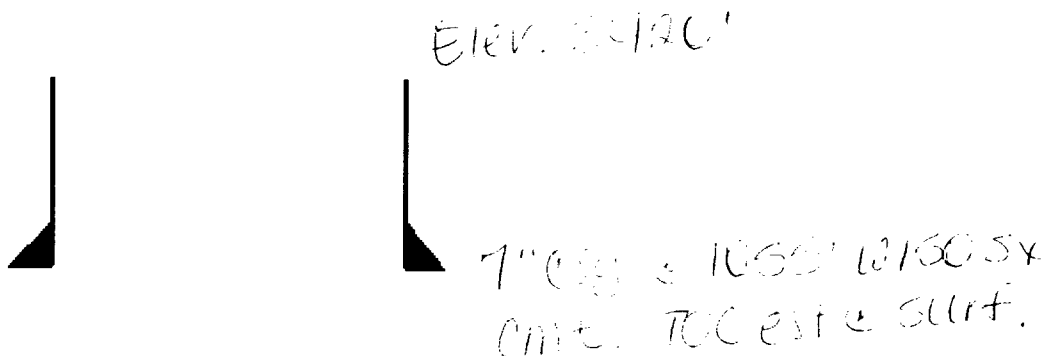
**Comments:**

Spud 4-9-49, was drilled and abandoned.

Completed 5-11-49. No additional casing

info given. No plugging info available.

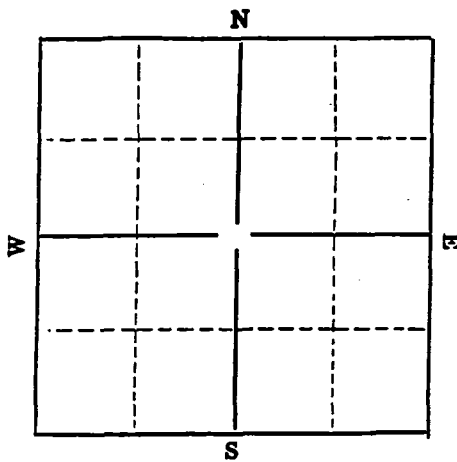
**Downhole Schematic:**



30-015-00831

# SCOUT REPORT

## NEW MEXICO OIL CONSERVATION COMMISSION



### AMOUNT CASING & CEMENTING RECORD

Size	Feet	Sax Cement
7"	1055	50

Company J. E. Simon Pool Red Lake Dist. 8  
 Farm Name Vandergriff Well No. 4  
 Sec. 8 Twp. 18 Range 27 County Eddy  
 Feet from Line: 1650 N. S. E. 2310 W.  
 Elevation 3420 Method    
 Contractor   Land G. N.  
 Spudded 4/9/49 Completed 5/1/49

### ACID RECORD Gals.

TA	TSA
TX	TGI
BX	TTu
TY	TPenn
TQ	TEll
TG	TGr. W
	TGr.
Top Pay	

### TUBING RECORD

PACKER

### SHOOTING RECORD

No. of Quarts <u>100</u>	From <u>1180</u>	To <u>1200</u>
No. of Quarts	From	To
<u>S/ 0 1182-87 S/</u>	<u>S/</u>	<u>S/</u>
<u>S/</u>	<u>S/</u>	<u>S/</u>
<u>S/</u>	<u>S/</u>	<u>S/</u>

Date		Date	
APR 6	<u>Put</u>		<u>Bail 1 day</u>
APR 13	<u>200' 70</u>		
APR 18	<u>610 li</u>		
APR 27	<u>170 1041 li Pumping</u>		
MAR 4	<u>1155 - li</u>		
MAY 11	<u>170 1215 li</u>		
	<u>1200</u>		
MAY 18	<u>170 1215 li</u>		
	<u>1200</u>		
	<u>1200</u>		

petroROM Well Report  
Copyright 1996 by Petroleum Information Corporation

----- General Information -----

State	: NMEX	Final Status	: D&A-O
County	: EDDY	Total Depth	: 1215
Field	: RED LAKE	Spud Date YYYYMMDD:	19490409
Operator Name	: SIMON JULIAN E	Comp Date YYYYMMDD:	19490511
Well Number	: 4	Hole Direction	: VERTICAL
Lease Name	: VANDAGRIFF		
API Number	: 30015008310000		
Section or Equiv	: SEC 8	Init Lahee Class	: D
Township	: S018	Final Lahee Class:	D
Range	: E027	Permit Number	:
Spot	:	Elevation	: 3420 (ES)
Base Meridian	: NEW MEXICO (21)		
Geologic Province:	PERMIAN BASIN		
Formation at TD	:		
Oldest Age Pen	:		

Producing Formation:

----- Additional Location Information -----

Footage Location : 1650FNL 2310FWL SEC LN  
Location Narrative:

Latitude	: 32.76492	Latitude (Bot)	:
Longitude	: 104.30091	Longitude (Bot)	:

Latitude & Longitude Source: USGS

----- Production Tests -----

Test Form	Top	Base	Oil Rate	Gas Rate	Wtr Rate	FTP	BHP	Ck	M	BHT
0001	1056	1200	63 GO							B

PDT Treatment

Test	Top	Base	Volume	Meas	Amount	T/P	PSI	Inj	Type	Nbr	Agent	Add
0001	1180	1201	100	QTS					XPLO			

----- Casing Data -----

Size	Depth	Cement
7	1056	50

----- Actual Bottom Hole From Surface Location -----

Meas	True Vert	Closure	N/S	E/W	State	County
Depth	Depth	Ft Deg Min	Footage		Code	Code

----- Actual Bottom Hole Narrative -----



----- Drilling Narrative -----

Date	Remarks
------	---------

**ATTACHMENT VI**  
**Well Information and Downhole Schematics**  
**Plugged and Abandoned Wells within Area of Review**  
**Devon Energy Corporation**  
**West Red Lake Waterflood Project**

**Well Name:** Hondo "B" Federal Gas Com #1

**Location:** Section E -18S-27E

**Operator (at time of plugging):** Amoco Production Co.

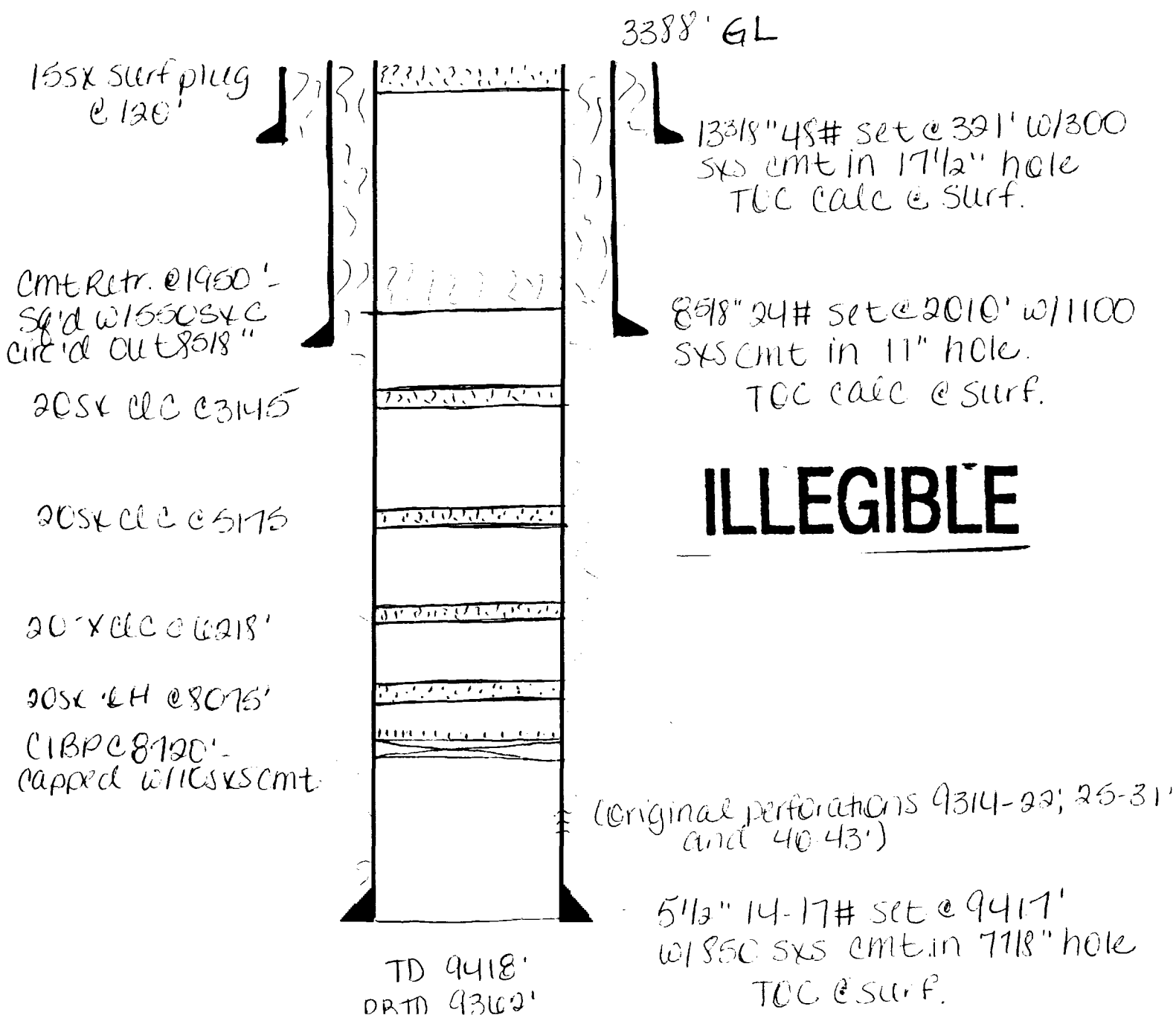
**Date Plugged:** 12/4/85

**Information Obtained From:** BLM Sundry Notice

**Comments:**

Set CIBP @ 8720' and cap w/10 sx cl H cmt,  
 Set 20 sx cl H plug @ 8075'; 20 sx cl C @ 6218';  
 20 sx cl C @ 5175'; 20 sx cl C @ 3145'; Found hole  
 in cs @ 2885-90. Set cmt retr @ 1950' - sq'd w/550  
 sx cl C - circ'd 30 sx ult 8 5/8" cs. Set 15 sx surf  
 plug 120' - surf.

**Downhole Schematic:**



November 1983)  
Formerly 9-331)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRI  
(Other instruction  
reverse side)

Expires August 31, 1985

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 <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> <i>PxA</i>	7. UNIT AGREEMENT NAME <i>Com-SW-959</i>
2. NAME OF OPERATOR <i>AMOCO PRODUCTION COMPANY</i>	8. FARM OR LEASE NAME <i>Hondo B Federal Gas Com</i>
3. ADDRESS OF OPERATOR <i>P.O. BOX 68 HOBBS, NEW MEXICO 88240</i>	9. WELL NO. <i>1</i>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <i>2310' FSL x 660' FWL (UNIT L, NW1/4, SW1/4)</i>	10. FIELD AND POOL, OR WILDCAT <i>Red Lake - Penn</i>
14. PERMIT NO. <i>3001521114</i>	11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA <i>8-18-27</i>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <i>3405' RDB</i>	12. COUNTY OR PARISH <i>Eddy</i>
	13. STATE <i>NM</i>

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input checked="" type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(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.)

1. MISU and POH with packer and tubing.
2. Ran CIBP and set at 8720'. Capped with 105X class H cement and displaced w/brine gel.
3. Pulled up to 8075' and pumped 205X class H cement. Displaced w/brine gel.
4. Pulled up to 6218' and pumped 205X class C cement. Displaced w/brine gel.
5. Pulled up to 5175' and pumped 205X class C cement. Displaced w/brine gel.
6. Pulled up to 3145' and pumped 205X class C cement. Displaced w/brine gel.
7. Found hole in casing at 2885-90'. Set cement retainer at 1950'. Squeezed w/550X class C cement and circulated 305X out 8 7/8" casing.
8. Pulled up to 120' and pumped 155X class C cement surface plug.
9. Installed dry hole Marker and MOSU 12/4/85.

0 + 5 BLM, 1 - JRB, 1 - FJN, 1 - CMH

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

SIGNED *Charles M. Herring*

TITLE *Administrative Analyst (SG)*

DATE *12/5/85*

(This space for Federal or State office use)

APPROVED BY *U.R. Bradley*  
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

*6.29.87*

*Post ID-2*

*7-10-87*

*P.H.*

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

(See other in-  
structions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.5.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	Other <input type="checkbox"/>		
b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. RESVR. <input type="checkbox"/>	Other <input type="checkbox"/>
2. NAME OF OPERATOR AMOCO PRODUCTION COMPANY							
3. ADDRESS OF OPERATOR BOX 367, ANDREWS, TEXAS 79714							
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 2310 FSL x 660 FWL Sec. 8 (Unit 1, NW 1/4 SW 1/4) At top prod. interval reported below At total depth							
14. PERMIT NO.				DATE ISSUED			
15. DATE SPUDDED 11-8-74		16. DATE T.D. REACHED 12-10-74		17. DATE COMPL. (Ready to prod.) 1-15-75		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)** 3405' RDB 3388' GL	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 9418		21. PLUG, BACK T.D., MD & TVD 9362'		22. IF MULTIPLE COMPL., HOW MANY*	
23. INTERVALS DRILLED BY		24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 9314-22, 25-31, 40-43 - MORROW		25. WAS DIRECTIONAL SURVEY MADE No		26. TYPE ELECTRIC AND OTHER LOGS RUN Comp. Neutron, Form. Density, Dual LL	
27. WAS WELL TORED No							
28. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD		AMOUNT PULLED	
13 3/8"	48#	321	17 1/2"	300 cu			
8 5/8"	24#	2010	11"	1100 "			
5 1/2"	14-17#	9417	7 1/8"	850 "			
29. LINER RECORD							
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	30. TUBING RECORD		
					SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 3/8	9255'	9255'
31. PERFORATION RECORD (Interval, size and number) 9314-22, 25-31, 40-43 w/2JSPF							
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.							
DEPTH INTERVAL (MD)				AMOUNT AND KIND OF MATERIAL USED			
				NONE			
33. PRODUCTION							
DATE FIRST PRODUCTION 1-3-75		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) FLW				WELL STATUS (Producing or shut-in) Shut In	
DATE OF TEST 1/15/75	HOURS TESTED 24	CHOKE SIZE 32/64	PROD'N. FOR TEST PERIOD →	OIL—BBL. 7.9 MMCA	GAS—MCF 7.9 MMCA	WATER—BBL. 0	GAS-OIL RATIO
FLOW. TUBING PRESS. 1175-1200	CASING PRESSURE Pkr.	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF	WATER—BBL.	OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) To be sold							
35. LIST OF ATTACHMENTS None							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED Roy R. Graham				TITLE ADMINISTRATIVE ASSISTANT			
DATE JAN 17 1975				DATE JAN 17 1975			

2- USGS Her

1-DIV  
1-WF  
1-REV

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

**ATTACHMENT VI**  
**Well Information and Downhole Schematics**  
**Plugged and Abandoned Wells within Area of Review**  
**Devon Energy Corporation**  
**West Red Lake Waterflood Project**

**Well Name:** Empire ABO Unit "N" #6

**Location:** Section 9 -18S-27E U1980' FNL + 1980' FWL)

**Operator (at time of plugging):** ARCO Oil & Gas Company

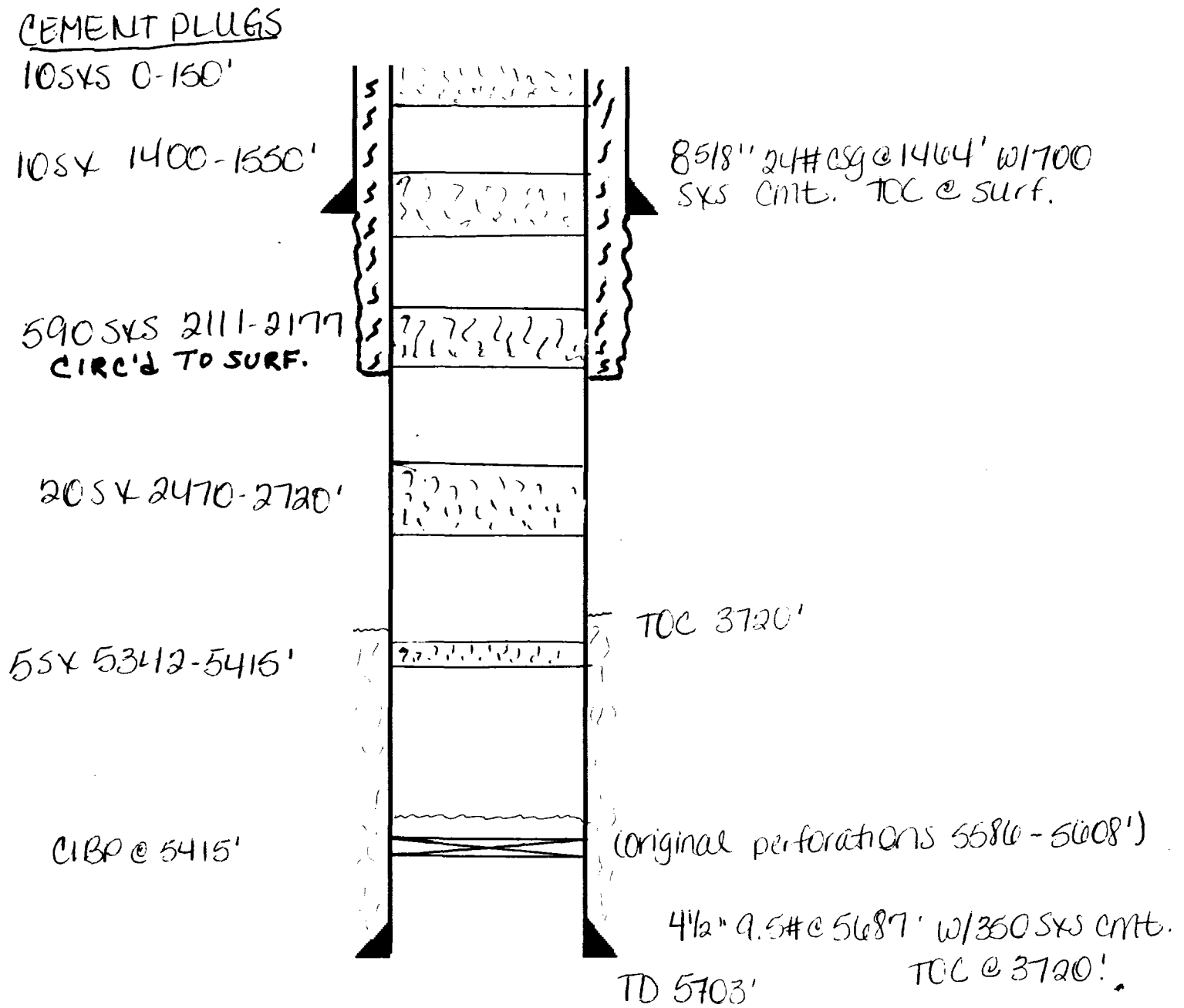
**Date Plugged:** 10/2/92

**Information Obtained From:** BLM Sundry Notice

**Comments:**

located top hole @ 2177' + btm hole @ 3682' Press  
test csg fl/surf - 2170' + fl/3683' - CIBP @ 5415' OK.  
P-A as follows:

**Downhole Schematic:**



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135-  
Expires September 10, 1990

RECEIVED

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT--" for such proposals

AREA: **SUBMIT IN TRIPLICATE**

1. TYPE OF WELL ☒ OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR  
ARCO Oil & Gas Company

3. ADDRESS AND TELEPHONE NO.  
P.O. Box 1610, Midland, TX 79702  
(915) 688-5672

4. LOCATION OF WELL (Footage, Sec., T., R., M., or Survey Description)  
1980 FNL & 1980 FWL (Unit Letter F)  
9-18S-27E

5. LEASE DESIGNATION AND SERIAL NO.

NM - 031186

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. IF UNIT OR CA, AGREEMENT DESIGNATION

8. WELL NAME AND NO.

Empire Abo Unit "N" #6

9. API WELL NO.

30-015-00836

10. FIELD AND POOL, OR EXPLORATORY AREA

Empire Abo

11. COUNTY OR PARISH, STATE

Eddy

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ NOTICE OF INTENT  
☒ SUBSEQUENT REPORT  
☐ FINAL ABANDONMENT NOTICE

TYPE OF ACTION

- ☒ ABANDONMENT  
☐ RECOMPLETION  
☐ PLUGGING BACK  
☐ CASING REPAIR  
☐ ALTERING CASING  
☐ Other
- ☐ CHANGE OF PLANS  
☐ NEW CONSTRUCTION  
☐ NON-ROUTINE FRACTURING  
☐ WATER SHUT-OFF  
☐ CONVERSION TO INJECTION

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

13. 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.)

10-1-92 RUPU. Locate top hole at 2177 & bttm hole at 3682. Press test csg f/surf - 2176 & f/3683 - CIBP at 5415. o.k. P&A'd as follows:

Plug	Interval	Cmt	Remarks
1	5342-5415	5 sx	Spot on top of CIBP at 5415'. Displace hole w 10# MLF (25# salt gel/bbl).
2	3735-3880	10 sx	Spot
3	2470-2720	20 sx	Spot
4	2111-2177	590 sx	Holes at 2177'. CR at 2146'. Circ cmt out 8-5/8 x 4-1/2. Dmp 35' cmt on top of CR.
5	1400-1550	10 sx	Spot
6	0-150	10 sx	Spot. Cut off well head & installed Dry hole marker.

P & A'd 10-2-92

Approved on or before  
Libby, 10/2/92

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

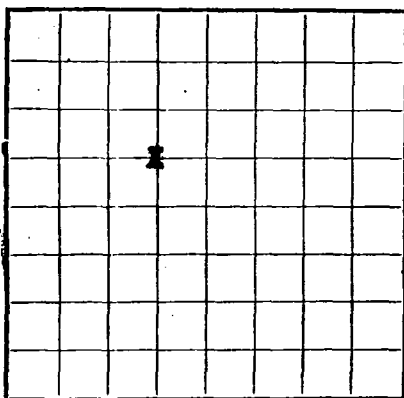
SIGNED Ken W. Gosnell TITLE Regulatory Coordinator DATE 12-21-92

(This space for Federal or State office use)

APPROVED BY David R. Glass TITLE Assistant Director DATE 1-6-93

CONDITIONS FOR APPROVAL, IF ANY:

Title 18 U.S.C. Section 1001, makes 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.

U. S. LAND OFFICE **MM 031186**  
**Co. Inc.**  
SERIAL NUMBER \_\_\_\_\_  
LEASE OR PERMIT TO PROSPECT \_\_\_\_\_

LOCATE WELL CORRECTLY

RECEIVED  
APR 11 1960  
U. S. GEOLOGICAL SURVEY  
ARTESIA, OFFICEUNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYRECEIVED  
APR 12 1960  
U. S. G.  
ARTESIA, OFFICE

## LOG OF OIL OR GAS WELL

Company **MIDDLE OIL & REFINING COMPANY** Address **Box 2180, Houston 1, Texas**  
**Box 2347, Hobbs, New Mexico**  
Lessor or Tract **Abe Chalk Bluff Draw Unit** Field **Empire Abe** State **New Mexico**  
Well No. **2** Sec. **9** T. **12-S** R. **47-E** Meridian **NPM** County **Eddy**  
Location **1900** ft. **[N]** of **[N]** Line and **1900** ft. **[E]** of **[V]** Line of **Section 9** Elevation **3561'**  
(Derrick floor relative to sea level)  
The information given herewith is a complete and correct record of the well and all work done thereon  
so far as can be determined from all available records.  
Signed **R. R. Alworth** **R. R. Alworth**  
Date **April 7, 1960** Title **Dist. Supt.**

The summary on this page is for the condition of the well at above date.

Commenced drilling **February 2,** 19 **60** Finished drilling **February 25**, 19 **60**

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from **5245** to **5638** No. 4, from \_\_\_\_\_ to \_\_\_\_\_  
No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 5, from \_\_\_\_\_ to \_\_\_\_\_  
No. 3, from \_\_\_\_\_ to \_\_\_\_\_ No. 6, from \_\_\_\_\_ to \_\_\_\_\_

## IMPORTANT WATER SANDS

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

## CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
<b>8 5/8</b>	<b>24</b>	<b>4</b>	<b>Unk.</b>	<b>1464</b>	<b>RCB</b>	<b>5245</b>	<b>5245</b>	<b>5638</b>	<b>Surface</b>
<b>6 5/8</b>	<b>9.7</b>	<b>4</b>	<b>Unk.</b>	<b>6671</b>	<b>RCB</b>	<b>5638</b>	<b>5638</b>	<b>9406</b>	<b>Oil String</b>

## MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<b>8 5/8</b>	<b>1480.99</b>	<b>700</b>	<b>Pmpd.</b>	<b>-</b>	<b>-</b>
<b>4 1/2</b>	<b>5703.00</b>	<b>350</b>	<b>Pmpd.</b>	<b>-</b>	<b>-</b>

## PLUGS AND ADAPTERS

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_

## SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

## TOOLS USED

Rotary tools were used from \_\_\_\_\_ feet to **5703 TB** feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

## DATES

**February 28**, 19 **60** Put to producing **February 28**, 19 **60**  
The production for the first 24 hours was **126** barrels of fluid of which **100** % was oil; \_\_\_\_\_ %  
emulsion; \_\_\_\_\_ % water; and \_\_\_\_\_ % sediment. Gravity, °Bé. **42.8**  
Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_      No. 4, from \_\_\_\_\_ to \_\_\_\_\_

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
8-7/8 9-1/8 9-3/8	260 265 270	6-6 6-6 6-6	Baker Baker Baker	1150 1150 1150	Slick Slick Slick	Slick Slick Slick	5586 5586 5586	5608 5608 5608	Oil stud
			MELONA OF OIL CO.						

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8	1480.99	700	Papd.	-	-
4 1/2	5703.00	350	Papd.	-	-

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
 Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_

[illegible]

Rotary tools were used from 0 feet to 5703 TB feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

February 28, 1960		February 28, 1960	
The production for the first 24 hours was	126	barrels of fluid of which	100 % was oil; - %
emulsion; - % water; and - % sediment.		Gravity, °Bé.	42.8
If gas well, cu. ft. per 24 hours		Gallons gasoline per 1,000 cu. ft. of gas	
Rock pressure, lbs. per sq. in.			

R. O. Blackledge	Driller	M. L. Boutler	Driller
Adam Louke	Driller		Driller

FROM—	TO—	TOTAL FEET	FORMATION
0	110	110	Red bed
110	466	356	Red bed & anhydrite
466	1484	1018	Anhydrite & gyp
1484	3523	2039	Lime
3523	3570	47	Lime & sand
3570	5703 TD	2133	Lime
			<b><u>FORMATION TOPS:</u></b>
			San Andres 1520
			Yaso 2900
			Abo 5245'

San Andres	1520
Yaso	2900
Abo	5245'





PDC 11-23-62  
Temp Log 11-23-62  
**Devon**

PJA → 10/11/85  
**ENGINEERING CHART**

SHEET NO. OF

FILE

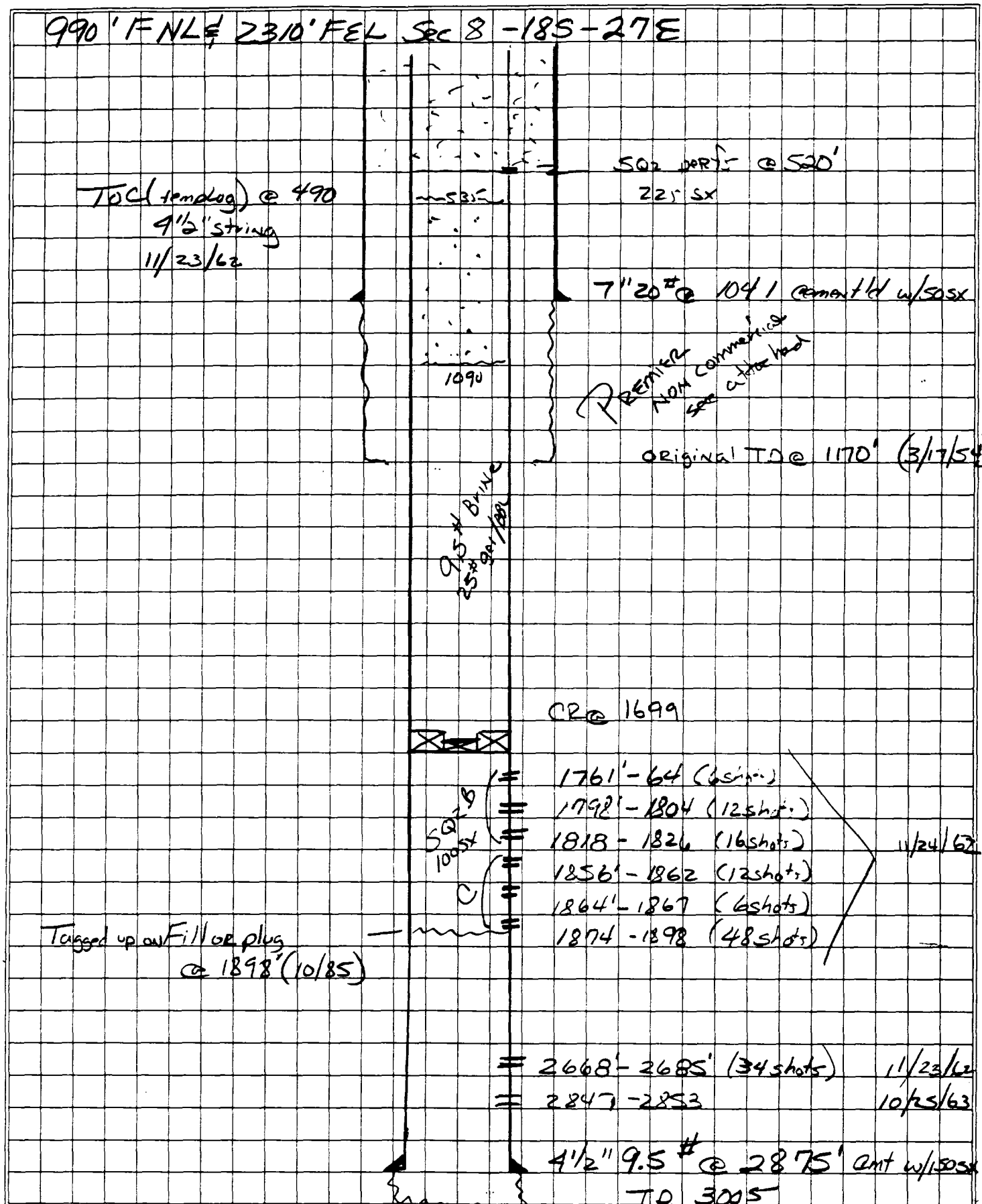
DATE 10/30/92

BY L.S. Powell

GR-N  
open hole 1050' to 3005'

originally Compton #5

SUBJECT: WRLU #21 (William Hukon Pitcher Federal #5)



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SURMIT IN TRIPPLICATE\*  
(Other instructions on re-  
verse side)

Sublet Survey No. 1004-1  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

LC-054205

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS 8210

(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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		30-015-01203	
2. NAME OF OPERATOR ARCO Oil and Gas Company		RECEIVED BY MAY 12 1986 O. C. D. ARTESIA, OFFICE	
Division of Atlantic Richfield Company			
3. ADDRESS OF OPERATOR P. O. Box 1710, Hobbs, New Mexico 88240			
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 990' FNL & 2310' FEL (Unit B)		7. UNIT AGREEMENT NAME	
14. PERMIT NO.		8. FARM OR LEASE NAME West Red Lake Unit	
15. ELEVATIONS (Show whether DF, ST, GR, etc.) 3400' DF		9. WELL NO. 21	
		10. FIELD AND POOL, OR WILDCAT Red Lake Grayburg SA	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 8-18S-27E	
		12. COUNTY OR PARISH Eddy	
		13. STATE N.M.	

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT\*

(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.) \*

1. MIRU. NU BOP,
2. TIH w/bit to 1895'. Established pump-in rate 2 BPM @ 1000# w/pkr set @ 1699'. POH.
3. RIH w/cmt retr, set @ 1699'. Cmtd perfs 1761-1898' w/100 sx Cl H Neat. Dumped 60' cmt on top of retr.
4. Displ csg w/9.5# brine w/25#/bbl gel, PU to 1090'.
5. Spotted 50 sx cmt 1090-535', WOC. Tagged TOC @ 529'.
6. Perf'd 4 holes @ 520'. Cmtd w/225 sx Cl H cmt from 520' to surface.
7. Installed regulation dry hole marker. Clean & level location.  
Well P&A eff: 10/15/85. Final Report.

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

SIGNED

*[Signature]*

TITLE Dist Drlg. Supv.

DATE 10/22/85

(This space for Federal or State office use)

Orig: Spd. C. - S. D. - S. D. - S. D.

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

5-786

\*See Instructions on Reverse Side

A 10x10 grid with an 'X' in the 4th column and 3rd row from the top-left corner.

U. S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

ARTESIAN  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
AUG 30 1954

# LOG OF OIL OR GAS WELL

## LOCATE WELL CORRECTLY

Lessor or Tract Compton Field EMPIRE State NEW MEXICO

Well No. 75 Sec. 8 T. 18-S R. 27-E Meridian N.M.P.M. County EDDY

Location 990 ft. NEX S. of N Line and 2310 ft. NEX W. of N Line of Section 8 Elevation 3400  
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed William J. Koleski

Date 8/19/54 Title Operator

The summary on this page is for the condition of the well at above date.

Commenced drilling 2/1/54, 1954 Finished drilling 3/17/54, 1954

### OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from ~~XXX~~ 1155 to ~~XXX~~ 1160 No. 4, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_      No. 5, from \_\_\_\_\_ to \_\_\_\_\_

No. 3, from \_\_\_\_\_ to \_\_\_\_\_ No. 6, from \_\_\_\_\_ to \_\_\_\_\_

## IMPORTANT WATER SANDS

No. 1, from \_\_\_\_\_ to \_\_\_\_\_      No. 3, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_      No. 4, from \_\_\_\_\_ to \_\_\_\_\_

## CASING RECORD

[illegible]

## MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
7"	1041'	50 Sacks	Denton Cementing Co.		

## PLUGS AND ADAPTERS

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_

Adapters—Material	Size

## SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
None.						

## TOOLS USED

Rotary tools were used from 0 feet to 1040 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from 1040 feet to 1170 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet.

## DATES

....., 19..... Put to producing ..... 19.....

The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_ % was oil; \_\_\_\_\_ % emulsion; \_\_\_\_\_ % water; and \_\_\_\_\_ % sediment. Gravity, °Bé. \_\_\_\_\_

If gas well, cu. ft. per 24 hours \_\_\_\_\_ Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_

**FOLD | MARK**

## MUDDING AND CEMENTING RECORD

## PLUGS AND ADAPTERS

Adapters—Material	Size
-------------------	------

## TOOLS USED

Cable tools were used from 1040 feet to 1170 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet.

\_\_\_\_\_, 19\_\_\_\_ Put to producing \_\_\_\_\_, 19\_\_\_\_

The production for the first 24 hours was ..... barrels of fluid of which ..... % was oil; ..... % emulsion; ..... % water; and ..... % sediment. Gravity, °Bé. ....

If gas well, cu. ft. per 24 hours \_\_\_\_\_ Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_

Rock pressure, lbs. per sq. in. \_\_\_\_\_

<b>R. A. Thomas</b>	Driller	<b>John O'Brien</b>	Driller
	Driller		Driller

**This well is temporarily abandoned.**

After setting 24 hours, well made 1/3 bailer oil; two bailers sulphur water.

GR/N 9/13/57

TREATMENT REPORT 5 9/17/57 &amp; 9/20/57

**Devon**

ENGINEERING CHART

P&amp;A 10/15/85

SHEET NO.

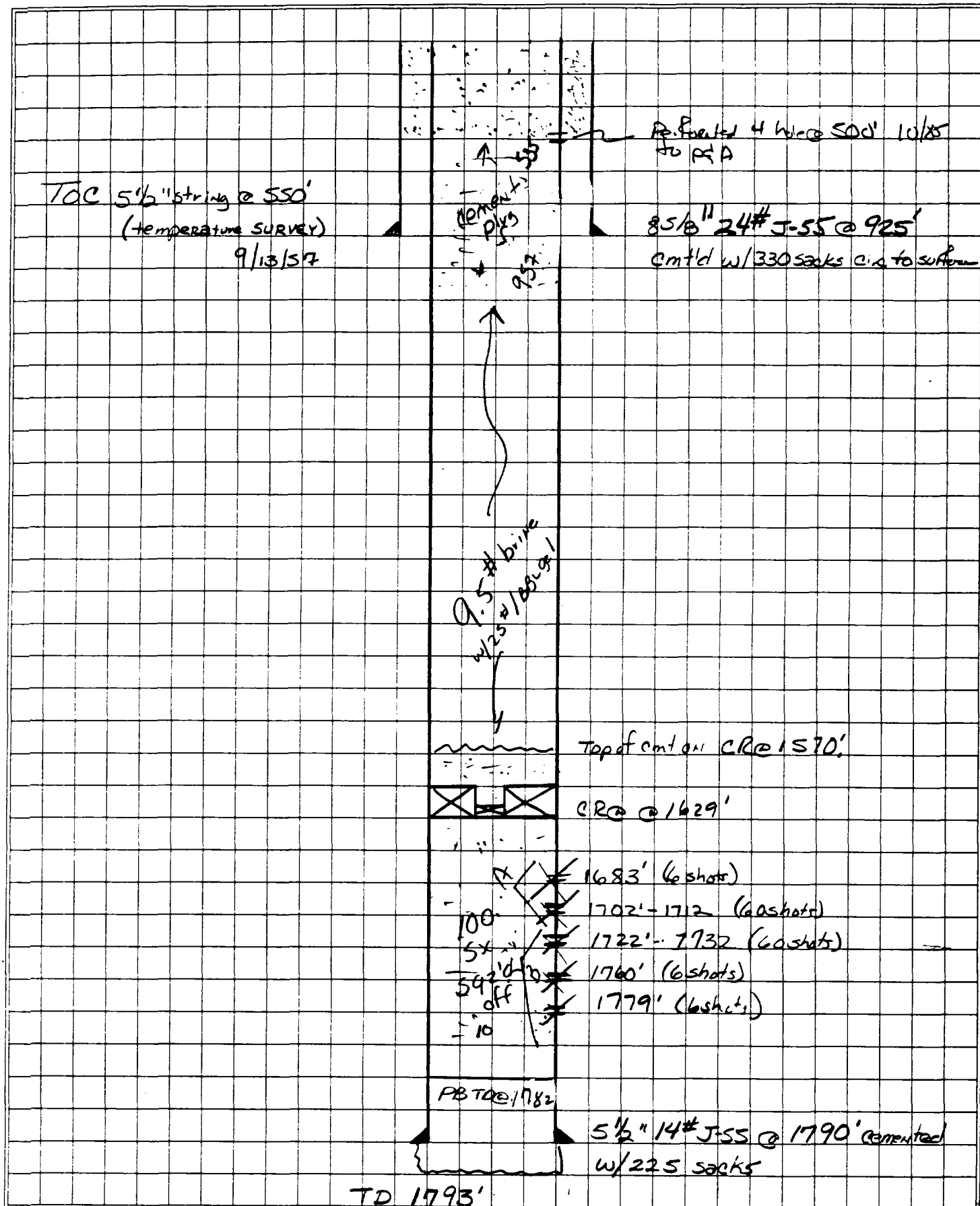
OF

FILE

DATE 10/29/92

BY LS Powell

SUBJECT: WRLU #20 (Malco Refiner Inc. - Gant "A" #2)



DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

30-015-00827

**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.)

LEASE DESIGNATION AND SERIAL

LC 070678(a)

IF INDIAN, ALLOTTEE OR TRIBE NAME

UNIT AGREEMENT NAME

FARM OR LEASE NAME

West Red Lake Unit

WELL NO.

20

FIELD AND POOL OR WILDCAT

Red Lake Grbg SA

SEC., T., R., M., OR BLK. AND SURVEY OR AREA

8-18S-27E

14. PERMIT NO.

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

3376' DF

12. COUNTY OR PARISH

Eddy

13. STATE

N.M.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(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.)

- MIRU 10/08/85. POH w/pump & rods, NU BOP. POH w/tbg.
- TIH w/bit to 1723'. RIH w/pkr, set @ 1629'. Pmpd into perfs 1683-1779' 1.5 BPM @ 1000#, POH.
- RIH w/cmt retr, set @ 1629'. Cmdt w/100 sx C1 H Neat. Tagged TOC @ 1570'.
- Displ csg w/9.5# brine w/25#/bbl gel.
- Spotted cmt plug 967-536'. Tagged TOC @ 530'. Perf'd 5½" csg w/4 holes @ 500'. Broke circ out 5½" x 8-5/8" annulus. Cmdt 5½" csg & 5½" x 8-5/8" annulus 500' to surf thru perfs.
- Cleaned location. Installed regulation dry hole marker. Well P&A eff: 10/15/85. Final Report.

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

SIGNED

*D.D. Williams*

TITLE

Dist Drlg Supv.

DATE

10/22/85

(This space for Federal or State office use)

APPROVED BY

*Chas. S. Dutton*

TITLE

DATE

5-7-86

CONDITIONS OF APPROVAL, IF ANY

\*See Instructions on Reverse Side

OCT 7 1955

U. S. LAND OFFICE **Las Cruces, N.M.**

SERIAL NUMBER LC 070678

LEASE OR PERMIT TO PROSPECT

ARTESIA OFFICE

**UNITED STATES**

**DEPARTMENT OF THE INTERIOR**

**GEOLOGICAL SURVEY**

# LOG OF OIL OR GAS WELL

## LOCATE WELL CORRECTLY

Company Malco Refineries, Inc. Address P. O. Box 660, Roswell, New Mexico

Lessor or Tract **Walter E. Gant "A"** Field **Red Lake** State **New Mexico**

Well No. 2 Sec. 8 T. 18S R. 27E Meridian N. M. P. M. County Eddy

Location 1930 ft.  $\left\{ \begin{array}{c} \blacksquare \\ \text{S.} \end{array} \right\}$  of N Line and 1650 ft.  $\left\{ \begin{array}{c} \text{E.} \\ \blacksquare \\ \text{W.} \end{array} \right\}$  of W Line of Sec. 8 Elevation 3369' (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed J. R. McMillan

Date September 26, 1957

Title Drlg. and Prod. Sup't.

The summary on this page is for the condition of the well at above date.

Commenced drilling September 1, 1957 Finished drilling September 13, 1957

## OIL OR GAS SANDS OR ZONES

(Denote gas by  $G$ )

No. 1, from 1683' to \_\_\_\_\_ No. 4, from 1760' to \_\_\_\_\_

No. 2, from 1702 to 1712' No. 5, from 1779' to \_\_\_\_\_

No. 3, from 1722 to 1732' No. 6, from \_\_\_\_\_ to \_\_\_\_\_

## IMPORTANT WATER SANDS

No. 1, from \_\_\_\_\_ to \_\_\_\_\_      No. 3, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_      No. 4, from \_\_\_\_\_ to \_\_\_\_\_

## CASING RECORD

[illegible]

## MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8	925.37	330	Pump and plug		
5-1/2	1790.25	225	Pump and plug		

## PLUGS AND ADAPTERS

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_

Adapters—Material	Size
-------------------	------

## SHOOTING RECORD

<b>Size</b>	<b>Shell used</b>	<b>Explosive used</b>	<b>Quantity</b>	<b>Date</b>	<b>Depth shot</b>	<b>Depth cleaned out</b>

## TOOLS USED

Rotary tools were used from 0 feet to 10 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

## DATES

September 1, 1957 (spud date) Put to producing September 21, 1957

The production for the first 24 hours was 42 barrels of fluid of which 96 % was oil; ----- % emulsion; 4 % water; and ----- % sediment. Gravity, °Bé. -----

If gas well cu. ft. per 24 hours \_\_\_\_\_ Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_



No. 1, from \_\_\_\_\_ to \_\_\_\_\_

No. 2, from \_\_\_\_\_ to \_\_\_\_\_

No. 3, from \_\_\_\_\_ to \_\_\_\_\_

No. 4, from \_\_\_\_\_ to \_\_\_\_\_

[illegible]

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8	925.37	330	Pump and plug		
5-1/2	1790.25	225	Pump and plug		

Heaving plug—Material	Length	Depth set
Adapters—Material	Size	

[illegible]

Rotary tools were used from 0 feet to T. D. feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

September 1, -----, 19-57 (spud date) Put to producing September 21, -----, 19-57  
The production for the first 24 hours was ----- barrels of fluid of which ----- % was oil; ----- %  
emulsion; ----- % water; and ----- % sediment. Gravity, °Bé. -----  
If gas well, cu. ft. per 24 hours ----- Gallons gasoline per 1,000 cu. ft. of gas -----  
Rock pressure, lbs. per sq. in. -----

H. M. Heath	Driller	T. V. Smith	Driller
J. D. Smith	Driller		Driller

FROM—	TO—	TOTAL FEET	FORMATION
0	880	880	Sand, anhydrite and shale
880	1155	275	Dolomite and anhydrite
1155	1794'	639	Dolomite

P<sub>3</sub>A 10/12/85

**Devon**

ENGINEERING CHART

SHEET NO.

OF

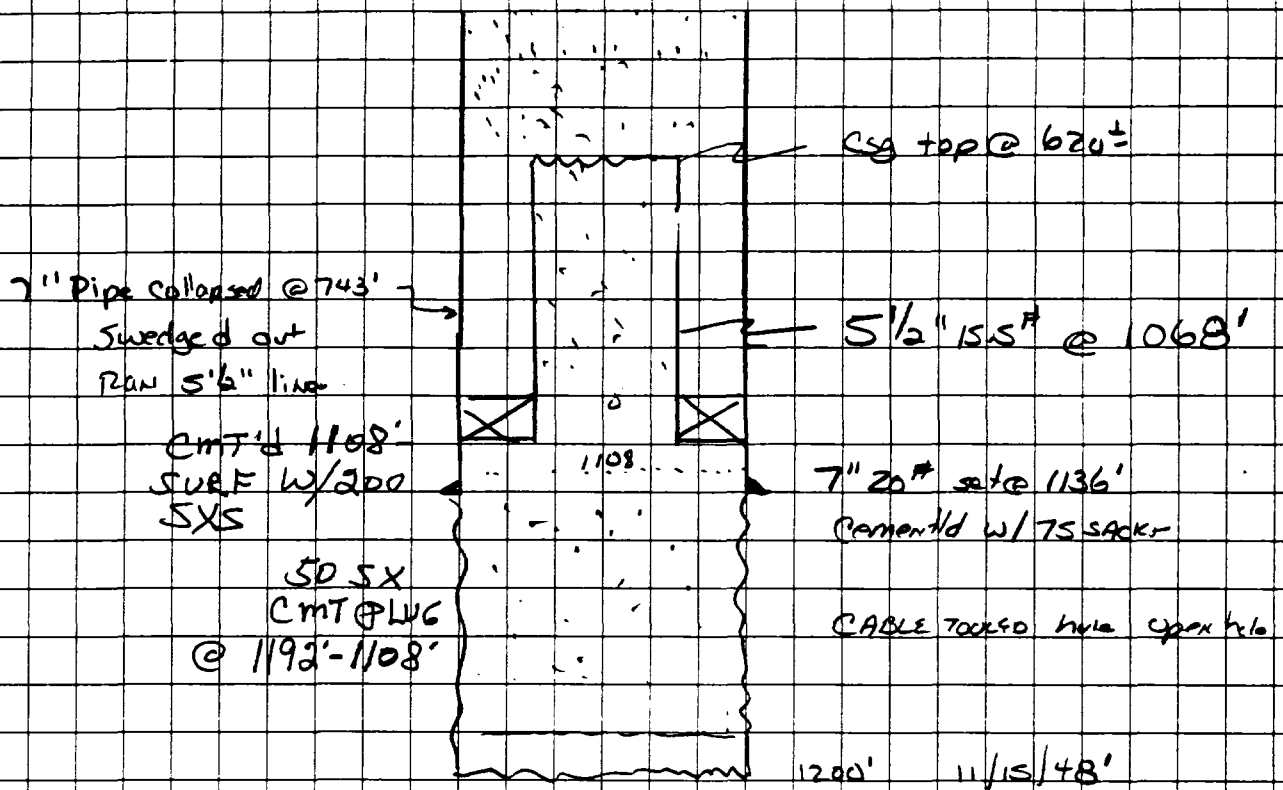
FILE

DATE 10/30/92

BY LSPowell

SUBJECT: WRLU #22 (Atlantic-Picher Federal #3  
(originally Julian Simon - Compton #3))

986' FML #1648' FEL Section 8-185-278



Test'd 452000 AFTER SHOT  
w/ 20 QTS Glycerin  
SHOT 1194' to 1200'

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

30-015-0083

LEASE IDENTIFICATION AND SERIAL

LC 054205

6 IF INDIAN, ALLOTTEE OR TRIBE NAME

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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR ARCO Oil and Gas Company Division of Atlantic Richfield Company		8. FARM OR LEASE NAME West Red Lake Unit	
3. ADDRESS OF OPERATOR P. O. Box 1710, Hobbs, New Mexico 88240		9. WELL NO. 22	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 986' FNL & 1648' FEL (Unit B)		10. FIELD AND POOL OR WILDCAT Red Lake Grayburg SA	
14. PERMIT NO.		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 8-18S-27E	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) Unknown		12. COUNTY OR PARISH Eddy	
		13. STATE N.M.	

RECEIVED BY  
MAY 12 1986  
O. C. D.  
ARTESIAL OFFICE

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 COMPLETION

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON\*

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANE

(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.)

1. MIRU 10/10/85. POH w/rods & pump. POH w/tbg. NU BOP.
2. TIH w/csg scraper to 1033'. RIH w/FBRC to 1000', press 5½" x 2-7/8" annulus to 100#. Hole in 5½" csg @ surface, POH.
3. RIH w/2-7/8" tbg OE, tagged @ 1192'. Spotted 50 sx Cl H Neat cmt, PU to 1091'. RO 19 sx cmt. ND BOP.
4. PU on 5½" csg & parted. POH w/20 jts 5½" csg.
5. RIH w/2-7/8" tbg OE, tagged cmt @ 1108'.
6. Cmtd 1108' to surface w/200 sx Cl H Neat cmt.
7. Installed regulation dry hole marker, cleaned & levelled location. Well P&A eff: 10/12/85. Final Report.



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

SIGNED

*[Signature]*

TITLE Dist Drlg Supv.

DATE 10/23/85

(This space for Federal or State office use)

Orig. Sgd. Charles C. [Signature]

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Post ID-2  
11-8-85  
P. H.

\*See Instructions on Reverse Side

U. S. LAND OFFICE \_\_\_\_\_ Las Cruces  
SERIAL NUMBER \_\_\_\_\_ 054205  
LEASE OR PERMIT TO PROSPECT \_\_\_\_\_ Lease

UNITED STATES 30-015-00832  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

# LOG OF OIL OR GAS WELL

## LOCATE WELL CORRECTLY

Company Julian E. Simon Address 1/2 William Hudson, Artesia Hotel Bldg.,  
Lessor or Tract R. D. Compton Field ~~San Jose~~ Red Lake State Artesia New Mexico  
Well No. #3 Sec. 8 T. 18S R. 27E Meridian N.M.P.M. County Eddy  
Location 986 ft. N of N Line and 1648 ft. W of E Line of Section 8 Elevation \_\_\_\_\_  
(Denote Area relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed \_\_\_\_\_

Date 1/4/49 Title Agent

The summary on this page is for the condition of the well at above date.

Commenced drilling October 6th, 1948 Finished drilling November 15th, 1948

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1188 to 1193      No. 4, from      to  
No. 2, from      to      No. 5, from      to  
No. 3, from      to      No. 6, from      to

## IMPORTANT WATER SANDS

No. 1, from 254 to 258      No. 3, from 985 to 987  
No. 2, from 860 to 895      No. 4, from to

## CASING RECORD

Size casting	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
2 1/2" port	120#	10-V	1136	Fleet	sat on packer in 7" casing				
2 1/2" port	134	10-V	1068	sat on packer in 7" casing					

## MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
7"	1136'	75	Halliburton		

## PLUGS AND ADAPTERS

**Heaving plug—Material** ..... **Length** ..... **Depth set** .....

**Adapters—Material** ..... **Size** .....

## SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
		Nitroglycerin	20 Qts.	11/14	1194-1200	1200

## TOOLS USED

Rotary tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from -0- feet to 1200 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

## DATES

-----, 19----- Put to producing ----- December 1st -----, 19 48

The production for the first 24 hours was 45 ----- barrels of fluid of which 100. % was oil; ----- % emulsion; ----- % water; and ----- % sediment. Gravity, °Bé. -----

If gas well, cu. ft. per 24 hours

Collins - 19

**FOLD ! MARK**

No. 1, from 254 to 258      No. 3, from 985 to 987  
No. 2, from 860 to 895      No. 4, from \_\_\_\_\_ to \_\_\_\_\_

[illegible]

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
7"	1136'	75	Halliburton		

**Heaving plug—Material** ..... **Length** ..... **Depth set** .....

**Adapters—Material** ..... **Size** .....

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
		Nitroglycerin	20 Qts.	11/14	1194-1200	1200

Rotary tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

Cable tools were used from -0- feet to 1200 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

....., 19.....	Put to producing ..... December 1st ..... 19.....
The production for the first 24 hours was 45.....	barrels of fluid of which 100% was oil; ..... %
emulsion; ..... % water; and ..... % sediment.	Gravity, °Bé. ....
If gas well, cu. ft. per 24 hours .....	Gallons gasoline per 1,000 cu. ft. of gas .....
Rock pressure, lbs. per sq. in. ....	

T. B. Hammond	, Driller	Bill Hudson	, Driller
Harry Hubbard	, Driller		, Driller

FROM—	TO—	TOTAL FEET	FORMATION
-0-	95	95	Gyp
95	112	17	Brown Lime
112	130	18	Gyp
130	135	5	Brown Lime
135	149	14	Gray Lime & Gyp
149	157	8	Gray Lime & Gyp
157	160	3	White Lime
160	180	20	Anhydrite & Lime
180	190	10	Brown Lime
190	226	36	Gyp & Gray Lime
226	232	6	Anhydrite & Red Rock
232	291	59	Anhydrite & Water 254-258
291	300	9	Anhydrite
300	320	20	Red Sand
320	373	53	Anhydrite & Gyp
373	405	32	Gyp & Red Sand
405	438	33	Gyp & Red Rock
438	470	32	Anhydrite
470	506	36	Anhydrite
506	520	14	Red Sand & Gyp
520	565	45	Anhydrite
565	587	22	Shale & Red Sand
587	600	13	Red Sand

FORMATION RECORD—Continued

16-48094-1

13 782	50 SHEETS, BLUE	5 SQUARE
42 381	100 SHEETS, PINK	5 SQUARE
42 382	100 SHEETS, PINK	5 SQUARE
42 389	200 SHEETS, PINK	5 SQUARE
42 392	200 SHEETS, PINK	5 SQUARE
42 393	200 SHEETS, PINK	5 SQUARE



National® Brand

55x cmt  
PIUG @ 580'

5 SX CMT P1UG  
@ 1250'

155x CMT @ 1UG @ 1300'

TD @ 2505'

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

U.S. Land Office LAS CRUCES

LEASE  
Serial Number 026874 - A  
Lease or Permit \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL _____	SUBSEQUENT RECORD OF SHOOTING _____
NOTICE OF INTENTION TO CHANGE PLANS _____	RECORD OF PERFORATING CASING _____
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF _____	NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING _____
REPORT ON RESULT OF TEST OF WATER SHUT-OFF _____	NOTICE OF INTENTION TO ABANDON WELL _____
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL _____	SUBSEQUENT REPORT OF ABANDONMENT _____
NOTICE OF INTENTION TO SHOOT _____	SUPPLEMENTARY WELL HISTORY _____

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

12/8/333., 192

Following is a notice of intention to do work on land under lease described as follows:

New Mexico Eddy "Compton"  
(State or Territory) (County or Subdivision) (Field)  
Well No. 4 SE-5 135 27E N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

The well is located 290 ft. N of S line and 360 ft. E of T line of sec. 5

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

TD 2505

Well was cemented at 2000 Ft. then filled with mud to 1300 Ft. and cement bridge was made with 10 sacks of cement and did not hold, so was cemented again with 15 sacks of cement, this time was a good job. Then the 6-5/8 casing was raised to 1350 and a bridge was made at that point and again cemented with 5 sacks of cement, then casing was pulled from the well and hole filled with mud to 580 Ft. and five sacks of cement was placed at that depth. Filled to surface with mud and a cement (Regulation) marker cemented in ground and allowed to raise 5 Ft. from the surface.

Inspected by T. G. Taylor on December 13, 1933.

Approved December 13, 1933.

(Date)

Supervisor Oil & Gas Operations

By T. G. Taylor.

Title By T. G. Taylor, Engineer

GEOLOGICAL SURVEY

Address Roswell, New Mexico.

Company B.T. Compton Oil Co.

By B.T. Compton

Title President

Address Ft. Stanton, N.M.

NOTE.—Reports on this form to be submitted in triplicate to the Supervisor for approval.

U.S. GOVERNMENT PRINTING OFFICE 6-7033

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSerial Number 026874Lease or Permit LEASE

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT RECORD OF SHOOTING.....
NOTICE OF INTENTION TO CHANGE PLANS.....	RECORD OF PERFORATING CASING.....
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF.....	NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING.....
REPORT ON RESULT OF TEST OF WATER SHUT-OFF.....	NOTICE OF INTENTION TO ABANDON WELL.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL..... <input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO SHOOT.....	SUPPLEMENTARY WELL HISTORY.....

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

NOVEMBER 30, 1922Following is a notice of intention to do work on land under lease described as follows:

NEW MEXICO EDDY COMPTON  
(State or Territory) (County or Subdivision) (Field)

Well No. 4 SESE 5 18 S. 27 E. N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

The well is located 990 ft. N of S line and 660 ft. E of E line of sec. 5

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

## DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

Well was drilled to 1277' and bottom water was encountered.  
Expect to drill 50' more hole then under the 6-5/8 casing,  
to shut off water, then drill on to production at about 1800'  
to 2100'

Approved November 3, 1922 See conditions on reverse side.Title Deputy Supervisor  
GEOLOGICAL SURVEYAddress Roswell, N. Mex.Company R. D. Compton Oil Co. Inc.By R. D. ComptonTitle President.Address Artesia, New Mexico.

NOTE.—Reports on this form to be submitted in triplicate to the Supervisor for approval.

GOVERNMENT PRINTING OFFICE 6-7653



DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSerial Number 026874-a  
Lease or Permit LEASE

MAR 7 1932

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	<input checked="" type="checkbox"/>	SUBSEQUENT RECORD OF SHOOTING.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		RECORD OF PERFORATING CASING.....	
NOTICE OF DATE FOR TEST OF WATER SHUT-OFF.....		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING.....	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF.....		NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO SHOOT.....		SUPPLEMENTARY WELL HISTORY.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

MARCH 7, 1932

Following is a notice of intention to do work on land under lease described as follows:

NEW MEXICO EDDY "COMPTON" POOL.  
(State or Territory) (County or Subdivision) (Field)  
Well No. 4 5 18S, 27E. N.M.P.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

The well is located 990 ft. N of S line and 660 ft. E of E line of sec. 5.

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

## DETAILS OF PLAN OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work.)

WELL WAS DRILLED FOR A WATER WELL TO BELOW THE 2nd. ARTESIAN WATER SAND.

6-5/8 CASING SET AND MUDDED AT DEEPth OF 1210' HOLE DRY.

WANT TO DRILL ON TO PRODUCTION AT ABOUT 1260'

IF NO COMMERCIAL PRODUCTION ATT THAT DEEPth, WILL GET NEXT PAY AT 2000' TO 2290'.

LEASE WAS MAILED OUT FROM WASHINGTON FEBRUARY 26-1932 AND RECEIVED BY ME ON MARCH 5th. 1932.

Approved March 7, 1932J. W. Steele  
(Signature)Title Deputy Supervisor  
GEOLOGICAL SURVEYAddress Roswell, New MexicoCompany R. D. COMPTON OIL CO. INC.By R. D. ComptonTitle PRESIDENT

Address \_\_\_\_\_

NOTE.—Reports on this form to be submitted in triplicate to the Supervisor for approval.

GEOLOGICAL SURVEY FORM 9-381a 6-7055

**NEW MEXICO SCHOOL OF MINES**  
**STATE BUREAU OF MINES AND MINERAL RESOURCES**

SOCORRO, NEW MEXICO

**NEW MEXICO WELL LOG DIVISION**

**Casing Record:**

10" - 602  
 8" - 1081  
 5 5/8" - 1287

I. P. P. & A.  
 32 Bbls. of fluid,  
 40% water

New Mexico  
 Eddy County  
 R. D. Compton (Old Well Deepened.)  
 Brainard Well #4  
 Sec. 5 T.18S R.27E  
 990' S-L & 660' E-L,  
 Elevation: 3492 L-S  
 Commenced: 7-27-31  
 Completed: 12-4-33

Formation	Bottom	Formation	Bottom
Soil	7	Gypsum	800
White gravel	12	Gypsum and brown shale	835
Red beds	45	Gypsum	870
Blue shale	50	Gypsum and red beds	900
Red beds	80	Gray sand 1 bailer water per	
Gypsum	130	hours 900-23	923
Red beds	135	Gray brown shale increase water	930
Brown shale	150	Gypsum and brown shale	940
Gypsum	195	Sandy blue shale	951
Shale little water	200	Sandy brown shale	990
Gypsum	220	Red sand	1015
Gypsum and blue shale	300	Limestone	1020
Gypsum	325	White shale (2 bailers artesian	
Blue shale	340	water)	1034
Brown shale and gypsum	350	Gray lime	1060
Brown shale	375	Brown lime	1065
Gypsum	415	Gray lime hard	1070
Gypsum	425	Gray lime	1163
Brown shale	435	Dry sand	1174
Gypsum	450	Sandy brown lime	1182
Gypsum and blue shale	465	Gray lime sandy	1217
Brown shale	470	Hard lime	1220
Gypsum and brown shale	496	Gray lime	1260
Gypsum	505	Hard gray lime	1270
Red beds	515	Dry sand	1273
Gypsum and red beds	590	Gray lime	1274
Hard gypsum	610	Oil sand	1277
Gypsum	615	Sandy lime water 77-78	
Red beds	635	Plugged back 1277 with 75	
Gypsum	690	pounds lead wool.	1278
Red sand	705	Blank -- no record	1278-1300
Gypsum and brown shale	725	White lime	1300-1365
Gray gypsum and shale	755	Gray lime	1368
Gray shale	765	Brown lime	1372
Gray shale	773	Gray lime	1380
Gypsum	790	White lime	1435
Brown shale	793	White lime shells	1446

**NEW MEXICO SCHOOL OF MINES**  
**STATE BUREAU OF MINES AND MINERAL RESOURCES**  
 SOCORRO, NEW MEXICO

**NEW MEXICO WELL LOG DIVISION**

- 2 -

R. D. Compton (Old Well Deepened.) / Brainard #4

Formation	Bottom	Formation	Bottom
White lime	1460	Sharp brown lime	2110
Gray lime	1480	Gray lime	2145
Brown lime shells 1503-05	1505	Brown lime, dark	2197
White lime	1512	Gray lime, dark	2238
White lime	1527	Brown lime, light	2293
Gray lime, 39 white, 54 gray		Brown lime, dark	2354
lime, 62 gray and white lime,		Brown and gray lime	2362
72 gray lime, 94 brown lime,		Brown lime	2398
little gas, 1594-99	1537	Gray lime, dark	2464
Gray lime	1599	Brown lime, dark	2498
Brown lime show of oil 1605	1618	Gray lime	T. D. 2505
Dark brown lime	1623		
Brown lime	1635		
Hard brown lime	1638		
Brown and gray lime	1650		
Brown lime	1700		
Dark brown lime short shells			
1710	1715		
Brown lime	1738		
Sandy brown lime	1752		
Brown lime	1803		
Brown sandy lime	1885		
Gray lime	1892		
Brown lime	1908		
Brown lime, little sand, show			
oil 1908	1912		
Brown lime increase oil			
1912-21	1932		
Gray lime	1948		
Brown lime	1951		
Gray lime	1973		
Light gray lime	1981		
Gray lime, 2 bailer salt water			
per hour	2011		
Yellow lime	2030		
Brown lime	2035		
Brown gray lime	2042		
Brown lime	2054		
Gray lime	2079		
Brown lime	2064		
Light brown lime	2076		
Brown lime	2090		
Brown sandy lime	2091		
Gray sandy lime	2101		
Brown lime	2104		

petroROM Well Report  
Copyright 1996 by Petroleum Information Corporation

----- General Information -----

State	: NMEX	Final Status	: D&AW
County	: EDDY	Total Depth	: 2500
Field	:	Spud Date YYYYMMDD:	19330215
Operator Name	: COMPTON R D	Comp Date YYYYMMDD:	19330629
Well Number	: 4	Hole Direction	: VERTICAL
Lease Name	: BRAINARD		
API Number	: 30015007830001		
Section or Equiv	: SEC 5	Init Lahee Class	: D D
Township	: S018	Final Lahee Class:	D
Range	: E027	Permit Number	:
Spot	:	Elevation	: 00000 ()
Base Meridian	: NEW MEXICO (21)		
Geologic Province:	PERMIAN BASIN		
Formation at TD	:		
Oldest Age Pen	:		

Producing Formation:

----- Additional Location Information -----

Footage Location : 990FSL 660FEL SEC LN  
Location Narrative:

Latitude	: 32.77213	Latitude (Bot)	:
Longitude	: 104.29338	Longitude (Bot)	:

Latitude & Longitude Source: USGS

----- Formation Tests -----

Test Type Form	Top	Base	Hydrostatic		Flowing		Shut In		Open Cush	
			Init.	Final	Init.	Final	Init.	Final	Time	Amt
0001 DST	2006	2011							1H	

Pipe Recovery

Test Amount	Unit	Desc	Amount	Unit	Desc	Amount	Unit	Desc
0001		W						

----- Actual Bottom Hole From Surface Location -----

Meas	True Vert	Closure	N/S	E/W	State	County
Depth	Depth	Ft Deg Min	Footage		Code	Code

----- Actual Bottom Hole Narrative -----

----- Drilling Narrative -----

Date	Remarks
------	---------

**ATTACHMENT VI**  
**Well Information and Downhole Schematics**  
**Plugged and Abandoned Wells within Area of Review**  
**Devon Energy Corporation**  
**West Red Lake Waterflood Project**

**Well Name:** Brainard #1

**Location:** Section 5 -18S-27E (330' FSL + 1650' FEL)

**Operator (at time of plugging):** AW Adkinson

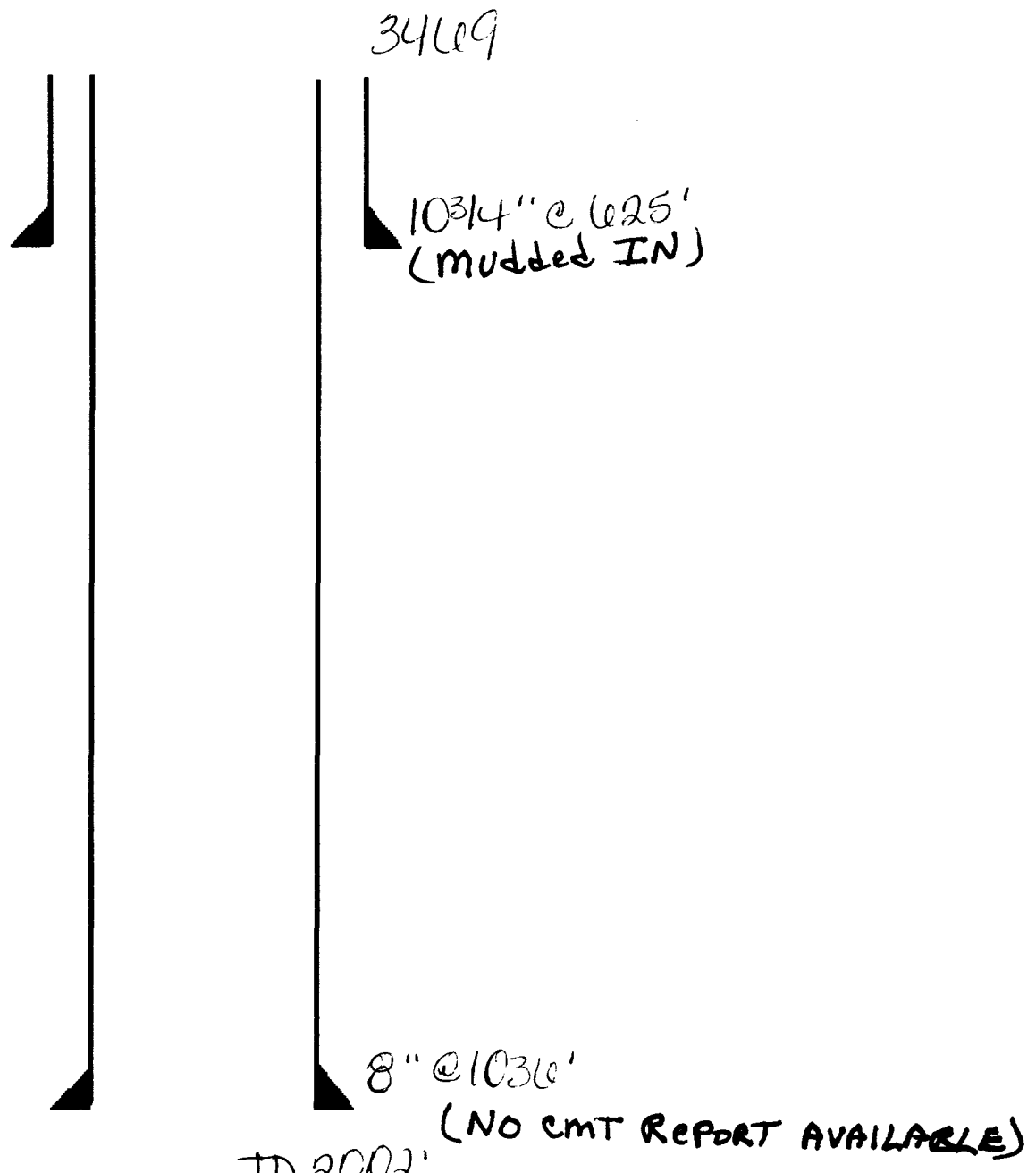
**Date Plugged:** 6/32

**Information Obtained From:** Scout Report (nm), PI CD Rom

**Comments:**

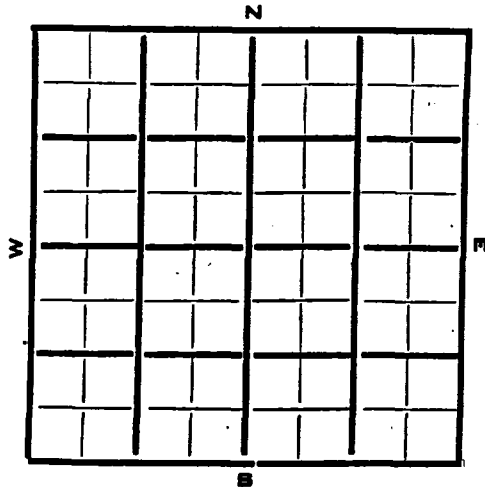
Spud 9-27-32. Csg set @ 625' and 1036'  
NO cmt volumes given. NO plugging info  
available. See Attached. (Drilled + Abandoned  
well) NO P&A REPORT AVAILABLE

**Downhole Schematic:**



30-015-00777

# SCOUT REPORT NEW MEXICO OIL CONSERVATION COMMISSION



Company A. W. Adkinson *Adkinson*  
 Farm Name Brainard Well No. 1  
 Land Classification Government  
 Sec. 5 Twp. 18 Range 27 County Eddy  
 Feet from Line: N. 330 S. 1650 E. W  
 Elevation 3469 Method Cable  
 Contractor Scout  
 Spudded 9-27-32 Completed            Initial Production             
 Bond Status           

Amount Casing and Cementing Record			
SIZE	FEET	INCHES	MAX CEMENT
10 3/4	625		Mud
8	1036		Set

## Tubing Record

Packer

## ACID RECORD

Gals.

Top Pay

TD

TA

TX

BX

TRS

TY

TBL

TWT

## SHOOTING RECORD

No. of Quarts

From

To

No. of Quarts

From

To

S/

S/

S/

S/

S/

S/

DATE		DATE	
7-19-38	Location	11-21	T.D. 979 RB
7-26	"		S.D. Orders
8-2	"	11-29	S D Orders 979 RB
8-9	"	12-13	Ø 1042 L
8-16	"		Ø 1238 S
8-23	"		S/o 1238
8-30	"	12-20	Tstg pmps. S D 1242
9-7	"	12-28	1250 L tstg - pmpd 5 BO &
9-12	"		IB Shut wtr may deepen
9-19			S D O
9-26		1-4-39	
10-4		1-10	
10-11	Ø 240 Cal	1-17	
10-18	No report	1-24	Ø 1254 L
10-25	T.D. 625 RB	1-31	Ø 1366 L
	S D Orders	2-7	T.D. 1370 L
11-1			S D Orders
11-8		2-14	Ø 1366 A & L
11-15	T.D. 922 R & G	2-21	Ø 1400 L
	8" Ø 906	2-28	Ø 1438 A & L
	Prep to Underream		

# LOG

[illegible]

petroROM Well Report  
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----- General Information -----

State	: NMEX	Final Status	: D&A-OG
County	: EDDY	Total Depth	: 2002
Field	: ARTESIA	Spud Date YYYYMMDD:	19380927
Operator Name	: ADKISSON A W	Comp Date YYYYMMDD:	19390621
Well Number	: 1	Hole Direction	: VERTICAL
Lease Name	: BRAINARD		
API Number	: 30015007770000		
Section or Equiv	: SEC 5	Init Lahee Class	: D
Township	: S018	Final Lahee Class:	D
Range	: E027	Permit Number	:
Spot	:	Elevation	: 00000 ()
Base Meridian	: NEW MEXICO (21)		
Geologic Province:	PERMIAN BASIN		
Formation at TD	:		
Oldest Age Pen	:		

Producing Formation:

----- Additional Location Information -----

Footage Location : 330FSL 1650FEL SEC LN  
Location Narrative:

Latitude	: 32.77034	Latitude (Bot)	:
Longitude	: 104.29657	Longitude (Bot)	:

Latitude & Longitude Source: USGS

----- Production Tests -----

Test Form	Top	Base	Oil Rate	Gas Rate	Wtr Rate	FTP	BHP	Ck	M	BHT
0001	1242	1242	4 BO		5 BW				P	
0002	1249	1250	5 BO		1 BW				P	
0003	2002	2002			1 UW				B	

----- Formation Tests -----

Test Type Form	Top	Base	Hydrostatic		Flowing		Shut In		Open Time	Cush Amt
			Init.	Final	Init.	Final	Init.	Final		
0001 DST	1239	1240								
0002 DST	1248	1248							24H	
0003 DST	1248	1248								

Pipe Recovery

Test	Amount	Unit	Desc	Amount	Unit	Desc	Amount	Unit	Desc
0001	1	BBL	ZW						
0002	1	BBL	ZW						
0003	1	BBL	ZW						



----- Casing Data -----

Size	Depth	Cement
10 3/4	625	
8 1/4	1036	

----- Actual Bottom Hole From Surface Location -----

Meas Depth	True Vert Depth	Closure Ft Deg Min	N/S Footage	E/W	State Code	County Code
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----- Actual Bottom Hole Narrative -----

----- Drilling Narrative -----

Date	Remarks
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**ATTACHMENT VI**  
**Well Information and Downhole Schematics**  
**Plugged and Abandoned Wells within Area of Review**  
**Devon Energy Corporation**  
**West Red Lake Waterflood Project**

**Well Name:** Brainard #4

**Location:** Section 5 -18S-27E (660' FSL + 330' FEL)

**Operator (at time of plugging):** RD Compton

**Date Plugged:** 7/34

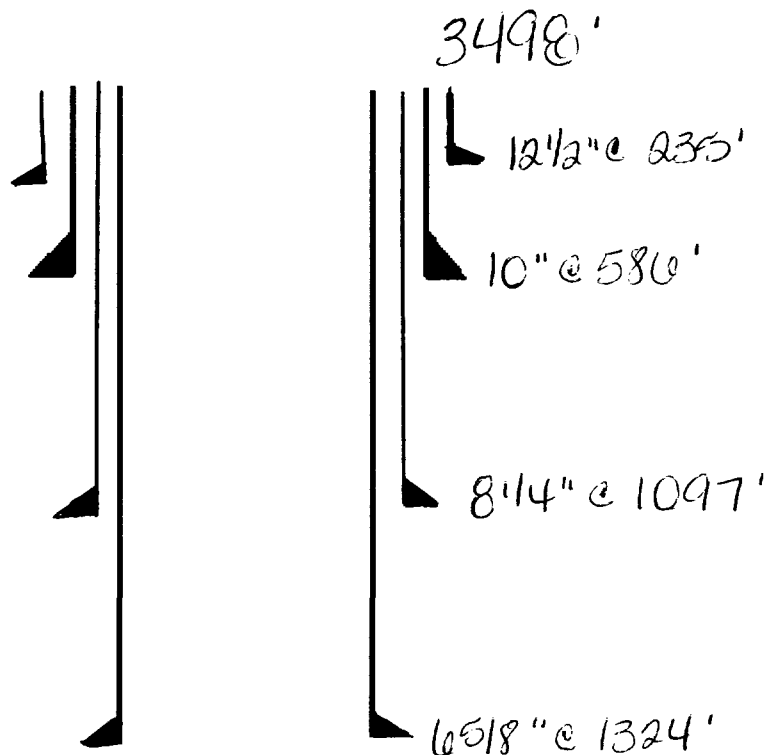
**Information Obtained From:** School of mines - well log Div, PI Report

**Comments:**

Spud 1-23-34. Well was drilled and abandoned.  
No plugging record available. (See attached  
reports)

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**Downhole Schematic:**



## NEW MEXICO SCHOOL OF MINES

## STATE BUREAU OF MINES AND MINERAL RESOURCES

SOCORRO, NEW MEXICO

## NEW MEXICO WELL LOG DIVISION

COUNTY Eddy

FIELD

COMPANY R. D. Compton

LEASE Brainerd

No. 6 Well

LOCATION (1/4) E SE SE

SEC. 5 T. 18S. R. 27E

660 feet from south line and

330 feet from east line of Section

## CASING RECORD

Diam., in.	Bottom
12 1/4"	235'
10"	586'
8 1/4"	1097'
6-5/8"	1324'

ELEVATION 3498  
INITIAL DAILY PRODUCTION:

FEET

bbls. Oil

cu. ft. Gas

bbls. Oil

cu. ft. Gas

COMMENCED

COMPLETED

ABANDONED

REMARKS: D &amp; A

FORMATION	BOTTOM, FEET	FORMATION	BOTTOM, FEET
Red bed	10	Blue shale	350
Hard white gyp	15	Grey gyp	360
Red bed	25	Red bed	365
White gyp	30	Grey gyp	375
Red bed	35	Hard grey gyp	380
White gyp	40	White gyp, SO. 85-90'	385
Red bed	45	Grey gyp and grey sandy shale	390
White gyp	50		
Red bed	55	White and grey gyp, soft	395
White gyp	65	White gyp	405
Red bed	70	Grey gyp	410
White gyp	95	Brown lime, gas 15-20'	415
Light grey gyp	100	Grey lime	418
Red bed	105	Grey gyp	430
Hard white gyp	110	Blue shale	434
Grey lime	115	White gyp, soft	440
Grey gyp	125	Red bed	443
Hard grey lime	130	Grey gyp	458
White gyp	140	Brown sandy lime	465
Red bed	145	Brown lime	470
White gyp	157	Grey gyp	475
Gyp and lime	160	Red bed and white gyp	480
White gyp, hard	170	Red bed, grey and white gyp	485
White gyp and red bed	175	Grey gyp	498
White gyp, wtr. 160-80'	190	Grey sandy lime	500
Gyp and red bed	195	Blue shale, S.O.	502
White and grey gyp	200	Grey and white gyp	508
Red bed	203	Red bed, wtr.	526
Grey gyp and wtr.	210	Grey and white gyp	539
Grey gyp	220	Grey and white gyp	
Gyp and sand, sul. wtr.	225	and red bed	543
Gyp mud	230	Red bed	558
Grey gyp	252	Red bed and blue shale	562
White and grey gyp	259	Gyp and blue shale	565
Grey gyp	270	Gyp, red bed and shale	570
White gyp, soft	275	Grey gyp	578
Brown gyp	280	Grey gyp and blue shale	580
Grey gyp	295	Grey gyp	582
Gyp and shale	305	Red bed	584
White and grey gyp	327	Grey and white gyp	586
Dark gyp	332	White gyp	588
Grey gyp	340	Red bed and blue shale	590
White gyp	345	White gyp	610

## STATE BUREAU OF MINES AND MINERAL RESOURCES

COUNTY Eddy

SOCORRO, NEW MEXICO

FIELD

## NEW MEXICO WELL LOG DIVISION

COMPANY R. D. Compton

LEASE Brainerd

No. 6 Well

LOCATION (%)

SEC. 5 T. 18S R. 27E

feet from

line and

feet from

line of Section

## CASING RECORD

Diam., in. Bottom

## ELEVATION

## FEET

## INITIAL DAILY PRODUCTION:

Open

bbls. Oil

COMMENCED

Open

cu. ft. Gas

COMPLETED

Tbg.

bbls. Oil

ABANDONED

Tbg.

cu. ft. Gas

REMARKS:

FORMATION	BOTTOM, FEET	FORMATION	BOTTOM, FEET
Red bed	612	Gyp	968
Grey gyp	627	White sand and red sandy gyp	974
Red bed	630	Pink sandy gyp	980
Grey and pink gyp	635	Red sand	987
Red bed	640	Red sand and gyp	995
Brown sand, white gyp and blue shale	647	Red sand	1060
Red rock	650	Grey lime	1075
Brown sand and grey gyp	665	Brown shale	1085
White and dark grey lime	672	Pink shale	1095
Grey gyp and red bed	680	Brown lime	1097
Brown gyp	685	Grey lime	1123
Blue sandy gyp	690	Brown lime	1125
Blue sand, 1 BWPH 690-95'	695	Pink and grey lime	1135
Red bed	700	Grey lime	1158
Red sand	708	Pink and grey lime	1169
Blue sandy shale and red sand	713	Grey lime	1181
Red sand	718	Lime	1187
Pink gyp, inc. wtr. 720-25'	725	White sand and grey lime	1193
Pink gyp and red sand	730	White sand	1199
Grey, white, brown and pink gyp	755	Grey sandy lime	1205
Dark brown gyp and blue shale	761	Brown sandy lime	1210
Grey gyp, inc. wtr.	767	Brown lime	1222
Red bed and blue shale	770	Grey lime	1234
Grey and brown gyp	775	Sandy lime	1251
Brown gyp	780	Grey sandy lime, skip to 1333'	1255
Grey and pink gyp	787	White lime	1333
Grey lime	792	Grey lime	1351
Brown and grey gyp	795	Grey and pink lime	1369
Grey and pink gyp	800	White lime	1378
Brown gyp	805	Light brown lime	1381
Grey gyp	810	White lime, hard	1388
Grey and pink gyp	815	Light grey lime	1393
Grey gyp	832	White lime	1402
Grey and pink gyp	839	Grey lime	1416
Gyp and red bed	846	White lime, hard	1418
Gyp	889	Grey lime	1482
Gyp and red shale	896	Brown lime	1485
Gyp	926	Grey lime	1490
Blue sandy shale	932	Grey and brown lime	1496
Water sand	937	Grey lime	1510
White sand	968	White lime	1512
		Grey lime	1584

## STATE BUREAU OF MINES AND MINERAL RESOURCES

SOCORRO, NEW MEXICO

## NEW MEXICO WELL LOG DIVISION

COUNTY

Eddy

FIELD

COMPANY R. D. Compton

LEASE Brainerd

No. 6 Well

LOCATION (%)

SEC. 5

T. 18S R. 27E

feet from

line and

feet from

line of Section

## CASING RECORD

## ELEVATION

## FEET

Diam., in. Bottom

## INITIAL DAILY PRODUCTION

Open bbls. Oil

Open cu. ft. Gas

Test bbls. Oil

Test cu. ft. Gas

COMMENCED

COMPLETED

ABANDONED

REMARKS:

FORMATION BOTTOM, FEET FORMATION BOTTOM, FEET

Dark lime 1596

Grey and brown lime, ss. 1600

Grey and brown lime 1603

Dark grey lime, rainbow oil 1630

Dark grey lime, hard 1633

Brown lime 1668

Brown lime, very hard 1671

Dark grey lime 1708

Brown lime 1708

Black lime 1722

Brown lime 1727

Dark lime 1744

Brown sandy lime 1820

Dark grey lime, Gas 1825

1820-251 &amp; M 1850

Soft brown lime 1851

Medium brown lime 1864

Soft brown lime 1889

Hard brown lime 1919

Dark grey lime, soft 1931

Soft grey lime, ss. 1931

TD. 1931

Skip 1265-1333

Hard grey lime 1265

White sand 1267

Pink and grey lime 1275

Oil sand 1280

Brown lime 1281

White sandy lime 1285

Grey and white lime 1330

petroROM Well Report  
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----- General Information -----

State	: NMEX	Final Status	: D&A-OG
County	: EDDY	Total Depth	: 1931
Field	: ARTESIA	Spud Date YYYYMMDD:	19340123
Operator Name	: COMPTON R D	Comp Date YYYYMMDD:	19340710
Well Number	: 6	Hole Direction	: VERTICAL
Lease Name	: BRAINARD-FEDERAL A		
API Number	: 30015007840000		
Section or Equiv	: SEC 5	Init Lahee Class	: D
Township	: S018	Final Lahee Class:	D
Range	: E027	Permit Number	:
Spot	:	Elevation	: 00000 ()
Base Meridian	: NEW MEXICO (21)		
Geologic Province:	PERMIAN BASIN		
Formation at TD	:		
Oldest Age Pen	:		

Producing Formation:

----- Additional Location Information -----

Footage Location : 660FSL 330FEL SEC LN  
Location Narrative:

Latitude	: 32.77122	Latitude (Bot)	:
Longitude	: 104.29229	Longitude (Bot)	:

Latitude & Longitude Source: USGS

----- Formation Tests -----

Test	Type	Form	Top	Hydrostatic		Flowing		Shut In		Open Cush	
				Base	Init. Final	Init. Final	Init. Final	Init. Final	Time	Amt	
0001	DST		1278	1280							
0002	DST		1820	1825							

				Pipe Recovery							
Test	Amount	Unit	Desc	Amount	Unit	Desc		Amount	Unit	Desc	
0001		1 BBL	O		20 BBL	ZW					

				Material to Surface							
Test	Amount	Unit	Type	Time	Amount	Unit	Type	Time	Amount	Unit	Type
0002		250	MCFD GAS								

----- Casing Data -----

Size	Depth	Cement
12 1/2	235	
10	586	
8 1/4	1697	
6 5/8	1324	

----- Actual Bottom Hole From Surface Location -----

Meas Depth	True Vert Depth	Closure Ft Deg Min	N/S E/W Footage	State Code	County Code
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----- Actual Bottom Hole Narrative -----

----- Drilling Narrative -----

Date	Remarks
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## Attachment VI

## Pro-Kem, Inc.

## WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Devon Energy  
 Lease : West Red Lake Unit  
 Well No. : Free-Water Knock-Out  
 Salesman:

Sample Loc. :  
 Formation : GRAYBURG - SAN ANDRES  
 Date Analyzed: 17-June-1996

ANALYSIS

1. pH 6.820  
 2. Specific Gravity 60/60 F. 1.091  
 3. CaCO<sub>3</sub> Saturation Index @ 80 F. +0.731  
   @ 140 F. +1.611

Dissolved Gasses

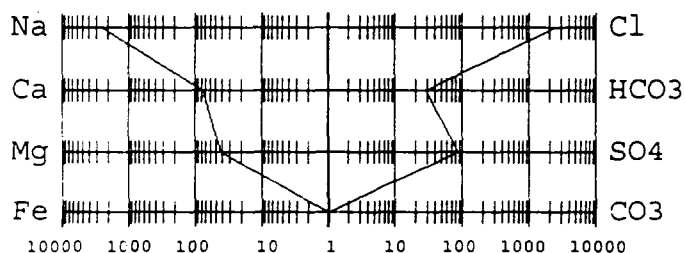
	MG/L	EQ. WT.	*MEQ/L
4. Hydrogen Sulfide	275		
5. Carbon Dioxide	200		
6. Dissolved Oxygen	Not Determined		

Cations

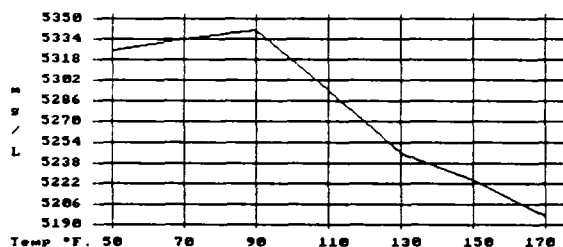
7. Calcium (Ca++)	1,503	/ 20.1 =	74.78
8. Magnesium (Mg++)	486	/ 12.2 =	39.84
9. Sodium (Na+) (Calculated)	55,071	/ 23.0 =	2,394.39
10. Barium (Ba++)	Not Determined		

Anions

11. Hydroxyl (OH-)	0	/ 17.0 =	0.00
12. Carbonate (CO <sub>3</sub> =)	0	/ 30.0 =	0.00
13. Bicarbonate (HCO <sub>3</sub> -)	1,713	/ 61.1 =	28.04
14. Sulfate (SO <sub>4</sub> <sup>2-</sup> )	4,100	/ 48.8 =	84.02
15. Chloride (Cl <sup>-</sup> )	84,981	/ 35.5 =	2,393.83
16. Total Dissolved Solids	147,854		
17. Total Iron (Fe)	2	/ 18.2 =	0.11
18. Total Hardness As CaCO <sub>3</sub>	5,755		
19. Resistivity @ 75 F. (Calculated)	0.042 /cm.		

LOGARITHMIC WATER PATTERN  
\*meq/L.

## Calcium Sulfate Solubility Profile



## PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L =	mg/L.
Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	28.04	2,272
CaSO <sub>4</sub>	68.07	46.74	3,182
CaCl <sub>2</sub>	55.50	0.00	0
Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
MgSO <sub>4</sub>	60.19	37.28	2,244
MgCl <sub>2</sub>	47.62	2.56	122
NaHCO <sub>3</sub>	84.00	0.00	0
NaSO <sub>4</sub>	71.03	0.00	0
NaCl	58.46	2,391.27	139,794

\*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.  
 Corrosivity is increased by the content of mineral salts, and the presence  
 of H<sub>2</sub>S, CO<sub>2</sub> in solution.



**Affidavit of Publication**

State of New Mexico,  
County of Eddy, ss.

Amy McKay,  
being first duly sworn, on oath says:

That she is Business Manager  
of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

November 19, 1996  
\_\_\_\_\_, 19\_\_\_\_  
\_\_\_\_\_, 19\_\_\_\_  
\_\_\_\_\_, 19\_\_\_\_  
\_\_\_\_\_, 19\_\_\_\_  
\_\_\_\_\_, 19\_\_\_\_

That the cost of publication is \$ 39.71,  
and that payment thereof has been made and will  
be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this

22nd day of November, 1996

Donna Curnap

My commission expires 08/01/98

Notary Public

November 19, 1996

**Legal Advertisement**

Notice is hereby given that Devon Energy Corporation (Nevada) is applying to the New Mexico Oil Conservation to convert the following wells to water injection wells:

West Red Lake #26  
2340' FSL & 400' FEL "I"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #36  
1630' FNL & 330' FEL "H"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #47  
2310' FNL & 1510' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #63  
1500' FNL & 850' FEL "F"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #71  
710' FNL & 1650' FEL "B"  
Section 8-18S-27E  
Eddy County, NM

West Red Lake #74  
1930' FNL & 2600' FEL "G"  
Section 8-18S-27E  
Eddy County, NM

The intended purpose of this well is to inject produced waters into the Grayburg/San Andres formation to enhance oil production through secondary recovery. Maximum injection rates of 1500 bwpd and a maximum pressure of 1000 psig are expected.

Interested parties must file objections or requests for hearing within 15 days to the following commission:

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

Ernie Buttross  
District Engineer  
Devon Energy Corporation  
(Nevada)  
20 North Broadway,  
Suite 1500  
Oklahoma City, OK 73102  
(405) 552-4509