STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: UNION TEXAS PETROLEUM CORP.

Address: P.O. BOX 2120, HOUSTON, TEXAS 77252-2120

Contact party: KEN WHITE Phone: 713/ 968-4354

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. Attached

* 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: Attached

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.).

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OIL CONSERVATION DIVISION
SANTA FE

*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. Attached

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.) Currently not available.

* 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.
No fresh water wells within one mile radius.

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.
Attached

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: Ken White Title Regulatory Permit Coordinator

Signature: Ken White Date: 2/3/89

* 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.

DISTRIBUTION: Original and one copy to Santa Fe, one copy to the appropriate division

AFFIDAVIT OF PUBLICATION

No. 22904

STATE OF NEW MEXICO,
County of San Juan:

Betty Shipp being duly

sworn, says: That he is the Nat'l. Adv. Manager of

THE FARMINGTON DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached legal notice

was published in a regular and entire issue of the said FARMINGTON DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for one consecutive (days) (weeks) on the same day as follows:

First Publication Wednesday, January 25, 1989

Second Publication

Third Publication

Fourth Publication

and that payment therefor in the amount of $ 7.39

has been made.

Betty Shipp

Subscribed and sworn to before me this 26th day

of January, 19 89.

NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO

My Commission expires: June 23, 1990

Copy of Publication

NOTICE

Union Texas Petroleum proposed to drill the Pump Canyon SWD #1 for injection of saltwater into the Jurassic Morrison/Estrada zone not productive of oil and gas. This well is located 400 FNL & 1200 FEL, Section 25, T31N, R9W, San Juan County, New Mexico. Maximum injection rate is expected to be 3500 BWD at 1700 PSIG.

Interested parties must file objection or requests for hearing with the NMOCD, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

UNION TEXAS PETROLEUM
Attention: Ken White
P. O. Box 2120
Houston, Texas 77252-2120
(713) 968-4394

Legal No. 22904 published in the Farmington Daily Times, Farmington, New Mexico on Wednesday, January 25, 1989

C-108 Attachments
Pump Canyon SWD #1

III. General Well Data:

A. (1) Lease Name - Pump Canyon SWD
Well Number - 1
Location - Footage, 400' FNL, 1220' FEL
Section 25, T31N-R9W
San Juan County, New Mexico

(2) See attached diagram.

Csg.	Hole Size	Csg. Size	Depth Set	Cement Volume	Proposed Top Cement
Surface	26"	20" 94# H-40	400'	1020 sx	Surface
Inter	14-3/4"	10-3/4" 40.5# K-55	3100'	1120 sx	1st stage st - 1500'
					2nd stage st - surface
Drlg Liner	9-1/2"	7-5/8" 26.4# N-80	7300'	565 sx	st-liner top = 2925'
Inj. Strg.	6-3/4"	5-1/2" 20# L-80	8600'	155 sx	5390'

(3) Injection Tubing:

Tubing size - 2-7/8" OD, 10.5#, K-55, non-coated. Setting depth - 7300', top perforation at 7515', which is 100' below the bottom of the Dakota zone.

(4) Isolation Packer:
Packer - Size 7"
Type Otis
Model WD

Seal Assembly - Type Otis
Model J - slot

B. Well Data:

(1) Injection formation name: Morrison and Entrada

(2) Injection interval:
Morrison Perforated
Entrada Perforated

(3) The original purpose for drilling this well is to dispose of produced water.

(4) There are to be no additional perforated intervals in the proposed well.

(5) There are no lower producing zones in this area. The next higher producing zone is the Dakota at 7369' to 7515'.

VI. There are no wells penetrating the proposed depth interval within the two-mile area of review.

VII. **Proposed Injection Operations:**

1. The average injection rate is estimated at 3500 bbls/day. The estimated maximum is 5000 bbls/day.

2. The injection system will be closed.

3. The surface injection system will have an estimated maximum pressure of 1700 psig.

4. The source water will be from Fruitland Coal formation.

5. Injection is for disposal purposes into a zone with no known oil and gas production within several miles. Chemical analysis and compatibility with injected water will be supplied when the data becomes available.

VIII. The proposed injections zones are the Jurassic Morrison and Entrada, both zones are sandstone. The Morrison interval is estimated at 7515' to 8600' from GL (5992') having a thickness of 1185'. The Entrada interval is estimated at 8286' to 8486' from GL having a thickness of 200'.

The only overlaying freshwater aquifer is the Ojo Alamo, having an estimated depth of 1450' from GL. There is no known fresh water below the injection zone.'

IX. The proposed stimulation program will consist of sand water fracturing of each interval using 1000 lbs of 20/40 sand per net foot of formation interval. Proppant concentrations will be from 1/2 to 2 lbs/gallon. The fracturing fluid will be a 40 lb/gallon linear gel.

X. No logs or test data are available at present.

XI. Any fresh water wells in the area will have water analysis performed in the near future.

XII. An examination of geologic and engineering data indicates no evidence of open faults or other hydrologic connection between the disposal zone and any source of drinking water. This conclusion is based on proof of isolation between upper gas and oil bearing zones within the study area.

C-108 Attachments
Pump Canyon SWD #1

XIII. **Proof of Notice:**

A copy of the application and support documents have been sent by certified mail to the following:

Ramon Ulibarri
#652 Rd. - 4599
Blanco, NM 87412
Surface Owner

El Paso Natural Gas Co.
P. O. Box 4990
Farmington, NM 87401
Offset Leasehold Operator

Notice sent out February 8, 1989

Unicon Producing Co. (Supron)
P. O. Box 2120
Houston, Texas 77252-2120
Union Texas Petroleum subsidiary

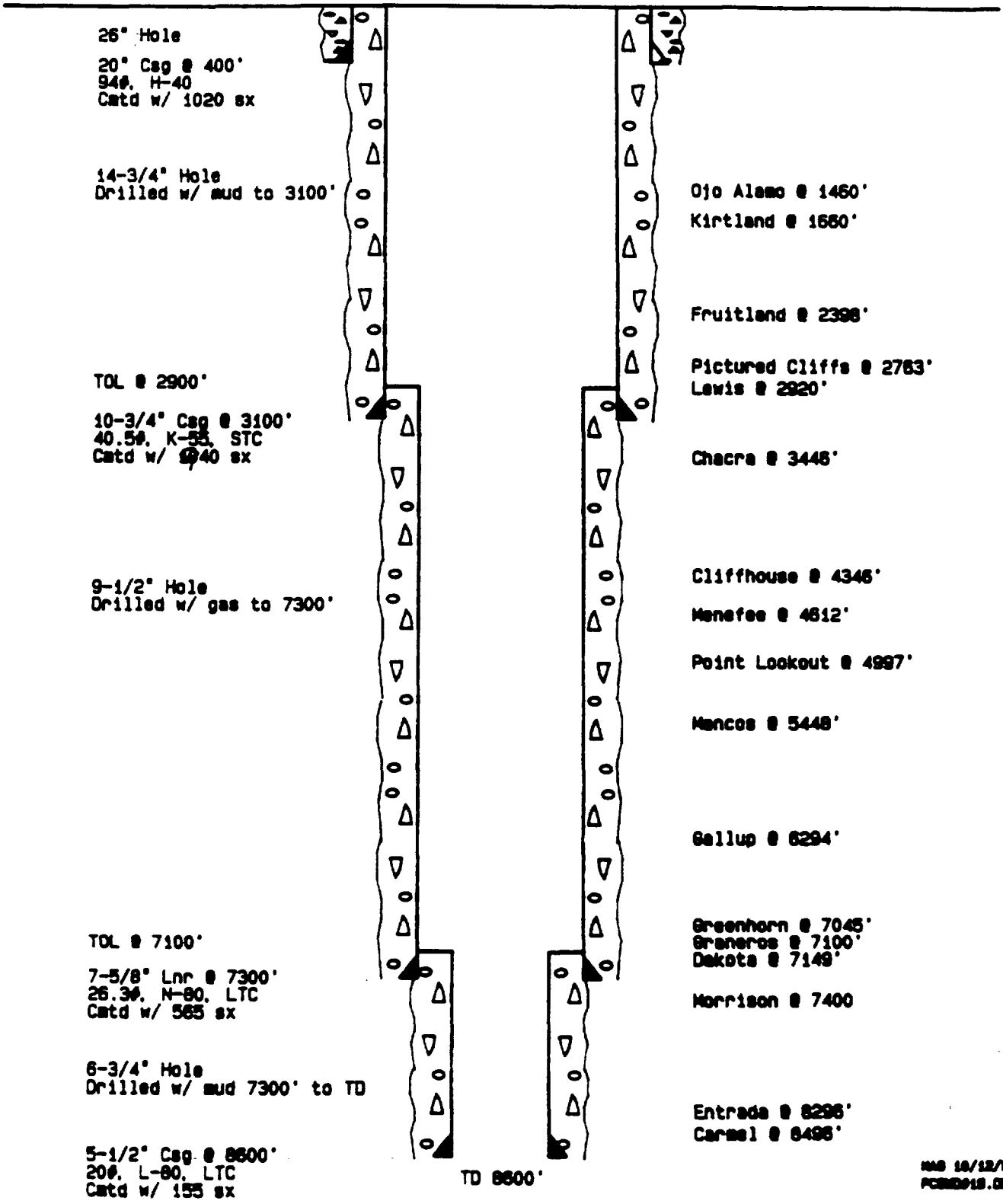
Mesa Ltd. Partnership
P. O. Box 2009
Amarillo, Texas 79189

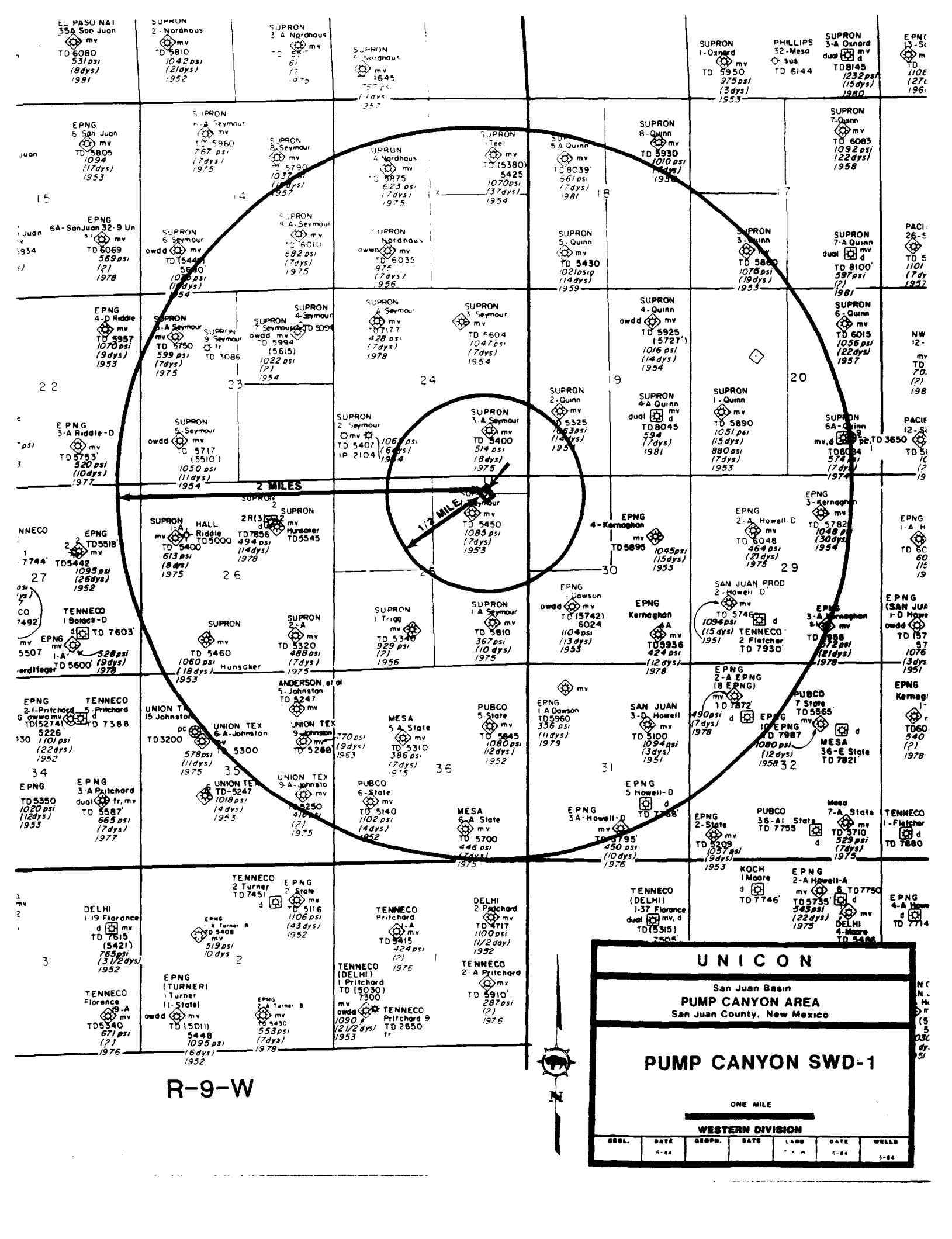
Meridian Oil, Inc.
P. O. Box 4289
Farmington, New Mexico 87499

PUMP CANYON SWD #1

SAN JUAN COUNTY, NEW MEXICO

PROPOSED




2 MILES
1/2 MILE
R-9-W
N
UNICON
San Juan Basin
PUMP CANYON AREA
San Juan County, New Mexico
PUMP CANYON SWD-1
ONE MILE
WESTERN DIVISION
GEOL.
DATE
GEOPH.
DATE
LAND
DATE
WELLS
DATE

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes
Effective 1-

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
UNION TEXAS PETROLEUM	Pump Canyon WD	1

Unit Letter	Section	Township	Range	County
A	25	31N	9W	San Juan

Actual Footage Location of Well:
400 feet from the North line and 1220 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5092	Jurassic-Morrison	Entrada	320 Acres

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

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

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

[ ] Yes [X] No If answer is "yes," type of consolidation _____

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

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

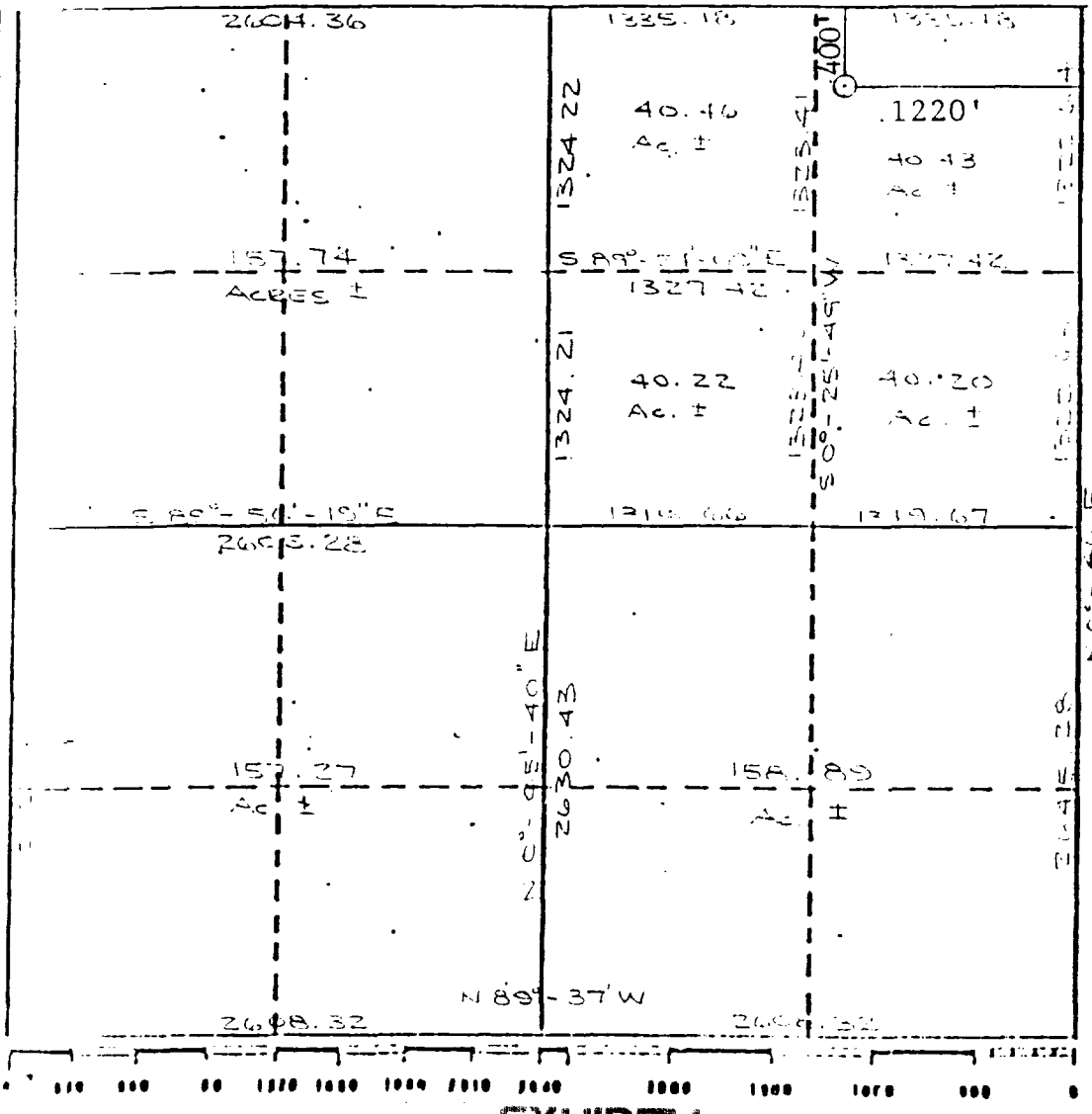


EXHIBIT 1

CERTIFICATION

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

Name: Ken White

Position: Regulatory Permit Coordina

Company: Union Texas Petroleum Corp

Date: January 31, 1989

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

CECIL B. TULLIS
NEW MEXICO
9672
REGISTERED PROFESSIONAL LAND SURVEYOR

Date Surveyed: September 8, 1988

Registered Professional Engineer and/or Land Surveyor

Cecil B. Tullis

Certificate No. 9672

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE 2-15-89

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed SWD X
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 2-13-89

for the Union Texas Petroleum Corp Pump Canyon SWD #1 A-25-31N-9W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approval - 2⅞" should be lined and anticipate that surface pressure will be around 1500 psi.

Yours truly,

Ernie Busch

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