

XERIC OIL & GAS COMPANY
POB 51311
MIDLAND, TX 79710
915/683-3171

3113 ON
1 8 42

May 22, 1991

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Application for Water Injection Well
Mesa Queen Unit
Lea County, New Mexico

Gentlemen:

Xeric Oil & Gas Co. hereby makes application for a pressure maintenance well to convert the Mesa Queen No. 14 well situated 2310 feet from the south line and 660 feet from the west line (unit letter "L") of Section 16, T-16-S, R-32-E, Lea County, New Mexico from an oil producer to a disposal well. If approved the well will be used for injection of water produced from the Queen formation at a depth interval from about 3400 feet to 3450 feet. As shown on the attached diagramatic sketch, the injection of produced water will be made into the Queen formation in the disposal well through 2 3/8ths cement lined tubing, using a Baker, Lok-Set Packer set at 3350', at a depth interval from about 3400 to 3450 feet. Water produced from the Queen formations is salty, it is estimated that from 100 to 450 barrels of water per day will be injected into the well. The Mesa Queen No. 14 well made small quantities of the same type water from the Queen formation while it was operated as an oil producer.

The Queen formation is of Permian age and is older than the triassic formation. The next higher oil & gas zone is the Yates found at a depth of 2530 feet with the next lower zone being the Grayberg at a depth of 4,000+ feet. Applicant has no information indicating that a fresh water well exists within one mile of the proposed injection well. The water produced from the Queen formation is highly salty and is unfit for domestic stock, irrigation or other general use. The applicant therefore asks for administrative approval of this application without notice and hearing as an exception to Rule 701-A.

Copies of this application have been sent to ~~all offset~~ to the surface owner.

Enclosed are three copies of this application, form C-108, diagramatic sketch, and a plat of the surrounding area. Copies of the log of the Mesa Queen No. 14 well have been previously submitted to the commission.

Respectfully submitted by,

XERIC OIL & GAS COMPANY



By: Randall L. Capps

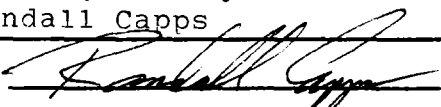
RLC/mac
encls.

Copy sent to:

SURFACE OWNER

State of New Mexico
Commissioner of Public Lands
POB 1148
Santa Fe, NM 87501

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☒ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. Operator: Xeric Oil & Gas Company
Address: P.O. Box 51311, Midland, TX 79710
Contact party: Randall Capps Phone: 915-683-3171
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ Yes ☐ No
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate 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 source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Randall Capps Title Owner
Signature:  Date: 5-22-91
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. The Mesa Queen Unit has been an active waterflood unit
and this information has been previously submitted to the Division
DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division

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, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

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

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

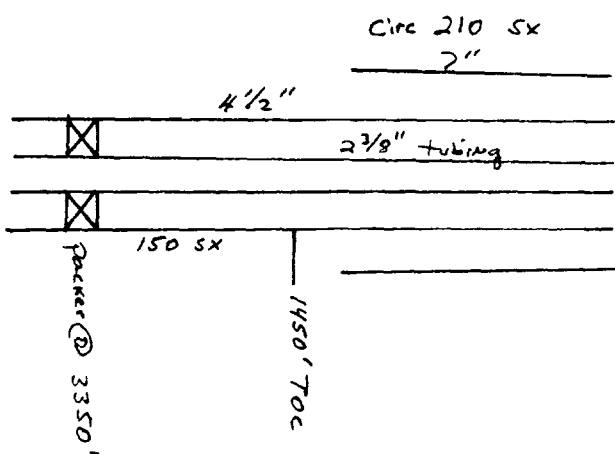
Xeric Oil & Gas Company

Mesa Queen Unit

1CA5L

14
WELL NO. 2310 FSL & 660 FWL

1001AC1 LOCATION

16
SECTION16-S
TOWNSHIP32-E
RANGESchematicTabular DataSurface Casing

Size 7 " Cemented with 210 sx.
 TOC surface feet determined by circulated
 Hole size 11 "

Intermediate Casing

Size " Cemented with sx.
 TOC feet determined by
 Hole size

Long string

Size 4 1/2 " Cemented with 150 sx.
 TOC 1450 feet determined by circulated
 Hole size 6 3/4 "
 Total depth 3490 '

Injection interval

3400 ' feet to 3450 ' feet
 (perforated or open-hole, indicate which)

perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic set in a (material)
Baker AD-1 packer at 3350 feet
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

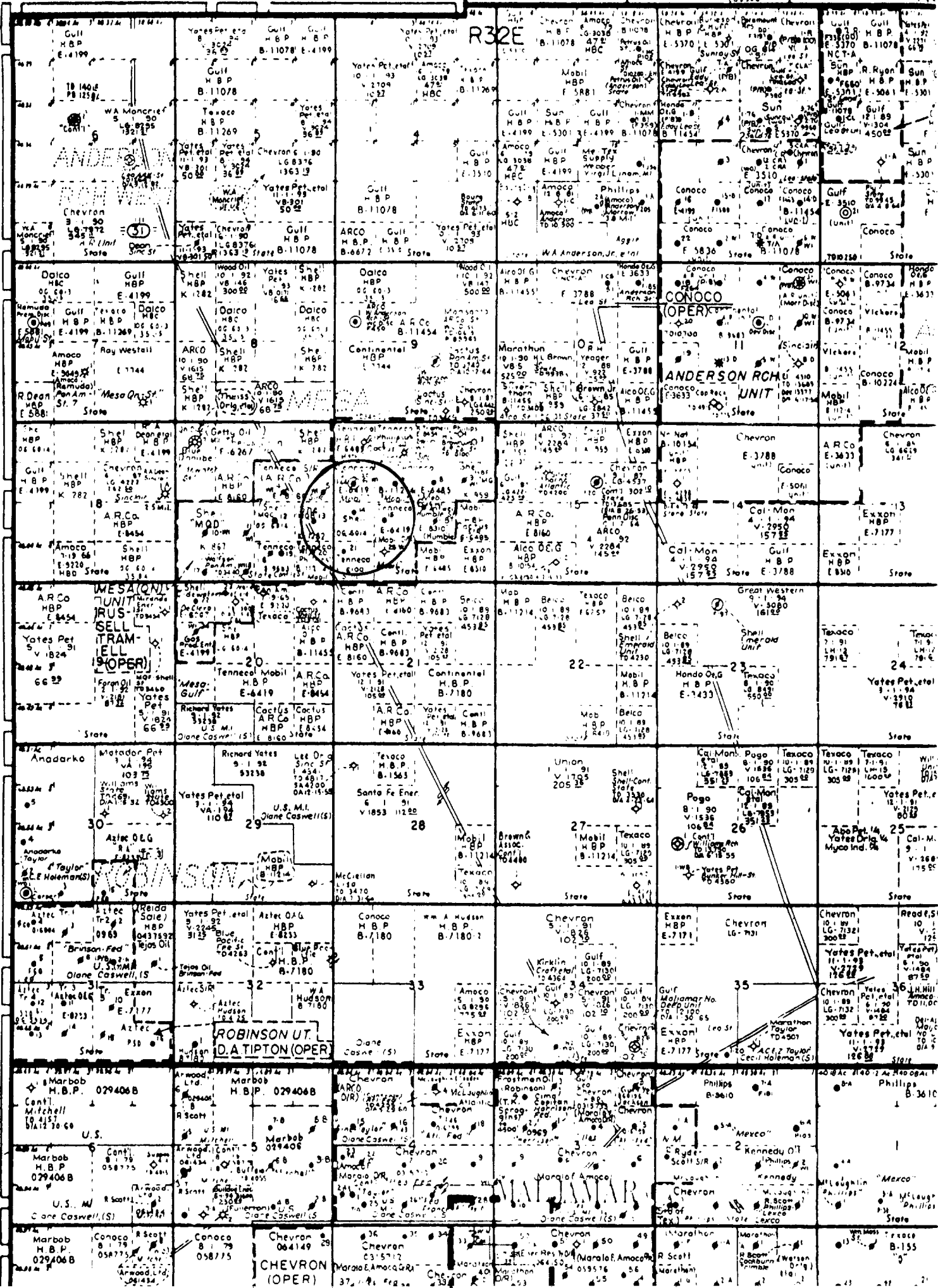
1. Name of the injection formation Queen
2. Name of Field or Pool (if applicable) Mesa Queen
3. Is this a new well drilled for injection? ☒ Yes ☐ No
 If no, for what purpose was the well originally drilled? producer from Queen

formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None, to our knowledge

T
16
32055



XERIC OIL & GAS COMAPNY
MESA QUEEN No. 14
2310' FSL & 660' FWL
Section 16, T16S, R32E
Mesa Queen Field
Lea County, New Mexico

Proposed Water Injection Well

1. Proposed average daily rate: 250 bwpd
Proposed Maximum daily rate: 450 bwpd
2. Closed System
3. Proposed average injection pressure: 500lbs psi
Proposed maximum injection pressure: 750lbs psi
4. Sources of injected fluid: produced water Queen formation:
will be compatible with propased injected zone being "Queen
Formation".
5. No stimulation proposed, well currently takes fluid on vacuum.
6. Logs have been previously submitted to NMOCD.

Applicant states that it has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

P 154 366 414

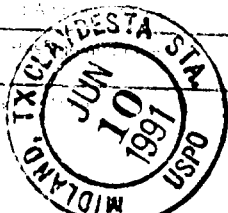
RECEIPT FOR CERTAIN MAIL

NEW MEXICO/P.L.
BOX 1148
SANTA FE N.M. 87501
52
1.00

1.00

PS Form 3800, June 1985

TOTAL	2.52
PAID	



Affidavit of Publication

STATE OF NEW MEXICO)

) ss.

COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is **Adv. Director** of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

and numbered in the Court of Lea County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, once each week on the same day of the week, for **one (1)**

consecutive weeks, beginning with the issue of

May 24 19**91**

and ending with the issue of

May 24 19**91**

And that the cost of publishing said notice is the sum of \$**8.30**

which sum has been (Paid) ~~xxxxxx~~ as Court Costs

Joyce Clemens
30th

Subscribed and sworn to before me this day of **May** 19**91**

Mr. Jean Serier
Notary Public, Lea County, New Mexico

My Commission Expires **Sept. 28** 19**94**

LEGAL NOTICE

Xeric Oil & Gas Co. has made application to convert the Mesa Queen Unit No. 14 well situated 2310 feet from the South line and 660 feet from the west line of Section 16, T-16-S, R-32-E, Lea County, New Mexico from an oil producer to a salt water injection well. If approved the well will be used to inject produced water into the Queen formation at a depth interval from about 3400 feet to 3450 feet at maximum injection rates of 450 bwpd and maximum injection pressures of 7500 psi. Contact party for applicant is Randall Capps, (915) 683-3171, P.O. Box 51311, Midland, TX 79710. Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501 within 15 days.

Published in the Lovington Daily Leader May 24, 1991.

Xeric Oil & Gas Company

RECEIVED
OIL CONSERVATION DIVISION
NOV 10 1991

Randall Capps
Greg McCabe

P.O. Box 51311
Midland, Texas 79710
(915) 683-3171

FAX:

(915) 683-3152

November 1, 1991

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Attn: David Catanach

Re: Mesa Queen Unit

Dear David:

Enclosed please find the data you requested on the Mesa Queen Unit. Please notify me as soon as possible on the approval of our request.

Should you have any further questions, please call us.

Sincerely,

XERIC OIL & GAS COMPANY



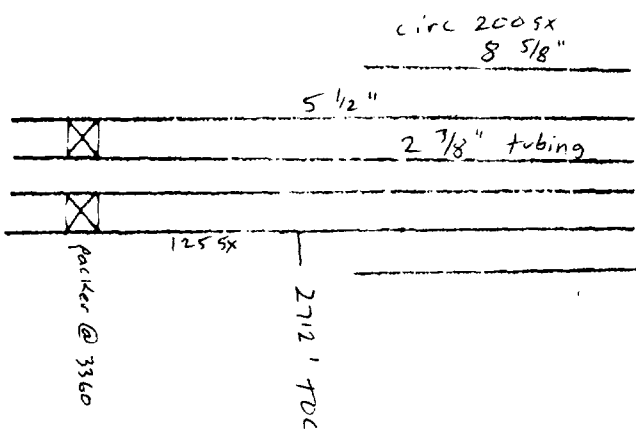
Gary S. Barker
Operations Manager

GB/kwr

165
32055

Xeric Oil & Gas Company
OPERATORMesa Queen Unit
LEASE5 2310 ENL & 330 FEL
WELL NO. FRIIAGE LOTATION17
SECTION TOWNSHIP32-E
RANGE

Schematic



Tabular Data

Surface casing

Size 8 5/8 " Cemented with 200 sx.

TUC surface feet determined by circulated

Hole size 11"

Intermediate casing

Size " Cemented with sx

TUC feet determined by

Hole size

Long string

Size 5 1/2 " Cemented with 125 sx

TUC 2712 feet determined by calculated

Hole size 7 7/8"

Total depth 3474

Injection interval

3404 feet to 3410 feet
 (perforated or open-hole, indicate which) feet
 performed

Inactive injector

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic set in a
 Baker AD-1 packer at _____ feet
 (brand and model) _____
 (or describe any other casing-tubing seal).
 Other Data _____

1. Name of the injection formation Queen
 2. Name of field or pool (if applicable) Moore Queen
 3. Is this a new well drilled for injection? Yes ☒ No ☐
 If no, for what purpose was the well originally drilled? product from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals
 and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in
 this area. None, to our knowledge

LEA COUNTY

①

Mesa-Queen

Cactus Drilling Company

#1 Sinclair-State "A"

2310' fr N Line &

330' fr E Line of

Sec. 17-16S-32E

PD 3500'

Elevation: NA

Spudded 12-27-63, COMPLETED 1-3-64, TD 3474', PB 3454', Prod. Int. 3404-10' (Queen), IP Flwd 64 BO in 24 hrs thru 10/64" chk., gravity 35., CP 650#, TP 425#. Cored 3385-3414', rec 25' being: 8' anhy., 4' sd., w/slight show oil, 6' tight sd., no shows, 7' sd., w/good show. Perf 3404-10' W/4 SPF, Ac. 250 gals. LOG TOPS: Anhydrite 1250', Yates 2530', Queen 3390'. Casing: 8 5/8" @ 385' W/200 sx., 5 1/2" @ 3474' W/125 sx.

The Subsurface Library
P. O. Box 942
Midland, Texas

Xeric Oil & Gas Company
OPERATOR

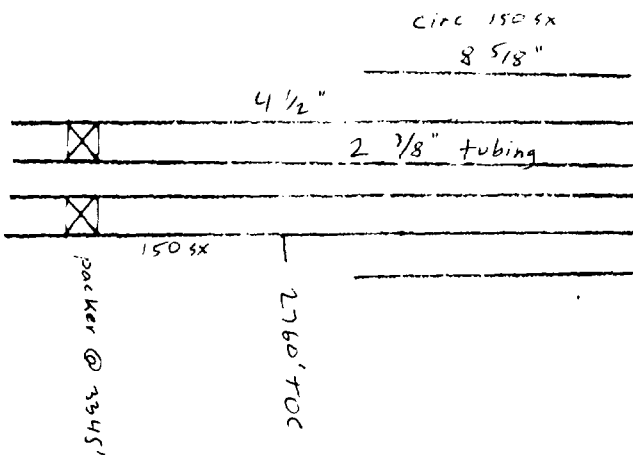
Mesa Queen Unit
LEASE

6
WELL NO. 1980 FNL & 660 FWL
FRONTAGE LOCATION

16
SECTION 16-S
TOWNSHIP

32-E
RANGE

Schematic



Tabular Data

<u>Surface Casing</u>	
Size <u>8 5/8</u>	cemented with <u>150</u> sx.
TUC <u>surface</u>	feet determined by <u>circulated</u>
Hole size <u>11"</u>	
<u>Intermediate Casing</u>	
Size <u> </u>	cemented with <u> </u> sx
TUC <u> </u>	feet determined by <u> </u>
Hole size <u> </u>	
<u>Long string</u>	
Size <u>4 1/2</u>	cemented with <u>150</u> sx.
TUC <u>2760</u>	feet determined by <u>calculation</u>
Hole size <u>6 3/4"</u>	
Total depth <u>3455'</u>	
<u>Injection interval</u>	
<u>3408</u>	feet to <u>3416</u> feet
<u>(perforated or open-hole, indicate which)</u>	
<u>perforated</u>	
<u>perforated</u>	

Inactive Injector

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic set in a
 Baker AD-1 packer at 3345 feet
 (brand and model) (material)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Queen
 2. Name of field or pool (if applicable) Mojo Queen
 3. Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? producer from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals
 and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in
 this area. None, to our knowledge

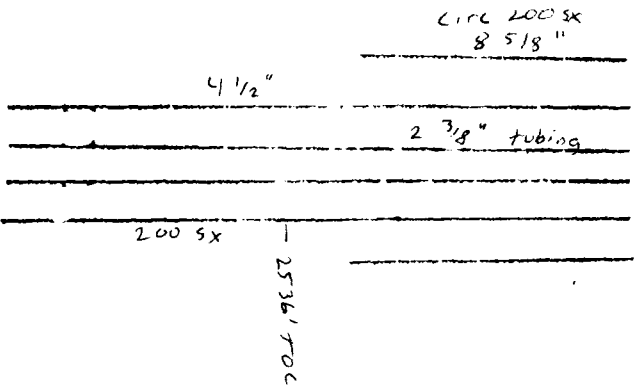
WELL BORE SCHEMATIC

SIDE 1

Xeric Oil & Gas Company
 OPERATOR Mesa Queen Unit
 LEASE

7 1980 FNL & 1980 FNL 16 16-S 32-F
 WELL NO. FOMPAGE LOCATION SECTION TOWNSHIP RANGE

Schematic



Tabular Data

Surface casing

Size 8 5/8 Cemented with 200 sx.

Tuf Surface feet determined by circulated

Hole size 11"

Intermediate casing

Size Cemented with sx

Tuf feet determined by

Hole size

Long string

Size 4 1/2 Cemented with 200

Tuf 2536 feet determined by calculated

Hole size 3463

Total depth 3463'

Production
 XXXXXXXXXX interval

Active producer
 3408 feet to 3414 feet
 (perforated or open-hole, indicate which)
 perforated
 perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with N/A set in a
 (brand and model) N/A packer at N/A feet
 (or describe any other casing-tubing seal).

Other Data

1. Name of the ~~XXXXXX~~ producer Queen formation Queen
 2. Name of field or Pool (if applicable) Queen
 3. Is this a new well drilled for injection? 17 Yes XX No
 If no, for what purpose was the well originally drilled? producer from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None, to our knowledge

3

SCOUT TICKET

STATE New Mexico

COUNTY Lea

FIELD Mesa-Queen

OPERATOR Cactus Drilling Co.

LEASE Mobil State "B"

WELL NO. 1

LOCATION 1980' FNL & FWL

Elev. 4355' DF

SEC. 16 T. 16-S R. 32-E

Elev.

SPUD 12-29-62 COMP. 1-4-63 TD 3463' Li PB

Contract Depth 3450' Method RT

Contractor

Casing Record

____ @ _____ w/ _____ SX
13 3/8 @ _____ w/ _____ SX
10 3/4 @ _____ w/ _____ SX
9 5/8 @ _____ w/ _____ SX
8 5/8 @ 374' w/ 200 SX
7 5/8 @ _____ w/ _____ SX
7 @ _____ w/ _____ SX
4 1/2 ~~XXX~~ @ 3463' w/ 200 SX

Liner

FORMATION

SPL. TOP

ELEC. TOP

Anhydrite

1265'

Yates

2530'

Queen

3386'

PAY & INTERVAL

F
OR
P

AMOUNT

WTR

HRS

GOR

GTY

CHK

CP

TP

TREATMENT

3408-14'

F

48 BO 24', thru 24/64" chk, Grav. 31, AA,

(Queen)

FCP 880, FTP 500.

Date

Perf 4/3408-10, 4/3412-14, A/250.

THE SUBSURFACE LIBRARY ®

P. O. BOX 942

MIDLAND, TEXAS

WELL BORE SCHEMATIC

SIM 1

Xeric Oil & Gas Company
OPERATOR

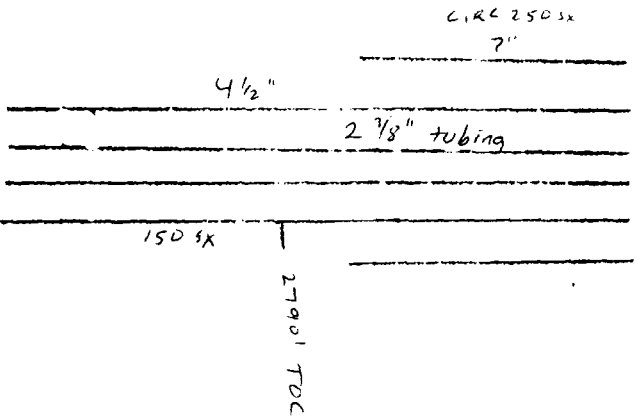
Mesa Queen Unit
LEASE

13 1980 FSL & 660 FEL
WELL NO. FRIIAGE LOTATION

17 SECTION TOWNSHIP

32-E RANGE

Schematic



Tabular Data

Surface Casing

Size 7 " Cemented with 250 sx.

TUC Surface feet determined by circulated

Hole size 11"

Intermediate Casing

Size " Cemented with sx

TUC feet determined by

Hole size

Long string

Size 4 1/2 " Cemented with 150 sx.

TUC 2790 feet determined by calculated

Hole size 6 3/4"

Total depth 3485'

Production

XXXXXXXXXX interval

3410 feet to 3414 feet

Active producer

perforated

perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with N/A (material) N/A feet set in a
packer at

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Queen

Queen

2. Name of field or Pool (if applicable) Queen

3. Is this a new well drilled for injection? ☐ Yes ☒ No

If no, for what purpose was the well originally drilled? producer from Queen
 formation no List all such perforated intervals.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals
 and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in
 this area. None, to our knowledge

LEA COUNTY

4

Mesa-Queen

Shell Oil Company
#1 State MQ "B"
1980' fr S Line &
660' fr E Line of
Sec. 17-16S-32E
PD 3485'

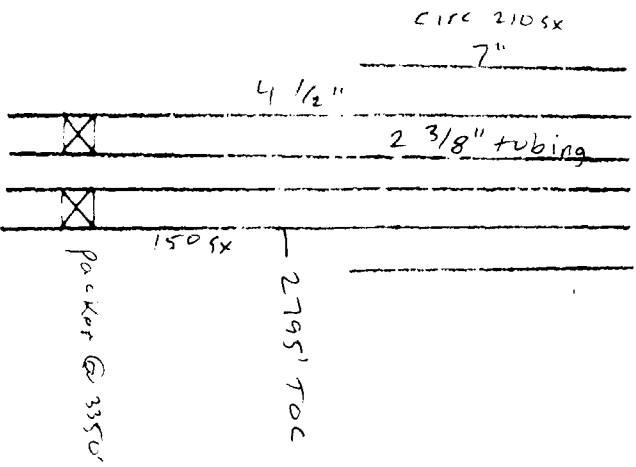
Elev. 4360' DF

Spudded 10-16-63, COMPLETED 10-23-63, TD 3485', PB 3452', Prod. Int. 3410-20' (Queen), IP Flwd 159 BOPD, Pot Based on 6 hr 20 min test of 42 BO thru 13/64" chk., GOR 279, Gravity 35.9, CP 850#, TP 250#. Cored 3384-3434', rec 47' being: 16' anhy., 5' sd., w/poor show, 2' anhy., 13.5' sd., w/good stain, poor fluor., 1' sd., 6' silt, 2.5' sd., w/gilsonite, & 1' anhy. Perf 3410-14' W/2 SPF, & 3414-20' W/1 SPF, Ac. 150 gals. LOG TOPS: Yates 2534', Seven Rivers 2802', Queen 3396'. Casing: 7" @ 371' W/250 sx., 4½" @ 3485' W/150 sx.

The Subsurface Library
P. O. Box 942
Midland, Texas

Xeric Oil & Gas Company
OPERATORMesa Queen Unit
LEASE14
WELL NO. 2310 FSL & 660 FWL
FOUNTAINE LOTATION16
SECTION 16-S
TOWNSHIP32-E
RANGE

Schematic



Tabular Data

<u>Surface Casing</u>	
Size <u>7</u>	Cemented with <u>210</u> sx.
TUC <u>Surface</u>	feet determined by <u>circulated</u>
Hole size <u>1 1/2"</u>	
<u>Intermediate Casing</u>	
Size <u>4 1/2"</u>	Cemented with <u>150</u> sx.
TUC <u>2795</u>	feet determined by <u>calculated</u>
Hole size <u>6 3/4"</u>	
<u>Long string</u>	
Size <u>4 1/2"</u>	Cemented with <u>150</u> sx.
TUC <u>2795</u>	feet determined by <u>calculated</u>
Hole size <u>6 3/4"</u>	
Total depth <u>3490'</u>	
Injection interval	

Proposed injector

3405 feet to 3409 feet
 (perforated or open-hole, indicate which)

perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic set in a
(material)
 Baker AD-1 packer at 3350 feet
(brand and model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Queen
2. Name of field or Pool (if applicable) Mesa Queen
3. Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? producer from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None, to our knowledge

5

LEA COUNTY

Mesa-Queen

Shell Oil Company

#1 State "MQ"

2310' fr S Line &

660' fr W Line of

Sec. 16-16S-32E

PD 3490'

Oper's Elev. 4359' Df

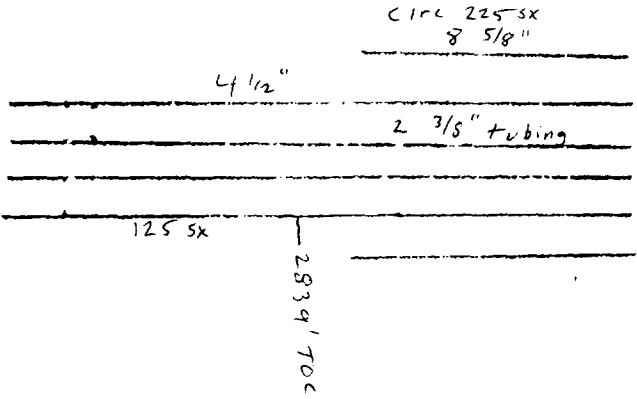
Spudded 10-5-63, COMPLETED 10-15-63, TD 3490', PB 3457', Prod. Int. 3405-09' (Queen), IP Flwd 759 BOPD, Pot. Based on 2 hr 45 min test of 87 BO thru 16/64" choke, GOR 478, gravity 35.9, TP 190#. Cored 3400-48', rec 44' being: 10.5' sd., w/good to excellent show, 4' sd., w/poor show, 29.5' anhy. & sh. Perf 3405-09' W/2 SPF, Ac. 150 gals. LOG TOPS: Yates 2530', Seven Rivers 2798', Queen 3392'. Casing: 7" 373' W/210 sx., 4½" @ 3490' W/150 sx.

The Subsurface Library
P. O. Box 942
Midland, Texas

Operator Xeric Oil & Gas Company Mesa Queen Unit
LEASE

15 2310 EST. & 1650 FWL 16 16-S 32-F
WELL NO. FRIIAGE LOTATION SECTION TOWNSHIP RANGE

Schematic



Tabular Data

Surface casing
Size 8 5/8" Cemented with 225 sx.
TDC Surface feet determined by circulated
Hole size 11"
Intermediate casing
Size Cemented with sx.
TDC feet determined by
Hole size
Long string
Size 4 1/2" Cemented with 125 sx.
TDC 2839 feet determined by calculated
Hole size 6 3/4"
Total depth 3473'
Production
~~XXXXXXXXXX~~ interval

Active producer

3412' feet to 3418' feet
(perforated or open-hole, indicate which)

perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with N/A (material) N/A set in a
N/A packer at N/A feet
 (brand and model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Queen
 2. Name of field or Pool (if applicable) Mesa Queen
 3. Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? producer from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals
 and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in
 this area. None, to our knowledge

6

SCOUT TICKET

STATE New Mexico

COUNTY Lea

FIELD Undesignated

OPERATOR Cactus Drilling Co.

LEASE Mobil State

WELL NO. 3

LOCATION 2310' FSL & 1650' FWL

Elev. 4354' DF

SEC. 16 T. 16-S R. 32-E

Elev.

SPUD 7-28-63 COMP. 8-6-63 TD. 3473' sd PB 3471'

Contract Depth 3450' Method RT

FORMATION

SPL. TOP

ELEC. TOP

Contractor

Casing Record

___ @ ___ w/ ___ SX

13% @ ___ w/ ___ SX

10% @ ___ w/ ___ SX

9% @ ___ w/ ___ SX

8% @ 278' w/ 225 SX

7% @ ___ w/ ___ SX

7 @ ___ w/ ___ SX

4 1/2 ~~SX~~ @ 3473' w/ 125 SX

Liner

Anhydrite

Yates

Queen

1267'

2537'

3399'

PAY & INTERVAL	F OR P	AMOUNT	WTR	HRS	GOR	GTY	CHK	CP	TP	TREATMENT
3412-18'	F	47 BO 24'					33/64"	chk		Grav. 35, AA,
(Queen)							FCP 700,			FTP 90.

Date

Cored 3396-3426': Rec. 30' being 4' sand no chow +
3' anhy + 5' sand show oil + 5' sand scat stain +
13' sand & anhy no show.

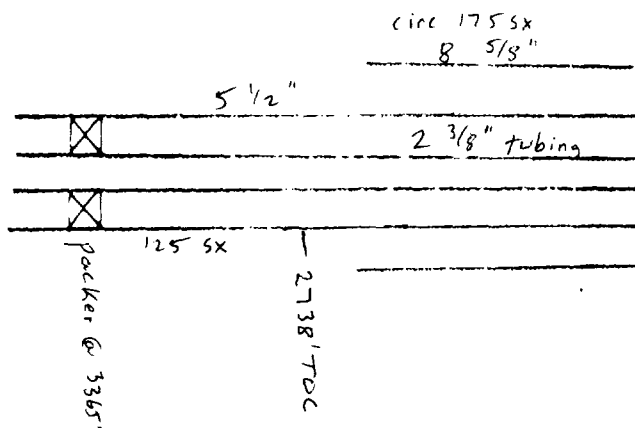
Perf 24/3412-18.

A/250.

The Subsurface Library
P. O. Box 942
Midland, Texas

Xeric Oil & Gas Company
OPERATORMesa Queen Unit
LEASE20 990 FSL & 670 FEL
WELL NO. FOOTAGE LOCATION17 16-S 32-E
SECTION TOWNSHIP RANGE

Schematic



Tabular Data

Surface casing

Size 8 5/8 " cemented with 175 sx.TUC Surface feet determined by circulatedHole size 11"

Intermediate casing

Size " cemented with sxTUC feet determined by Hole size

Lining string

Size 5 1/2" " cemented with 125 sx.TUC 2738 feet determined by calculatedHole size 7 7/8"Total depth 3500'

Injection interval

3414 feet to 3424

(perforated or open-hole, indicate which) feet

perforated

Active Injector

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic set in a
 Baker AD-1 packer at 3365 feet
 (brand and model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Queen
 2. Name of field or Pool (if applicable) Mesa Queen
 3. Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? producer from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals
 and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in
 this area. None, to our knowledge

(7)

LEA COUNTY

Mesa-Queen

CACTUS DRILLING COMPANY

#1 Mobil-State "C"

990' fr S Line &

670' fr E Line of

Sec. 17-16S-32E

PD 3500'

Elev. NA 4357

Spudded 2-15-64, COMPLETED 2-25-64, TD 3500', IP
Queen Perfs 3414-24' Flwd 48 BOPD. Pot. Based on
24 hr test thru 16/64" chk., TP 225#, CP 480#, gravity
34. Cored 3409-30', rec 21' being: 2' sd., w/show
oil, 4' tight sd., w/NS, 12' sd., w/good show oil,
3' anhy. Perf 3414-24' W/4 SPF, Ac. 250 gals.
LOG TOPS: Anhydrite 1255', Yates 2535', Queen 3403'.
Casing: 8 5/8" @ 375' W/175 sx., 5 1/2" @ 3500' W/
125 sx.

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P. O. Box 942
Midland, Texas

WELL BORE SCHEMATIC

SIM 1

Operator Xeric Oil & Gas Company

Unit Mesa Queen Unit

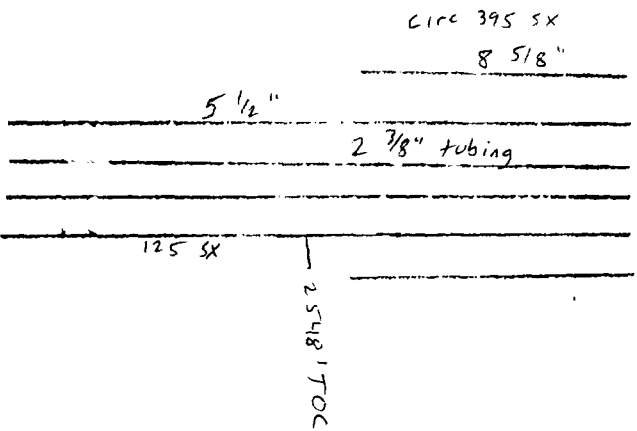
21 930 FSL & 330 FWL
WELL NO. FOMIAGE LOCATION

16 SECTION TOWNSHIP

32-E RANGE

LEASE

Schematic



Tabular Data

Surface Casing

Size 8 5/8 Cemented with 395 sx.

TUC Surface feet determined by Circulated

Hole size 11"

Intermediate Casing

Size Cemented with sx.

TUC feet determined by

Hole size

Long string

Size 5 1/2 Cemented with 125 sx.

TUC 2548 feet determined by calculated

Hole size 7 7/8"

Total depth 3500'

Production

XXXXXXXXXX interval

Inactive Producer

3403 feet to 3422 feet
(perforated or open-hole, indicate which)

perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with N/A (material) / set in a
N/A (brand and model) packer at N/A feet
 (or describe any other casing-tubing seal).
 Other Data

1. Name of the injection formation Queen

2. Name of field or Pool (if applicable) Mesa Queen

3. Is this a new well drilled for injection? / Yes XX No
 If no, for what purpose was the well originally drilled? producer from Queen
formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals
 and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in
 this area. None, to our knowledge

LEA COUNTY

8

Mesa-Queen

CACTUS DRILLING COMPANY
#3 Sinclair-State "A"
990' fr S Line &
330' fr W Line of
Sec. 16-16S-32E
PD 3500'

Elev.: NA 4356

Spudded 1-27-64, COMPLETED 2-3-64, TD 3500', PB
3477', IP Queen Perfs 3412-22' Swbd 58 BOPD + 3
BW. Pot. Based on 24 hr test. Cored 3409-31',
rec 20' being: 2' sd., w/show, 4' tight sd.,
8' sd., w/good show & 6' anhy. Perf 3412-22'
W/4 SPF, Ac. 250 gals. LOG TOPS: Anhydrite
1255', Yates 2533', Queen 3400'. Casing: 8 5/8"
@ 395' W/200 sx., 5 1/2" @ 3500' W/125 sx.

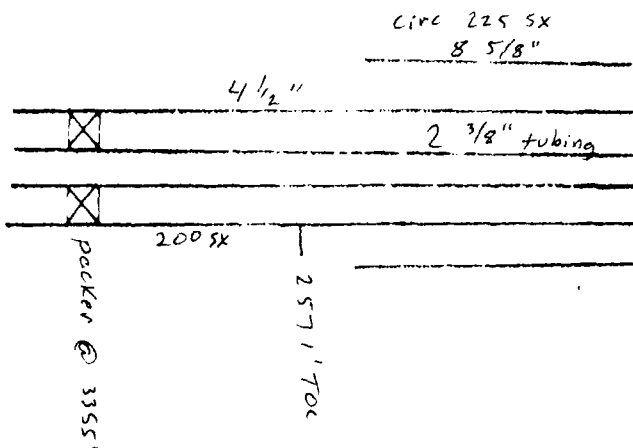
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Midland, Texas

MAPS _____ CO-ORD. _____
F. R. _____ OBJ _____ METHOD _____ RESPUD. 5-9-67
CTR _____ C. R. _____ ELEV D. F. 4356²
LOGS _____ SPLS _____ GL _____
TD. 3500² Im PBD _____ ABD LOC. _____ P & A _____

CSG-TBG-PKR RECORD	REACHED T. D.
8 5/8 - 395 - 200	
5 1/2 - 3500 - 125	

[illegible]

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Midland, Texas

Xeric Oil & Gas Company
OPERATORMesa Queen Unit
LEASE25 990 FSL & 1650 FWL
WELL NO. FOOTAGE LOCATION16 16-S
SECTION TOWNSHIP32-E
RANGESchematicTabular DataSurface casingSize 8 5/8" " cemented with 225 sx.TUC Surface feet determined by circulatedHole size 11"Intermediate CasingSize " cemented with sxTUC feet determined by Hole size Long stringSize 4 1/2 " cemented with 200 sx.TUC 2571 feet determined by calculatedHole size 6 3/4"Total depth 3498'Injection interval3410 feet to 3429 feet
(perforated or open-hole, indicate which)

perforated

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" lined with plastic (material) 3355 feet set in a

Baker AD-1

(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Queen

Mesa Queen

2. Name of field or Pool (if applicable) Yes ☒ No

3. Is this a new well drilled for injection? ☐ Yes ☒ No

If no, for what purpose was the well originally drilled? producer from Queen

formation

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) no

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None, to our knowledge

9

COUNTY LEA, NEW MEXICO FIELD MESA (QUEEN)
OPR TENNECO OIL COMPANY
SE MESA QUEEN UNIT WELL NO. 25
LOC Sec 16, T-16-S, R-32-E (N)
990 FSL & 1650 FWL of Sec
WATER INJECTION WELL

UNIQUE NO. 30-025-23483

MAPS 4-15-70 OBJ 3470' RT CO-ORD 4-23-70

F. R. 4-15-70 LAHEE CLASS ELEV D. F. 4345' Op

LOGS 3498' SMLS 3465' GL 4345' Op

TD 3498' PBD 3465' ABD LOC. P & A

PAY ZONE	PROD INTERVAL	IP	BO	W	HRS	CHK	TEST BASIS
	3410-29						WATER INJECTION WELL

GOR	GTY	CP	TP	BHP	POT DATE	TREATMENT
					5-6-70	1250

CSG 8 5/8 - 385 - 225
4 1/2 - 3498 - 200

COUNTY LEA, NEW MEXICO FIELD MESA (QUEEN)
WELL: TENNECO #25 MESA QUEEN UNIT ELEV

DATE	WELL RECORD	REACHED T. D.	SPL (LOG) MARKERS
	TD 3498' PB 3465'		On (3410)
	Pf. 38/3410-29, A/1250		
	Inj. 508 BW, 24'		

(8-19-70)

The Subsurface Library
P. O. Box 942
Midland, Texas



WF

Water Analysis

Date: 26-Jun-99

2708 West County Road, Hobbs NM 88240
Phone (505) 392-5556 Fax (505) 392-7307

Wolfcamp 9,910'-300'

Analyzed For

Company	Well Name	County	State
Nearburg	Rancho Verde 10#1	Lea	New Mexico

Sample Source Swab Sample Sample # 312 over load

Formation Wolfcamp Depth 9910 - 9930

Specific Gravity	1.010	SG @ 60 °F	1.016
pH	6.76	Sulfides	Present
Temperature (°F)	84	Reducing Agents	Present

Cations

Sodium (Calc)	in Mg/L	463	in PPM	463
Calcium	in Mg/L	2,200	in PPM	2,168
Magnesium	in Mg/L	384	in PPM	378
Soluble Iron (FE2)	in Mg/L	0.0	in PPM	0

Anions

Chlorides	in Mg/L	3,200	in PPM	3,153
Sulfates	in Mg/L	600	in PPM	493
Bicarbonates	in Mg/L	659	in PPM	649
Total Hardness (as CaCO3)	in Mg/L	7,100	in PPM	6,996
Total Dissolved Solids (Calc)	in Mg/L	6,260	in PPM	6,159
Equivalent NaCl Concentration	in Mg/L	6,708	in PPM	6,626

Scaling Tendencies

*Calcium Carbonate Index 1,449,360

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index 1,100,000

Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks formation water clyde finley 9156874130 matt lee 5057481129gerald
strange3922817home
.31/rw

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

Revised 10-1-78

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OPERATOR	

③

5a. Indicate Type of Lease	State ☒ Fee ☐
5. State Oil & Gas Lease No.	E-7744

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 - 1" (FORM C-101) FOR SUCH PROPOSALS.)

1. ☐ OIL WELL ☐ GAS WELL ☐ OTHER: Water Injection Well	7. Unit Agreement Name Mesa Queen Unit
2. Name of Operator Tenneco Oil Company	8. Field or Lease Name
3. Address of Operator 6800 Park Ten Blvd., Suite 200 North San Antonio, Texas 78213	9. Well No. 1
4. Location of Well UNIT LETTER C , 990 FEET FROM THE North LINE AND 2310 FEET FROM THE West LINE, SECTION 16 TOWNSHIP 16S RANGE 32E N.M.P.M.	10. Field and Pool, or Without Mesa Queen Assoc.
15. Elevation (Show whether DF, RT, GR, etc.) 4351' DF	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPS. ☐	PLUG AND ABANDONMENT ☒
PULL OR ALTER CASING ☐	OTHER ☐	CASING TEST AND CEMENT JOB ☐	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1503.

1. MIRUPU.
2. TIH set CIBP @ 3348'.
3. Attempted to load csg. Would not load.
4. Squeezed 500 sxs cmt into formation.
5. Drilled cmt out.
6. Attempted to load csg. Would not load.
7. Pumped 20 sxs cmt on top of plug. PU to 500' and pumped 55 sxs C1 cmt. to surf.
8. POOH RDP.
9. Install P & A marker and clean location.

P & A verbally approved by Jerry Sexton 2/22/83.

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

SIGNED Robert Q. Matthews TITLE Prod. Engr. Supervisor DATE 3/1/83

APPROVED BY David Calvo TITLE OIL & GAS INSPECTOR DATE MAY 19 1983

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

(Form C-104)
Revised 7/1/57

Santa Fe, New Mexico

REQUEST FOR (OIL) (GAS) ALLOWABLE

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LAND OFFICE	
TRANSPORTATION	
PRODUCTION OFFICE	
OPERATION	

Oct 21 7 29 AM '63
New Well Completion

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7.00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when new oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Locals, Santa Fe, New Mexico 8610-17-03
(Place) (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS

Cactus Drilling Company Continental Co., Well No. 1, in Section 16, Township 17N, Range 32E, NMPM, Undesignated Pool

Company or Operator

(Lease)

C Sec. 16 T. 16 R. 32 NMPM, Undesignated Pool

Please indicate location:

D	C	B	A
E	X		
F		G	H
L	K	J	I
M	N	O	P

County Date Spudded 10-6-63 Date Drilling Completed 9-12-63

Elevation 4351 D.F. 502 P.M. 3435

Top Oil/Gas Pay 3300 Name of Prod. Form 100-211

PRODUCING INTERVAL -

Perforations 3389-3395

Open Hole Depth 3502 Casing Shoe 3502 Depth Tubing 3411

OIL WELL TEST -

Natural Prod. Test: none bbls. oil, 0 hrs. min. Size

Test After Acid or Fracture Treatment: after recovery of volume of oil equal to volume of load oil used: none bbls. oil, 0 hrs. min. Size

GAS WELL TEST -

Natural Prod. Test: none MCF, 0 hrs. flowed Choke Size

Method of Testing (pitot, back pressure, etc.)

Test After Acid or Fracture Treatment: MCF/day; Hours flowed 24

Choke Size 16/64 Method of Testing: Pitot

Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil, and sand): Stimulated w/500 gal. 15% acid.

Casing Press. 950 Tubing Press. 620 Date first OK'd 10-1-63 Initial on Casing or Tubing: Initial Well Shut in

Oil Transporter

Gas Transporter Phillips Petroleum Co., Tulsa, Oklahoma

Remarks:

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

Approved:

10/1/63

19.

Operator (Company or Operator)

OIL CONSERVATION COMMISSION

By: [Signature] Signature

By: [Signature]

Title Send Communications regarding well to

AREA 640 ACRES
LOCATE WELL CORRECTLY

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in **QUINTUPLICATE**. If State Land submit 6 Copies

Cactus Drilling Company
(Company or Operator)

Nobil State
(Lessee)

Well No. 2, in NW $\frac{1}{4}$ of NW $\frac{1}{4}$, of Sec. 16, T. 16s, R. 32e, NMPM.
Undesignated Pool, Lea County.

Well is 660 feet from North line and 990 feet from West line
of Section 16. If State Land the Oil and Gas Lease No. is E6485

Drilling Commenced 9-5, 19 62. Drilling was Completed 9-9, 19 62.

Name of Drilling Contractor Cactus Drilling Company

Address P O Box 1826, Hobbs, New Mexico

Elevation above sea level at Top of Tubing Head 4358 D F. The information given is to be kept confidential until
....., 19.....

OIL SANDS OR ZONES

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

IMPORTANT WATER SANDS

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

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

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF END	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
8-5/8"	24 $\frac{1}{2}$	New	342	TP			surface
Oil string was not run							

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	NO. BAGS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
11"	8-5/8"	342	200	Halliburton		circulated to surf

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Cored well from 3380 to 3430, reamed and ran logs with no show.

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company Cactus Drilling Company		Address 1200 1st St., N.E., Albuquerque, N.M.					
Lease 100-1000	Well No. 2	Unit Letter D	Section 10	Township 10S	Range 22 E		
Date Work Performed 9-9-62	Pool Undesignated	County Bernalillo					

THIS IS A REPORT OF: (Check appropriate block)

- ☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☐ Other (Explain):
☒ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained:

Well drilled to depth of 3450' Total Depth. 10' in well performed on the well with no show. Verbal permission to plug well was orally granted by Mr. Eric Engbrecht by telephone. Set plug at 3450' with 20 sk cement, set plug at 2350' with 20 sk cement, set plug at 1350' with 20 sk cement, set plug at 342' with 20 sk cement and set plug at surface with 10 sk cement.

Intervals between plugs filled with mud.

Appropriate marker has been installed at well location.

Witnessed by Doyle Proctor	Position Pusher	Company Cactus Drilling Company
-------------------------------	--------------------	------------------------------------

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P B T D	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION

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

Approved by Leslie A. Clemente	Name Leslie A. Clemente
Title	Position