BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION FOR AUTHORIZATION TO INJECT

LUSK WEST (DELAWARE) UNIT

Lea County, New Mexico

TABLE OF CONTENTS

APPLICATION

FORM C-108

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: [XX] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [XX] yes [ ] no

II. Operator: Pioneer Natural Resources USA, Inc.

Address: P.O. Box 3178, Midland, TX 79702

Contact party: Scott H. Lackey Phone: (915) 571-3976

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? [XX] yes [ ] no
If yes, give the Division order number authorizing the project R-10863.

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: Scott H. Lackey Title Operations Engineer

Signature: Scott H. Lackey Date: 12/11/97

* 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. Hearing Date: 2/6/97. Case Nos. 11, 703 and 11,704.

DISTRIBUTION: Original and one copy to Santa Fe, one

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.

INJECTION WELL DATA SHEET

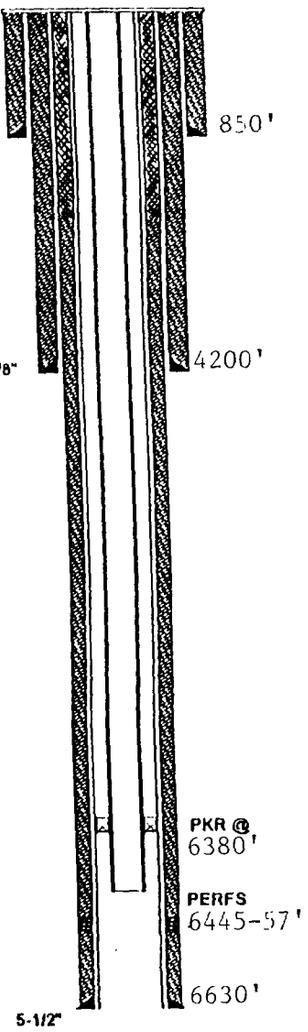
SECTION III

OPERATOR: Pioneer Natural Resources USA, Inc **LEASE:** LUSK DEEP UNIT "A"

WELL NO 23 WIW | SEC-20 | T-19-S | R-32-E

FOOTAGE LOCATION | SECTION | TOWNSHIP | RANGE

SCHEMATIC



WELL CONSTRUCTION DATA

1. SUFACE CASING

SIZE: 13-3/8 INCHES CEMENTED WITH: 675 SX

TOC: Surface FEET DETERMINED BY: Circulating

HOLE SIZE: 17-1/2 INCHES

2. INTERMIDIATE CASING

SIZE: 8-5/8 INCHES CEMENTED WITH: 1860 SX

TOC: Surface FEET DETERMINED BY: Circulating

HOLE SIZE: 12-1/4 INCHES

3. LONG STRING

SIZE: 5-1/2 INCHES CEMENTED WITH: 900 SX

TOC: Surface FEET DETERMINED BY: Circulating

HOLE SIZE: 7-7/8 INCHES

4. INJECTION INTERVAL 6445 FEET TO: 6457 FEET

(PERFORATED OR OPEN HOLE ; INDICATE WHICH)

"PERFORATED"

5. TOTAL DEPTH: 6630' FEET

6. TUBING SIZE

SIZE: 2-3/8 INCHES LINED WITH: IPC 505 - PLASTIC COATING

SET IN A: ARROW SET 1-XS, PKR PACKER AT: 6380 FEET:

OTHER DATA

A. IS THIS A NEW WELL DRILLED FOR INJECTION? XX YES _____ NO

IF NO, FOR WHAT PURPOSE WAS THE WELL ORIGINALLY DRILLED? _____

B. NAME THE INJECTION FORMATION: 6400' SAND (BRUSHY CANYON)

C. NAME THE FIELD OR POOL (IF APPLICABLE) LUSK WEST (DELAWARE)

D. HAS THE WELL EVER BEEN PERFORATED IN ANY OTHER ZONE(S)? LIST ALL SUCH PERFORATED INTERVALS AND GIVE PLUGGED DETAIL, I.E. SACKS OF CEMENT OR PLUG(S) USED. NO

E. GIVE THE NAME(S) AND DEPTH(S) OF ANY OVER OR UNDERLYING OIL OR GAS ZONES IN THIS AREA:

1. YATES 2600'-2800'	WATKINS YATES
	N.E. LUSK YATES
	S. LUSK YATES
2. DELAWARE 4600'-7100'	W. LUSK DELAWARE
	LUSK DELAWARE
3. BONE SPRING 8200'-8950'	WATKINS BONE SPRING
	LUSK BONE SPRING
	S. LUSK BONE SPRING
	E. LUSK BONE SPRING
4. WOLF CAMP 10100'-10700'	LUSK WOLFCAMP OIL
	E. LUSK WOLFCAMP OIL
5. STRAWN 11000'-11200'	LUSK STRAWN OIL
6. ATOKA 11200'-11400'	LUSK ATOKA GAS
7. MORROW 11500'-12000'	LUSK MORROW GAS
	N.W. LUSK MORROW GAS
	N. LUSK MORROW GAS

FORM C-108
SECTION III
APPLICATION FOR AUTHORIZATION
TO INJECT

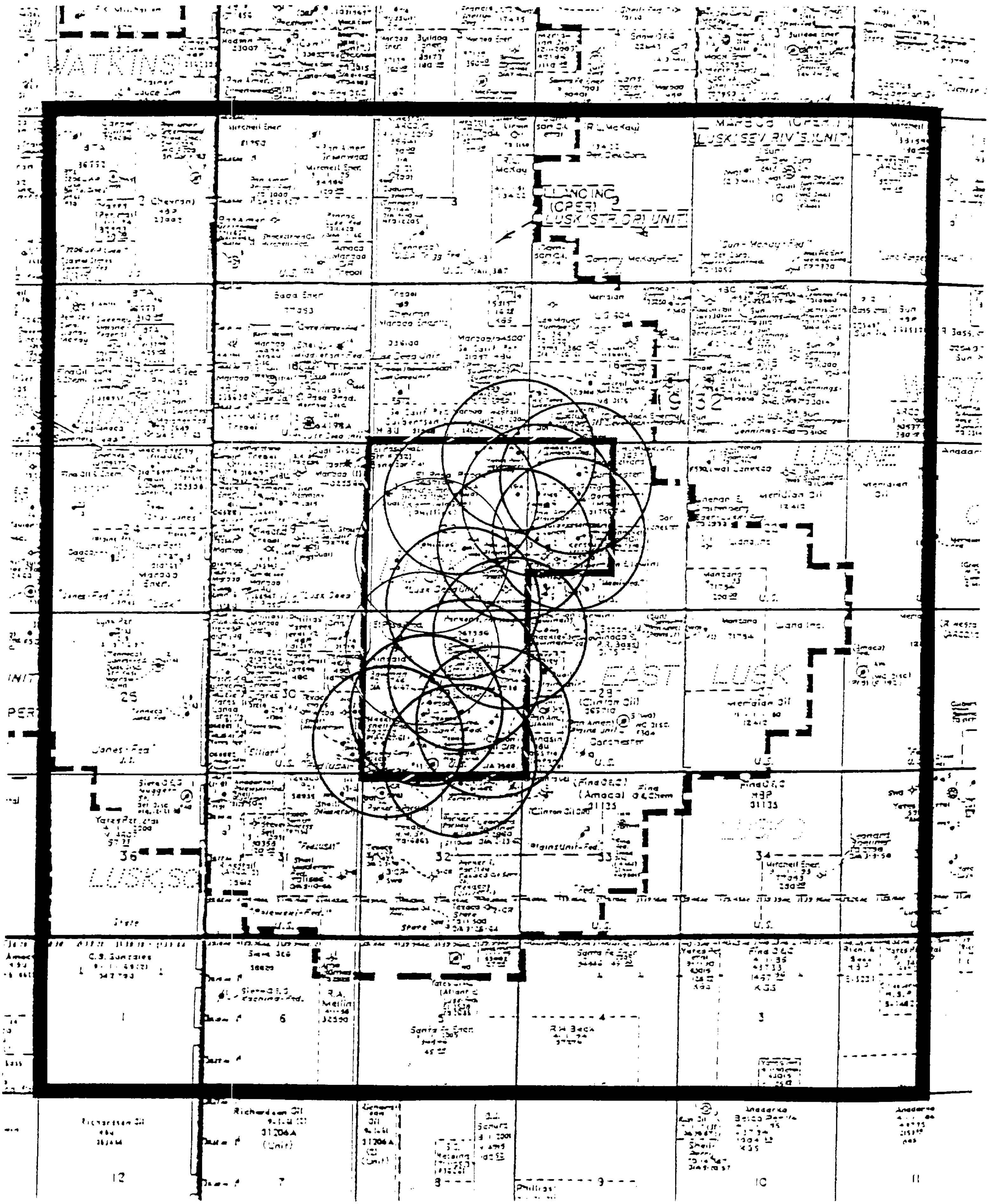
WATER INJECTION WELL

MAP OF AREA

SECTION V

LEA COUNTY, NEW MEXICO

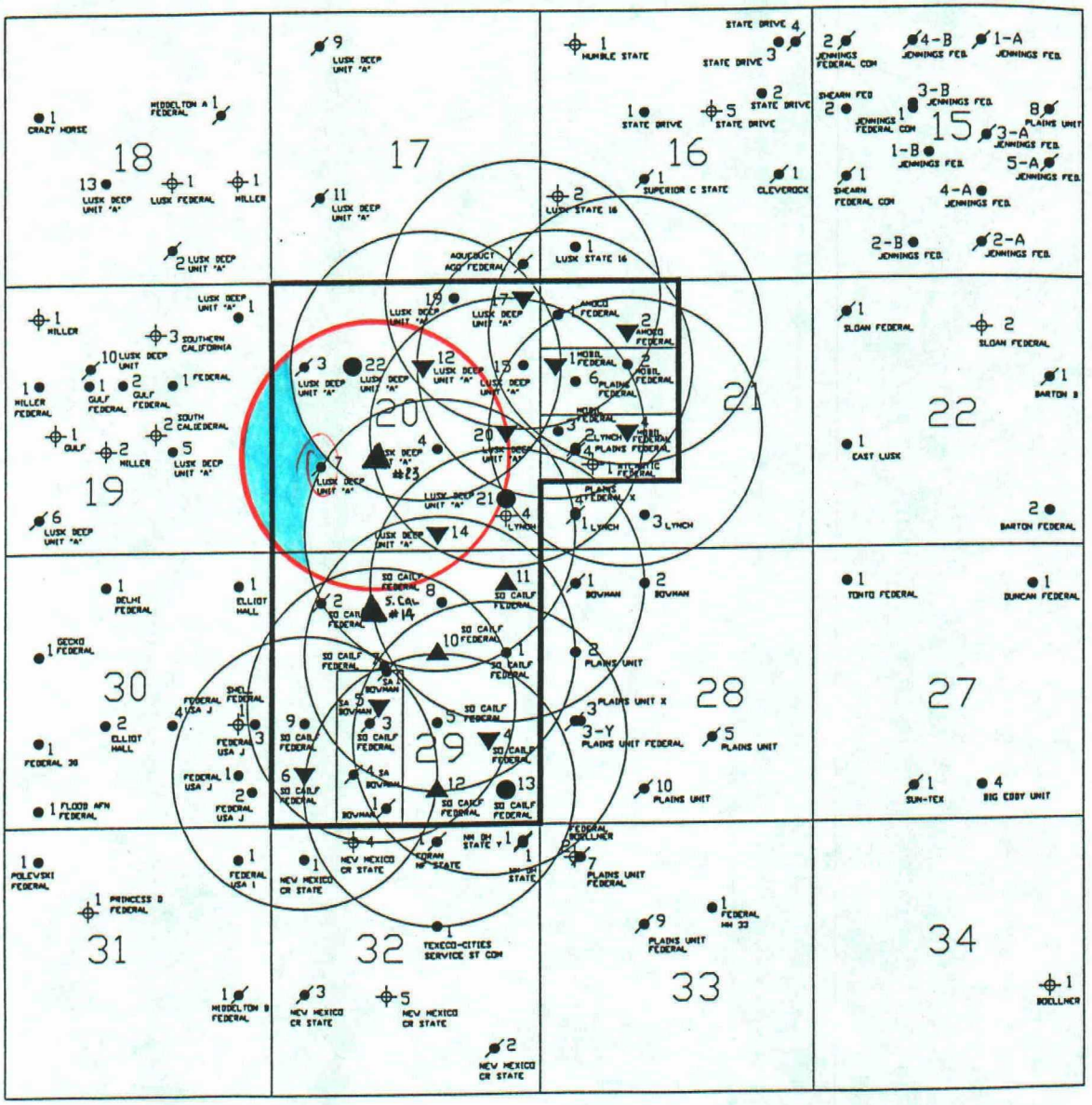
LAND PLAT OF TRACTS & LEASES COVERING UNIT AREA



LUSK WEST (DELAWARE)

LEA COUNTY, NEW MEXICO

LAND PLAT OF TRACTS & LEASES COVERING UNIT AREA



● PRODUCER

✓ PLUGGED & ABANDONED

⊕ DRY HOLE

▼ CONVERT TO INJECTOR

▲ DRILLED INJECTOR

● DRILLED PRODUCER

TABULATIONS OF WELL DATA

SECTION VI

INFORMATION REQUIRED UNDER SECTION VI WAS PREVIOUSLY SUBMITTED UNDER CASE NOS. 11,703 AND 11,704 ON FEBRUARY 6, 1997.

DATA SHEET ON PROPOSED OPERATIONS

SECTION VII

FORM C-108

SECTION VII

1) Proposed Average Daily Injection Rate - 400 BWIPD
   Proposed Maximum Daily Injection Rate - 900 BWIPD

2) This will be a closed system

3) Estimated Average Injection Pressure - 700 PSI
   Estimated Maximum Injection Pressure - 1280 PSI

4) See attached letter and chemical analysis

5) Does not apply.

Champion Technologies, Inc.

P.O. BOX 2187
HOBBS, NEW MEXICO 88240

Telephone (505) 393-7726

December 10, 1996

Parker & Parsley
P.O. Box 3178
Midland, Tx. 79702

Attn: Britt Hirth

Dear Mr. Hirth,

According to reports, Parker & Parsley is planning to inject water at the Lusk West Delaware lease. Water from the Seven Rivers formation is going to be commingled with the Delaware water. When mixed these two waters show to have a Calcium Sulfate scaling tendency, thus making these two water incompatible.

Champion Technologies is recommending a scale inhibitor be injected continuously into the commingled injection water at a treating rate of 15 to 25 ppm. This treatment will inhibit the Calcium Sulfate scale from depositing in the injection wells and improve the quality of the injection water to acceptable levels. Compatibility tests with scale inhibitors and the injection water should be performed before a scale inhibitor is put in place.

If you have any questions please contact me in the Hobbs office.

Regards,

Kenny Kearney

Kenny Kearney

FORM C-108
SECTION VII
ITEM #4

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. David Shrauner
P O Drawer E, Kermit, TX 79745

LABORATORY NO. 896141
SAMPLE RECEIVED 8-16-96
RESULTS REPORTED 8-21-96

COMPANY Parker & Parsley LEASE Pronghorn SWD
FIELD OR POOL Lusk
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from inlet to gunbarrel. 8-16-96
NO. 2 Produced water - taken from Southern California heater treater (water pump). 8-16-96
NO. 3 Produced water - taken from outlet from gunbarrel. 8-16-96
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1436	1.1718		
pH When Sampled				
pH When Received	6.19	6.18		
Bicarbonate as HCO_3	273	78		
Supersaturation as $CaCO_3$	0	8		
Undersaturation as $CaCO_3$	--	--		
Total Hardness as $CaCO_3$	58,000	83,000		
Calcium as Ca	19,200	28,400		
Magnesium as Mg	2,430	2,916		
Sodium and/or Potassium	61,402	66,136		
Sulfate as SO_4	960	384		
Chloride as Cl	134,936	160,503		
Iron as Fe	11.3	10.5		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	219,202	258,417		
Temperature °F.				
Carbon Dioxide, Calculated	301	86		
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.054	0.050		
Suspended Oil	--	--	1,027	
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Sulfate Scaling Tendency	None	None		
Calcium Sulfate Scaling Tendency	None	None		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The objective herein is to evaluate compatibility between these two waters. A careful study of the waters has revealed no evidence of any incompatibility, therefore, the mixing of these two waters would not be expected to cause any scaling potential or precipitation.

By Waylan C. Martin, M.A.

Form No. 3
FORM C-108
SECTION VII
ITEM #4

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. David Shrauner
P O Drawer E, Kermit, TX 79745

LABORATORY NO. 896140
SAMPLE RECEIVED 8-19-96
RESULTS REPORTED 8-21-96

COMPANY Parker & Parsley LEASE As listed
FIELD OR POOL Lusk
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Supply water - taken from Lusk Deep #7.
NO. 2 Produced water - taken from Southern California #5.
NO. 3 Produced water - taken from Southern California #7.
NO. 4 ____
REMARKS: 2. 6,400' 3. 4,700'

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0323	1.1784	1.1721	
pH When Sampled				
pH When Received	5.80	6.31	6.41	
Bicarbonate as HCO_3	488	51	54	
Supersaturation as $CaCO_3$	--	6	4	
Undersaturation as $CaCO_3$	10	--	--	
Total Hardness as $CaCO_3$	8,800	87,000	78,000	
Calcium as Ca	2,520	29,600	28,000	
Magnesium as Mg	608	3,159	1,944	
Sodium and/or Potassium	12,226	67,015	70,258	
Sulfate as SO_4	3,785	313	362	
Chloride as Cl	22,016	164,764	163,344	
Iron as Fe	60.8	2.4	5.2	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	41,643	264,902	263,962	
Temperature °F.				
Carbon Dioxide, Calculated	1,269	42	35	
Dissolved Oxygen,				
Hydrogen Sulfide	74.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.200	0.0	0.0	
Suspended Oil	0.200	0.049	0.050	
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Carbonate Scaling Tendency	None	None	None	
Calcium Sulfate Scaling Tendency	Moderate	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

FORM C-108
SECTION VII
ITEM #4

By ____

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 896140 (Page 2)

TO: Mr. David Shrauner
P O Drawer E, Kermit, TX 79745

SAMPLE RECEIVED 8-19-96
RESULTS REPORTED 8-21-96

COMPANY Parker & Parsley LEASE As listed
FIELD OR POOL Lusk
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Composite Southern California water (equal mix of well #5 & well #7).
NO. 2 Hypothetical combination of 25% Lusk #7 & 75% composite Southern California.
NO. 3 Hypothetical combination of 50% Lusk #7 & 50% composite Southern California.
NO. 4 Hypothetical combination of 75% Lusk #7 & 25% composite Southern California.

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1753			
pH When Sampled				
pH When Received	6.36			
Bicarbonate as HCO_3	53			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	82,500			
Calcium as Ca	28,800	22,230	15,660	9,090
Magnesium as Mg	2,552			
Sodium and/or Potassium	68,637			
Sulfate as SO_4	338	1,200	2,062	2,923
Chloride as Cl	164,054	128,545	93,035	57,526
Iron as Fe	3.8			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	264,432			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.050			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Sulfate Scaling Tendency	None	Mild	Moderate	Severe

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks Letter of recommendation attached.

By _____
Waylan C. Martin, M.A.

Form No. 3
FORM C-108
SECTION VII
ITEM #4

Martin Water Laboratories, Inc.
WATER CONSULTANTS SINCE 1953
BACTERIAL AND CHEMICAL ANALYSES

P. O. BOX 1468
MONAHANS, TEXAS 79756
(915) 943-3234 or 563-1040

709 W. INDIANA
MIDLAND, TEXAS 79701
(915) 683-4521

August 21, 1996

Mr. David Shrauner
Parker & Parsley
P.O. Drawer "E"
Kermit, TX 79745

Subject: Recommendations relative to laboratory #896140 (8-21-96), Lusk Deep #7 and Southern California #5 and #7.

Dear Mr. Shrauner:

The objective herein is to evaluate compatibility between the waters from Lusk Deep #7 and both Southern California #5 and #7. A careful study in this regard has revealed the following:

1. We have made hypothetical combinations of these waters and find that essentially any mixture of these waters would be expected to result in a calcium sulfate scaling potential. However, as the proportion of the water from Lusk Deep #7 increases, we find a proportionate increase in calcium sulfate scaling potential. The most severe scaling potential resulted when we combined 75 percent of the water from Lusk Deep #7 with the other two waters.

2. The results reveal the presence of a slight amount of iron in both of the Southern California wells and hydrogen sulfide in Lusk Deep #7. This evidence indicates iron sulfide precipitation can be expected on the mixing of these waters. It should be understood that we would anticipate variations in the iron content in Southern California #5 and #7 and therefore variations in the amount of iron sulfide that would precipitate when mixed with Lusk Deep #7.

3. This study has revealed no evidence of any other potential incompatibility.

Based on the evidence revealed in this study, we would conclude that these waters are not compatible, and we would recommend the waters not be mixed on the surface nor should Lusk Deep #7 be injected into the zone represented by the Southern California wells.

Yours very truly,

Waylan C. Martin

WCM/mo

FORM C-108
SECTION VII
ITEM #4

GEOLOGICAL DATA SHEET

SECTION VIII

FORM C-108 SECTION VIII

Geological Summary

The Lusk West Delaware field is located in Lea county, New Mexico in TWN 19S RGE 32E. As of April 30, 1996 there were 31 (seven inactive) wells producing approximately 9,441 BBLS/Mo, 16,950 MCF/Mo and 13,480 BW/Mo. The field's current producing gas-oil ratio is at 1,795 SCF/BBL as of April 1996. Cumulative production as of April 1996 for the field is 2,106.3 MBBLS, 4,367.3 MMCF and 1,789.8 MBW. Production comes mainly from the 6400' zone in the Delaware Brushy Canyon. There are several other Delaware Brushy Canyon zones including the 4900' sand, 5500' sand, 6650' sand, 7050' sand and the 7200' sand. These zones have contributed about 587 MBBLS & 1,029.2 MMCF. The proposal is to only Waterflood the 6400' sand interval. The wells that contributed to the 6400' zone have produced about 1,519 MBBLS, 3,338.1 MMCF and 1,281 MBW.

The 6400' zone is a deep marine turbidite fan system that runs primarily north-south along the slope break. The sandstone body varies in thickness from 0 to 35+ feet. The sand averages about 22 feet thick. A mineralogic and Petrographic analysis was performed by Western Atlas's Core Laboratories on the Damson Oil Corp. Southern California Federal #7. The following is the results of their analysis.

The sandstone is described as a subarkosic feldspathic sandstone that is fairly well sorted, ranges from very angular to rounded, is mature in texture, is random in grain orientation and has point, floating, straight, concavo-convex grain contacts. The sandstone is primarily composed of monocrystalline quartz, potassium feldspar, dolomite rock fragments, plagioclase and polycrystalline quartz. There is no rock matrix present. The cement is common to abundant, is finely disseminated with fine crystalline dolomite and patches of anhydrite. There is an abundance of intergranular pores, uncommon grain-moldic pores, rare intergranular and very small pores associated with dolomite rock fragments and dolomite cements. No authigentic clays are present, there is no evidence of sedimentary structures, the pore network is very well interconnected and fractures are not present.

The 6400' Delaware sand exhibits both stratigraphic and structural trapping mechanisms and characteristics. The Lusk West field trends structurally down dip in the easterly direction. There are two visible structural high's setting up a nose in which the thickest portion of the sand body is present. There appears to be an oil-water contact at approximately -2,900' on the down dip side. The up dip extent of field is delineated by sandstone fans that thins in a westerly direction to zero. These fans appear separated by a tight clay rich margin that trends SE to NW across the southern half of Sec. 20.

INJECTION WELL STIMULATION PROGRAM

SECTION IX

FORM C-108

SECTION IX

There will be a small clean up acid job only for each injection well.

LOGGING AND TEST DATA

SECTION X

WELL LOGS WILL BE SUBMITTED UPON COMPLETION OF DRILLING OPERATIONS

CHEMICAL ANALYSIS OF FRESH WATER

SECTION XI

FORM C-108

SECTION XI

There is no known beneficially used fresh water. Water from the Santa Rosa formation is not of sufficient supply and areal extent to justify drilling of water wells. Livestock is watered by private co-ops and pipeline.

AFFIRMATIVE STATEMENT

SECTION XII

FORM C-108

SECTION XII

Not applicable due to nature of the Secondary Recovery application, this section does not apply.

PROOF OF NOTICE

SECTION XIII

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Bureau of Land Management
2909 West Second St.
Roswell, NM 88201

4a. Article Number

P 085 637 581

4b. Service Type

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery 11-26-97

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Phillips Petroleum Co.
Frank Phillips Bldg.
Bartlesville, OK 74004

4a. Article Number

P 963 560 110

4b. Service Type

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

Shirley Thomas

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form **3811**, December 1994 NOV 2 9 1994 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

PIONEER
NATURAL RESOURCES USA, INC.

November 25, 1997

Bureau of Land Management
2909 West Second St.
Roswell, NM 88201

RE: Application for Authorization to Inject
Lusk West (Delaware) Unit
Lea County, New Mexico

Gentlemen:

Pioneer Natural Resources USA, Inc. is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil and gas.

The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD and 1280 PSI, respectively. The proposed injectors will be called the Southern California Federal #14, which will be located in Unit C, 990' FNL & 1880' FWL, Section 29, T19S, R32E and the Lusk Deep Unit "A" #23, which will be located in Unit K, 1980' FSL & 1980' FWL, Section 20, T19S, R32E, both in Lea County, NM.

The Oil Conservation Division requires that the attached information be sent to all offset operators and the surface owner.

Any questions concerning this application should be forwarded to the attention of Scott H. Lackey at the address above or call (915) 571-3976.

Sincerely,

Pioneer Natural Resources USA, INC.

Jeanie Dodd

Jeanie Dodd
Engineering Tech

Enclosures

PIONEER
NATURAL RESOURCES USA, INC.

November 25, 1997

Phillips Petroleum Co.
Frank Phillips Bldg.
Bartlesville, OK 74004

RE: Application for Authorization to Inject
Lusk West (Delaware) Unit
Lea County, New Mexico

Gentlemen:

Pioneer Natural Resources USA, Inc. is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil and gas.

The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD and 1280 PSI, respectively. The proposed injector will be called the Lusk Deep Unit "A" #23, which will be located in Unit K, 1980' FSL & 1980' FWL, Section 20, T19S, R32E, Lea County, NM.

The Oil Conservation Division requires that the attached information be sent to all offset operators and the surface owner.

Any questions concerning this application should be forwarded to the attention of Scott H. Lackey at the address above or call (915) 571-3976.

Sincerely,

Pioneer Natural Resources USA, INC.

Jeanie Dodd

Jeanie Dodd
Engineering Tech

Enclosures

P.O. BOX 3178 · MIDLAND, TEXAS 79702-3178 · 303 W. WALL, SUITE 101 · MIDLAND, TEXAS 79701 · MAIN: (915) 683-4768 · FAX: (915) 571-5063

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1

weeks.

Beginning with the issue dated

November 30 1997

and ending with the issue dated

November 30 1997

Kathi Bearden

Publisher

Sworn and subscribed to before me this 28th day of

November 1997

Jodi Henson

Notary Public.

My Commission expires
October 18, 2000
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
November 30, 1997
NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Pioneer Natural Resources USA, Inc., P.O. Box 3178, Midland, TX is applying to the New Mexico Oil Conservation Division for a permit to inject into a formation which is productive of oil and gas.

The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD, and 1280 PSI, respectively. The proposed injector will be called the Lusk Deep Unit "A" #23, which will be located in Unit K, 1980' FSL & 1980' FWL, Section 20, T19S, R32E, Lea County, NM.

Any questions concerning this application should be forwarded to the attention of Scott H. Lackey at the address above or call (915) 571-3976.

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 from this publication.

Published in the Hobbs News Sun November 30, 1997.
#15585

a0107472000 01514570

Parker & Parsley
P.O. Box 3178
a/c 057974
MIDLAND, TX 79701

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons
P... 1980
Hobbs, NM 88241

FORM APPROVED
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 Injector

2. Name of Operator
Pioneer Natural Resources USA, Inc.

3. Address and Telephone No.
P O Box 3178 Midland, TX 79702 915/571/3937

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Unit K, 1980' FSL & 1980' FWL, Sec. 20, T19S, R32E

5. Lease Designation and Serial No.
NM LC065710A

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
Lusk West (Delaware) Unit

8. Well Name and No.
011

9. API Well No.
30-025-34173

10. Field and Pool, or exploratory Area
Lusk Delaware, West

11. County or Parish, State
Lea NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Drilling	☐ 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.)*

Original Well NAme: Lusk Deep Unit "A" #23

See Attached Chronology Report

ACCEPTED FOR RECORD
ORIG. SGD.) DAVID R. GLASS
DEC 10 1997
BLM

14. I hereby certify that the foregoing is true and correct
Signed Deana Todd Title Engineering Tech Date 12/3/97

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
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

PERC

WELL CHRONOLOGY REPORT

WELL NAME : LUSK WEST DELAWARE UNIT #011 WELL ID # : 924998011

OPERATOR : PIONEER NATURAL RESOURCES DISTRICT :

FIELD : LUSK WEST (DELAWARE) LOCATION : UL K, 1980' FSL & 1980' FWL, SEC. 20, T19S, R

COUNTY & STATE : LEA NM CONTRACTOR :

NWI WI% : 90.93620 AFE# : 317070 API# : 30-025-34173 PLAN DEPTH : 7,200 SPUD DATE : 11/10/97

DHC : $287,350 CWC : $132,100 AFE TOTAL : $419,450 FORMATION : BRUSHY CANYON

REPORT DATE : 11/11/97 MD : 325 TVD : 0 DSS : 1 DOL : 0 MW : 8.3 VISC : 28

DAILY DETAILS :

1ST REPORT:
****

DIRECTIONS: GO WEST OUT OF HOBBS, NM ON HWY 62-180 FOR 37 MILES TO NM HWY 243, TURN RT ON 243 FOR 4.7 MILES. TURN RIGHT ON THE LUSK FIELD ROAD. GO 4.3 MILES, THEN TURN RIGHT (EAST) FOR 0.8 MILES, THEN TURN NORTH 0.5 MILES TO RIG.

MIRU LAKOTA DRLG CO. RIG #4. SPUDDED @ 6:00 PM ON 11/10/97.

REPORT DATE : 11/12/97 MD : 325 TVD : 0 DSS : 2 DOL : 1 MW : 8.3 VISC : 28

DAILY DETAILS : REPAIRING ROTARY.

REPORT DATE : 11/13/97 MD : 795 TVD : 0 DSS : 3 DOL : 2 MW : 8.5 VISC : 29

DAILY DETAILS : FINISH REPAIRING ROTARY TABLE, DRLG FROM 325' TO 682'. SURVEY 1DEG @ 682', DRLG FROM 682' TO 795'. ART: DRLG.

REPORT DATE : 11/14/97 MD : 850 TVD : 0 DSS : 4 DOL : 3 MW : 9.8 VISC : 28

DAILY DETAILS : DRLG 795' TO 850', SURVEY 1 1/2 DEG @ 850'. CIRC & PUMPED SWEEP. TOH. RU BULL ROGERS CSG CREW. RUN 19 JTS 13 3/8" CSG. RU BJ, CMT CSG. CIRC 240 SX CMT. RAN 7 CENT. PLUG DOWN @ 4:15 PM 420 PSI. FLOAT HELD. CUT OFF CSG & WELDED ON WELLHEAD. NU. ART: DRLG CMT.

CSG & CMT DETAIL:

1-13 3/8" TEX PATTERN SHOE J55 STC	1.00
1-13 3/8" SHOE JT. 54.5# J55 STC	45.20
19-13 3/8" 54.5# J55 STC CSG.	809.07
TOTAL CSG	855.27
CUT OFF	24.27
CSG LEFT IN HOLE	831.00
KB	17.00
CSG LANDED KB	848.00

RAN 7 CENT. LOCKED 1ST IN PLACE W/LIMIT RING JUST ABOVE GUIDE SHOE, FOLLOWED BY ONE EVERY 4TH COLLAR. #19, 15, 11, 7, 4 & 2.
CMT W/475 SX 35.65 POZ CL"C" + 6% GEL + 5% SALT + .25#/SX CELLOFLAKES, WT 12.7 PPG, YIELD 1.94 CUFT/SK, WTR - 10.48 GAL/SX. TAIL: W/200 SX "C" NEAT + 2% CACL2 + 2.5#/SX CELLOFLAKES. WT 1444.86 PPG, YIELD 1.32 CUFT/SX, WTR - 6.32 GAL/SX.

REPORT DATE : 11/15/97 MD : 1,880 TVD : 0 DSS : 5 DOL : 4 MW : 10.0 VISC : 29

DAILY DETAILS : DRLG CMT, INSTALL ROTARY HEAD. DRLG 850' TO 979'. SURVEY 1 DEG @ 979'. DRLG 979' TO 1468'. SURVEY 3/4 DEG @ 1426'. DRLG 1468' TO 1880'. ART: DRLG W/FULL RETURNS.

PERC

WELL CHRONOLOGY REPORT

REPORT DATE : 11/16/97 MD : 2,434 TVD : 0 DSS : 6 DOL : 5 MW : 9.9 VISC : 29

DAILY DETAILS : DRLG 1877' TO 1939'. SURVEY 2 1/2 DEG @ 1899'. DRLG 1939' TO 2127', SURVEY 2 1/2 DEG @ 2085'. DRLG 2127' TO 2220', SURVEY 3 1/2 DEG @ 2189'. DRLG 2220' TO 2376', SURVEY 2 3/4 DEG @ 2399'. DRLG 2376' TO 2434'. ART: DRLG W/FULL RETURNS.

REPORT DATE : 11/17/97 MD : 2,751 TVD : 0 DSS : 7 DOL : 6 MW : 10.0 VISC : 29

DAILY DETAILS : DRLG 2434' TO 2439'. SR. DRLG 2439' TO 2751'. DRLG 14' TO 16' P/HR W/FULL RETURNS.

REPORT DATE : 11/18/97 MD : 3,460 TVD : 0 DSS : 8 DOL : 7 MW : 10.0 VISC : 29

DAILY DETAILS : DRLG 2751' TO 2782'. SR. DRLG 2782' TO 2844'. SURVEY 2 1/4 DEG @ 2844'. DRLG 2844' TO 2990'. LOST FULL RETURNS @ 2990'. (DRLG BREAK 2990' TO 2993'). DRY DRLG 2990' TO 3460'. DRLG W/NO RETURNS. PUMPED 225 BBLS LCM IN SWEEPS (24 HRS.) LOST SURVEY WAS 2 1/4 DEG @ 3242'.

REPORT DATE : 11/19/97 MD : 4,205 TVD : 0 DSS : 9 DOL : 8 MW : 8.5 VISC : 28

DAILY DETAILS : DRLG 3460' TO 3487'. SR. DRLG 3487' TO 3723'. SURVEY 2 1/4 DEG @ 3723'. DRLG 3723' TO 4205'. CIRC. TD 12 1/4" HOLE @ 7:00 AM. DRLG 2990' TO 4205' WITH NO RETURNS, LOSS 200 + BBLS. MUD IN SWEEPS. ART: CIRC. FOR SHORT TRIP. NO TIGHT SPOTS FROM 299P' TO TD. INCURRED WHILE DRLG.

REPORT DATE : 11/20/97 MD : 4,205 TVD : 0 DSS : 10 DOL : 9 MW : 8.5 VISC : 28

DAILY DETAILS : CIRC. SHORT TRIP. CIRC, TOH & LD 7-8" DC'S. RU CSG CREW & RAN CSG. & CMT. BUMP PLUG @ 1:30 AM ON 11/19/97 960 PSI. OPEN DV TOOL 950 PSI. PUMPED 30 BBLS F/WATER. RU ON RIG PUMP. PUMPED 200+ BBLS F/WATER. SD WOC 4 HRS. ON 11/20/97 PUMPED 2ND STAGE CMT. BUMP PLUG CLOSING DV TOOL 1600 PSI. RD BJ. WOC. CUT OFF CSG. SET SLIPS, INSTALL CSG HEAD. NU BOP.

CSG & CMT DETAIL:

1-8 5/8" GUIDE SHOE STC	1.45
1-8 5/8" 32# J55 CSG STC	43.93
1-8 5/8" FLOAT COLLAR STC	1.20
35-8 5/8" 32# J55 CSG	1539.39
1-8 5/8" DV TOOL	2.55
10-8 5/8" 32# J55 CSG	482.48
49-8 5/8" 24# J55 STC	2137.76
TOTAL CASING	4208.76
CUT OFF	21.76
CASING LEFT IN HOLE	4187.00
KB	17.00
CASING LADED KB	4204.00

RAN 2 CENTERLIZERS: RAN 95 JTS. 8 5/8" CSG THREAD LOCKED SHOE, FLOAT COLLAR, 3 JTS. CSG., DV TOOL @ 2620.29'.
CMT 1ST STAGE: W/685 SX 50-50 POZ CLASS C + 10% GEL + .5% SALT, 11.92 PPG, YIELD. TAIL W/200 SXS CLASS C NEAT + 1% CACL 14.81 PPG, YIELD. 2ND STAGE: W/825 SXS 50-50 POZ CLASS C + 10% GEL + 5% ALT, 11.92 PPG, YIELD 2.35. TAIL W/150 SX CLASS C NEAT + 2% CACL2 14.81 PPG YIELD 1.33. FLOAT HELD OK.

PERC

WELL CHRONOLOGY REPORT

REPORT DATE : 11/21/97 MD : 4,505 TVD : 0 DSS : 11 DOL : 10 MW : 8.4 VISC : 28

DAILY DETAILS : NU BOP, TESTING CSG & RAMS TO 600 PSI (OK). TIH. DRLG CMT & DV TOOL. TIH. DRLG OUT CMT & FLOAT COLLAR & SHOE. TESTED CSG TO 1000 PSI. OK. DRLG NEW FORMATION 4205' TO 4263'. RAN SURVEY 2 DEG @ 4231'. DRLG 4263' TO 4505'. ART: DRLG W/FULL RETURNS.

REPORT DATE : 11/22/97 MD : 5,145 TVD : 0 DSS : 12 DOL : 11 MW : 8.0 VISC : 28

DAILY DETAILS : SR, DRLG 4505' TO 4732'. SURVEY 2 1/2 DEG @ 4701'. DRLG 4732' TO 5145'. ART: DRLG W/FULL RETURNS.

REPORT DATE : 11/23/97 MD : 5,820 TVD : 0 DSS : 13 DOL : 12 MW : 8.4 VISC : 28

DAILY DETAILS : DRLG 5145' TO 5233'. SR & SURVEY 1 1/4 DEG @ 5190'. DRLG 5233' TO 5660'. SURVEY 2 DEG @ 5660'. DRLG 5660' TO 5820'. ART: DRLG W/FULL RETURNS.

REPORT DATE : 11/24/97 MD : 6,350 TVD : 0 DSS : 14 DOL : 13 MW : 8.5 VISC : 36

DAILY DETAILS : DRLG 5820' TO 5831'. SR. DRLG 5831' TO 6139'. SURVEY 2 DEG @ 6139'. DRLG 6139' TO 6350'. ART: DRLG W/FULL RETURNS.

REPORT DATE : 11/25/97 MD : 6,630 TVD : 0 DSS : 15 DOL : 14 MW : 8.7 VISC : 36

DAILY DETAILS : DRLG 6350' TO 6358'. SR. DRLG 6358' TO 6630'. CIRC 1 HR. SHORT TRIP. CIRC 1 3/4 HRS. RU & LDDP. ART: TD @ 6630' @ 11:30 PM ON 11/24/97.

REPORT DATE : 11/26/97 MD : 6,630 TVD : 0 DSS : 16 DOL : 15 MW : 8.7 VISC : 36

DAILY DETAILS : LD DP & DC'S. RU HLS & LOG WELL. RU & RUN 5 1/2" CSG. RU BJ, CEMENT, ND BOP. CUT OFF CSG & WELD ON 5 1/2" HEAD. JET PITS. PLUG DOWN @ 11:00 PM ON 11/25/97. FLOAT HELD. CIRC 31 BBLS CMT TO PIT. RELEASE RIG AT 7:00 AM ON 11/26/9.

CASING DETAIL:

1-5 1/2" GUIDE SHOE	.75
1-5 1/2" CSG SHOE JT 15.50 J55 LTC	32.94
1-5 1/2" FLOAT COLLAR	1.50
152- 5 1/2" 15.50# J55 LTC CSG	6591.91
TOTAL CASING	6632.10
CUT OFF	19.10
CASING LEFT IN HOLE	6613.00
KB	17.00
CASING LANDED KB	6630.00

RAN 6 CENTERLIZERS: CENTERLIZER ON JT #150, 142, 138, 134, 130. THREADLOCKED SHOE, FLOAT JT, FLOAT COLLAR & BTM TWO JTS.

CEMENT DETAIL:

CEMENTED W/900 SX 50-50 POZ CL"C" + 2% GEL + 5% FL62, WT = 11,92 PPG, YIELD 1.25 CU FT/SX

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Pioneer Naural Resources USA, Inc. P.O. Box 3178 Midland, TX 79702	036324
	3 Reason for Filing Code: Property Name CH Eff. 9/1/97

4 API Number	5 Pool Name	6 Pool Code
30-0 25-34173	Lusk (Delaware) West	41540
7 Property Code	**8 Property Name**	**9 Well Number**
022063	Lusk West (Delaware) Unit (Formally Lusk Deep Unit "A" #23W	011

II. 10 Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
K	20	19S	32E		1980	South	1980	West	Lea

11 Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
F	P - Drilling				

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
022628	Texas-New Mexico Pipeline Co. P. O. Box 2528 Hobbs, NM 88240	2086810	O	UL K Sec 20, T19S, R32E, Tank Battery
009171	GPM Gas Corporation 4001 Penbrook Odessa, TX 79762	2086830	G	UL K Sec 20, T19S, R32E, Tank Battery

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2086850	Unit J, Sec. 20, T19S, R32E Tank Battery

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations	30 DHC, DC, MC

31 Hole Sie	32 Casing & Tubing Size	33 Depth Set	34 Sacks Cement

VI. Well Test Data

35 Date New Oil	36 Gas Delivery Date	37 Test Date	38 Test Length	39 Tbg. Pressure	40 Csg. Pressure
41 Choke Size	**42 Oil**	**43 Water**	**44 Gas**	**45 AOF**	**46 Test Method**

47 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Jeanie Dodd
Printed name: Jeanie Dodd
Title: Engineering Tech
Date: 11/13/97
Phone: 915/571-3937

OIL CONSERVATION DIVISION

Approved by: Chris Williams
Title: DISTRICT 1 SUPERVISOR
Approval Date: DEC 11 1997

47 If this is a change of operator fill in the OGRID number and name of the previous operator

Form 3160-3
(July 1992)

N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM LC065710A

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

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

7. UNIT AGREEMENT NAME: Lusk Deep Unit "A"

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER [X] WIW SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: 23 WIW

2. NAME OF OPERATOR: Pioneer Natural Resources USA, Inc.

9. API WELL NO.: 30-025-34173

3. ADDRESS AND TELEPHONE NO.: P.O. Box 3178 Midland, TX 79702 915 571-3976

10. FIELD AND POOL, OR WILDCAT: Lusk Delaware, West

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: UL - K, 1980' FSL & 1980' FWL , Sec. 20, T19S, T32E
At proposed prod. zone: Same As Above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20, T19S, R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 40 miles West-Southwest of Hobbs, NM

12. COUNTY OR PARISH: Lea

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980'

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1360'

19. PROPOSED DEPTH: 7200'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF,RT, GR, etc.): GR 3574'

22. APPROX. DATE WORK WILL START*: December 27, 1997

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8", J-55	54.5#	~~850'~~	675 sx
12 1/4"	8 5/8", J-55	24# & 32#	4200'	1860 sx - Two Stage
7 7/8"	5 1/2", K-55	15.5#	7200' TD	900 sx

SEE ATTACHED

P-S - WIW
36324
18278
41540
10/29/97
30-025-34173

RECEIVED
1997 SEP -8 A 9:53
BUREAU OF LAND MGMT.
ROSWELL OFFICE

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED [signature] TITLE Engineer Supervisor DATE 9/2/97

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE 10-22-97

*See Instructions 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.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
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

5. Lease Designation and Serial No.
NM LC065710A

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
Lusk Deep Unit "A"

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
23 WI

2. Name of Operator
Pioneer Natural Resources USA, Inc.

9. API Well No.
30-025-3417

3. Address and Telephone No.
P. O. Box 3178, Midland, TX 79702 915 571-3937

10. Field and Pool, or Exploratory Area
Lusk Delaware, West

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
UL - K, 1980' FSL & 1980' FWL, Sec. 20, T19S, R32E

11. County or Parish, State
Lea, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[X] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other _____	[ ] 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.)*

(1) Disregard requested approbal for the injection line construction. We will conduct an archaeological survey for the injection line at a later date.

(2) Request approval for well pad and access road construction.

(3) Request setting 825' of 13 3/8" Surface Casing in place of 850' of 13 3/8" Surface Casing.

RECEIVED
1997 OCT 21 A 11:06
BUREAU OF LAND MGMT.
NEW MEXICO RESOURCE AREA

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

Signed [signature] Title Operations Engineer Date 10/20/97

(This space for Federal or State office use)

Approved by [illegible] Title ADM. MINERALS Date 10-22-97
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

ATTACHMENT
Lusk Deep Unit "A" #23 WIW

The operator proposes to drill to a depth sufficient to test all of the Delaware Sands for oil. If productive, 5 ½" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific plans, as per On Shore Oil & Gas Order #1 are included in the following attachments

DRILLING PROGRAM

Exhibit #1 - BOPE Schematic

SURFACE USE AND OPERATING PLAN

Exhibit #2 - Location & Elevation Plat
Exhibit #3 - Lease Road & Topo Plat
Exhibit #4 - Highway Access Plat
Exhibit #5 - Existing Wells in One Mile Radius
Exhibit #6 - Water Injection System - Schematic
Exhibit #7 - Water Injection Distribution Lines
Exhibit #8 - Water Injection System - Topo Plat
Exhibit #9 - Drilling Rig Layout - Schematic

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34173	41540	LUSK Delaware, West

Property Code	Property Name	Well Number
018278	LUSK DEEP UNIT "A"	23W

OGRID No.	Operator Name	Elevation
036324	Pioneer Natural Resources USA, Inc.	3574

Surface Location

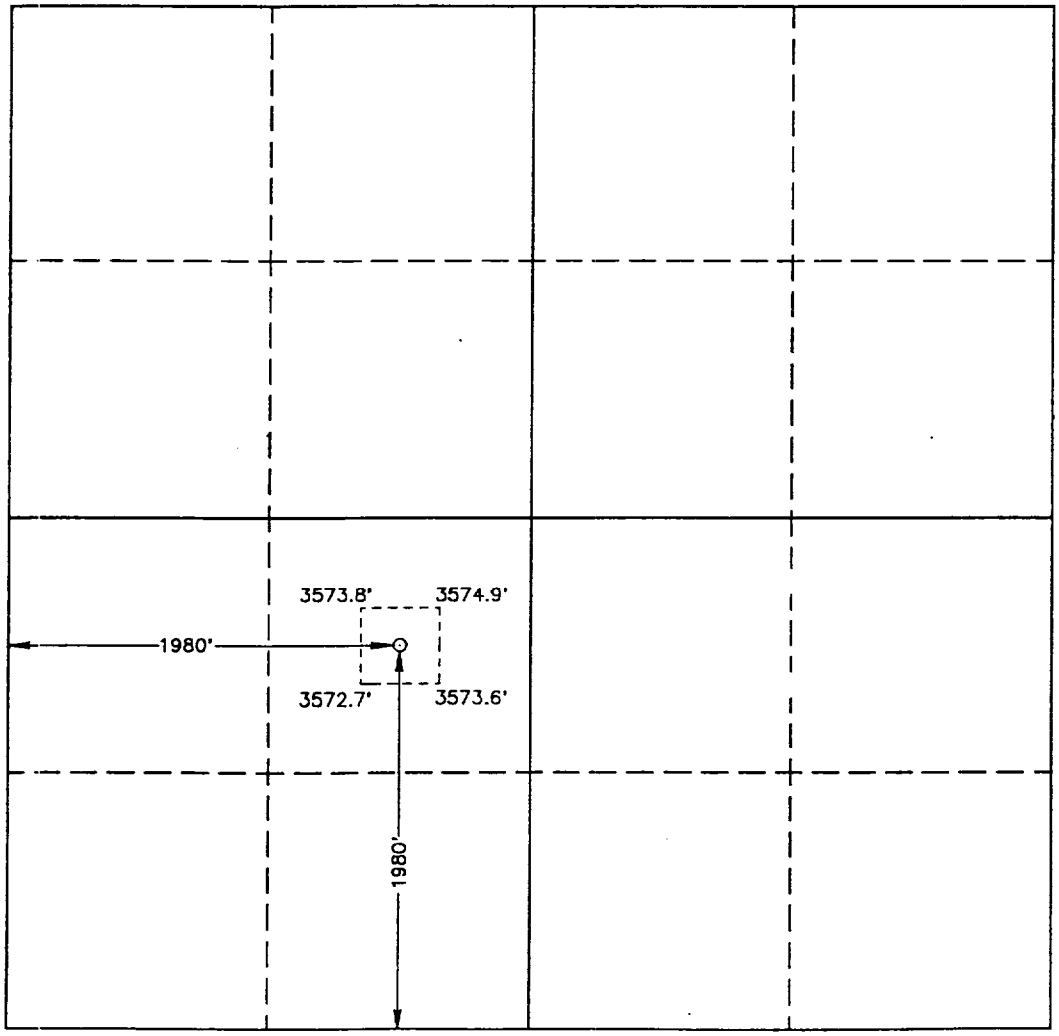
Ul. or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	20	19 S	32 E		1980	SOUTH	1980	WEST	LEA

Bottom Hole Location If Different From Surface

Ul. or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature

Scott H. Lackey
Printed Name

Operations Engineer
Title

August 19, 1997
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

JUNE 10, 1997
Date Surveyed JLP
Signature & Seal of Professional Surveyor

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

6-11-97

W.O. Num. 97-11-0959

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239
GARY G. EIDSON, 12641

DRILLING PROGRAM

Attached to Form 3160-3
Pioneer Natural Resources USA, Inc.
Lusk Deep Unit "A" No. 23 WIW
1980' FWL & 1980' FSL
NE/SW, Sec. 20, T19S, R32E
Lea County, New Mexico

1. Geologic Name of Surface Formation:

   Quaternary Alluvium & Bolson deposits (dune sand; sandy, silty clay)

2. Estimated Tops of Important Geologic Markers:

Rustler	860'	Base Brushy	7000'
Yates	2560'	Base Sand Springs	7170'
Capitan Reef	2730'		
Base Capitan Reef	4380'		
Top Delaware	4380'		
Manzanita	5500'		

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Surface Water Sands	above 250'	Fresh water
Yates	2560'	Oil
Delaware	4380' to 7170'	Oil

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 850' +/- and circulating cement to the surface. Potash will be protected by setting 8-5/8" casing at 4200'+/- and circulating cement back to the surface with the use of a stage tool at 2600'+/- . In the event 5-1/2" production casing is set, sufficient cement volume will be pumped to attempt to fill the entire annular area from TD to 250' above DV Tool located @ 2600' +/-.

4. Casing Program:

Hole Size	Interval	OD csg	Weight,Grade, Jt.,Cond.Type
17-1/2"	0 - 850'	13-3/8"	54.5#, J-55, ST&C, New
12-1/4"	0 - 2600'	8-5/8"	24#, J-55, ST&C, New
12-1/4"	2600 - 4200'	8-5/8"	32#, J-55, ST&C, New
7-7/8"	0 - 7200'	5-1/2"	15.5#, K-55, LT&C, New

Cementing Program:

13-3/8" Surface Casing	CEMENT TO SURFACE AS FOLLOWS: 475 sx 35/65 Poz "C", 6% gel., 5% salt, 1/4#/sx cellophane flakes; followed by 200 sx "C", 2% CaCl, 1/4#/sx cellophane flakes.
8-5/8" Intermediate: (Stage Tool @ 2600')	CEMENT TO SURFACE AS FOLLOWS: 1st stage: 685 sx 50/50 Poz "C", 10% gel., 5% salt, followed by 200 sx "C", 1% CaCl. 2nd stage: 825 sx 50/50 Poz "C", 10% gel., 5% salt, followed by 150 sx "C", 2% CaCl.
5-1/2" Production Casing:	900 sx 50/50 Poz "C", 2% gel., 5% salt, 0.5% FL-25 (Fluid Loss). This is designed to bring cement to surface.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 PSI WP) preventer and a bag-type (Hydril) preventer (3000 PSI WP). Both units will be hyraulically operated and the ram-type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. Both BOP's will be installed on the 13-3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 PSI before drilling out of surface casing. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 PSI and the bag-type (Hydril) preventer will be tested to 70% of rated working pressure (2100 PSI).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily time sheets.

A 2" kill line and a 3" choke line will be installed on the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include the choke lines and choke manifold (3000 PSI WP), kelly cock and floor safety valve (inside BOP).

6. Types and Characteristics of the Proposed Mud System:

This well will be drilled to TD with a combination of fresh water, brine and fresh water polymer systems. The applicable depths and properties of systems are planned as follows:

DEPTH	TYPE	WEIGHT (ppg)	VISCOSITY (Sec)	WATER LOSS (cc)
0 - 850'	Fresh Water-Gel	8.4 - 8.9	30 - 32	25 cc - N/C
850 - 4200'	Brine Water	9.9 - 10.1	28 - 29	N/C
4200 - 6000'	Fresh Water	8.4 - 8.5	28	N/C
6000 - TD	Fresh Water, Gel, Polymer	8.7 - 9.1	30 - 36	12 cc or less

Loss of circulation may occur in the Capitan Reef at about 2800'. If loss can not be corrected reasonably, it may be necessary to dry-drill from the loss depth to 4200'+/- . Sufficient mud mixing materials to maintain the mud properties and to meet reasonable lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

A. A fully opened, fully serviceable drillpipe stabbing valve (inside BOP) with proper drillpipe connections will be on the rig floor at all times.

B. No H2S gas or abnormal pressures are known to exist, in this heavily developed area, down to the proposed TD. Therefore, no pit-volume totalizing system will be employed. The drilling fluid system will be visually monitored at all times.

8. Logging, Testing and Coring Program:

A. No drill stem tests are planned for this well.

B. Open hole electric logs at TD are planned to be as follows:

Compensated Neutron w/Z-Density & GR & Caliper from TD to 4200'; Gamma-Ray to surface.

C. No conventional cores are planned

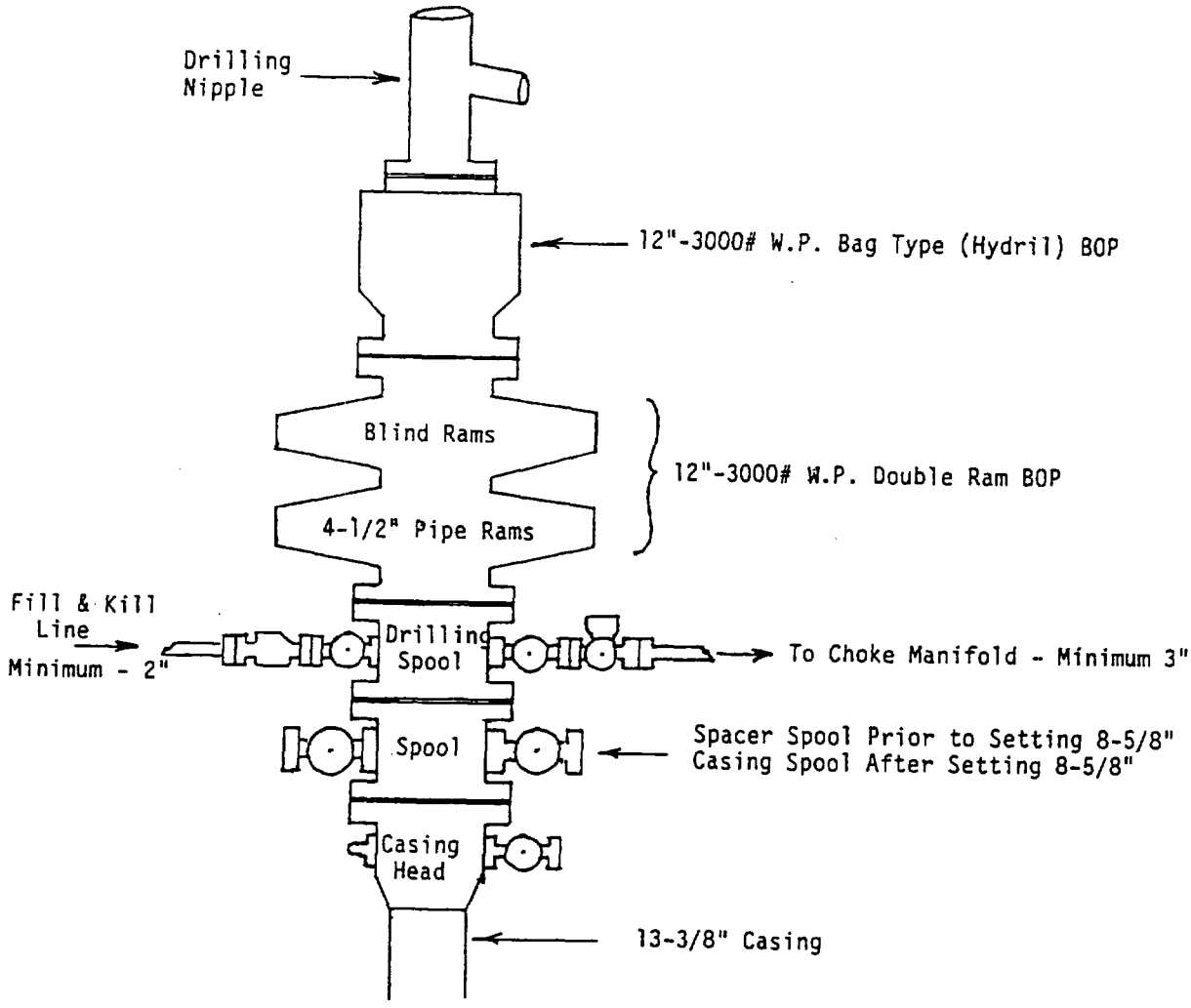
D. Additional evaluation may be required by the company geologist based on drilling shows and log evaluation.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

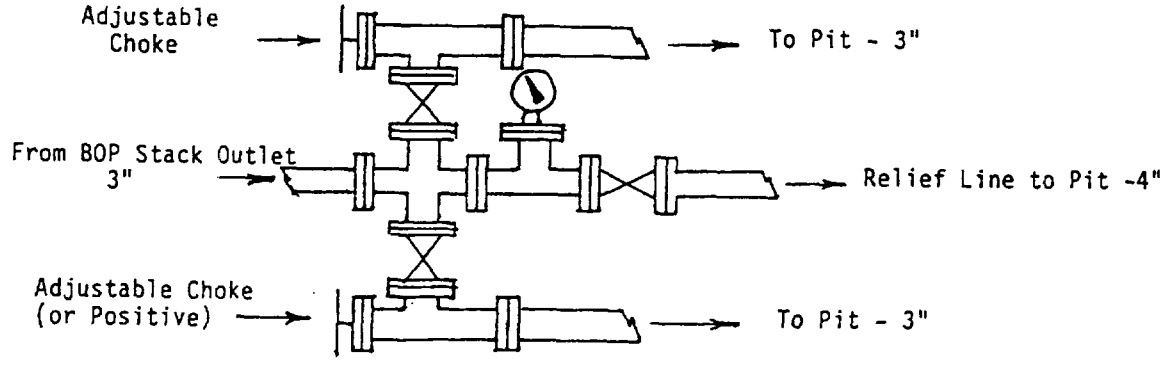
No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is expected to be 135°F and the estimated maximum bottom hole pressure (BHP) is 2800 PSI. No H2S or other hazardous gases or fluid have been encountered, reported or are known to exist to this depth in this area. Some wells in this area have encountered severe to total loss of circulation in the Capitan Reef at about 2800'. If this occurs at this location, several attempts will be made to regain circulation, but if it appears necessary, the well will be dry-drilled to the intermediate casing depth of 4200'+/- .

10. Anticipated Starting Date and Duration of Operations:

Location construction work will not begin until approval has been received from the BLM. The anticipated spud date will be around December 27, 1997. Once commenced, the drilling operations should be completed in approximately twenty (20) days. If the well is productive, an additional thirty (30) days will be required for completion and testing before a decision is made to tie into permanent water injection facilities.



CHOKE MANIFOLD SCHEMATIC
(3000 PSI W P)



Parker & Parsley Development L.P.

BOPE SCHEMATIC (3000 PSI W.P.)
Lusk Deep Unit "A" No. 23W
Lea County, New Mexico
Scale: 1"= 50' Date: June 1997
EXHIBIT #1

ATTACHMENT TO EXHIBIT #1
Notes Regarding the Blowout Preventers
Lusk Deep Unit "A" #23 WIW
Lea County, New Mexico

1. The drilling nipple is to be constructed so that it can be removed without the use of a cutting torch and will have a minimum ID equal to the BOP bore.

2. Blowout preventer and all related equipment and fittings must be in good working condition and be 3000 PSI W.P. minimum.

3. All fittings and valves on the kill line, choke line and choke manifold are to be flanged.

4. All choke and kill lines are to be securely anchored, with special attention to the ends of all choke lines.

5. The blowout preventer control is to be located as close to the driller's position as feasible.

6. The blowout preventer closing equipment is to include a minimum of a 40 gallon accumulator with two independent sources of pump power on each closing unit installation. All closing equipment must meet API specifications for this equipment.

7. Hand wheels are to be properly installed and operable.

8. A safety valve, in full open position, must be readily available on the rig floor at all times with the proper drill pipe threads. This valve is to be full bore and 3000# W.P. minimum.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3
Pioneer Natural Resources USA, Inc.
Lusk Deep Unit "A" No. 23 WIW
1980' FWL & 1980' FSL
NE/SW, Sec. 20, T19S, R32E
Lea County, New Mexico

1. Existing Roads:

   A. The wellsite and elevation plat for this proposed well is shown in Exhibit #2. This well was staked by John West Engineering of Hobbs, New Mexico.

   B. All roads to the location are shown in Exhibit #3. The existing caliche roads are illustrated in dashed lines. A main North-South connecting access road will be constructed along the east quarter section line. This well location can be accessed from existing lease road. Up-grading of the existing road prior to drilling will be done where necessary as determined during the on-site inspection. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

   C. Directions to Locations: Go West out of Hobbs, New Mexico, on U. S. Highway 62/180 for 37 miles to N.M. Highway 243. From intersection of Hwy. 176 & Hwy. 62/180, go North on FM 243 4.4 miles. Turn right on Road #126, go 4.7 miles, turn right through cattle guard, go South .7 miles turn left, go .7 miles, turn left and go .2 miles to location on right. Exhibit #4 shows this route to location.

2. Proposed Access Road:

   As shown on Exhibit #3, the existing lease road passes due south of the proposed well sight. No access road will need to be constructed as the existing lease road will be sufficient to access the drilling location.

3. Location of Existing Wells:

   Exhibit #5 shows all existing wells within a one-mile radius of this well. Production in this area is found in the Yates, Delaware, Bone Springs, Strawn and Morrow horizons.

4. Location of Existing and/or Proposed Facilities if Well is Productive:

   A. Pioneer Natural Resources USA, Inc. plans to construct a waterflood pump station serving this well: Lusk, W. (Delaware) Unit - WF Pump Station - Unit Letter "O", Sec. 20.

B. If this well is productive, it is planned that water injection will be delivered by a fiberglass distribution line to the well #23 WIW of this Section 20. This waterflood pump station facility and water injection distribution lines are diagramed on Exhibit #6, #7 and #8

C. The fiberglass distribution lines will be 3" & 2" Smith FG pipe buried to a depth of about 30". It is proposed that this line will be laid along the west side of the proposed main North-South road. Starting from the wellhead, a 2" FG line will run 100' north then 934.8' east and finally connect into the 3" main water distribution line. The proposed route for this water injection distribution line is shown on Exhibit #8.

5. Location and Type of Water Supply:

This well will be drilled using a combination of fresh water and brine mud system as indicated in the drilling program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck over the existing access roads or from the Carlsbad City water line as shown in Exhibit #3. The proposed main North-South caliche road and access road to the drilling location is also shown in Exhibit #8. No water well will be drilled on this location.

6. Construction Materials:

The drilling pad will be constructed by using caliche, watered, rolled and packed to 6" thickness. This material (approximately 1500 cubic yards) will be obtained from a BLM approved caliche pit in the vicinity. New proposed road construction will also use caliche, watered, rolled and packed for vehicle use.

7. Methods of Handling Waste Disposal:

A. Drill cuttings will be disposed of by putting them in the reserve pit.

B. Excess drilling fluid will be disposed of into the reserve pit. The reserve pit will be approximately 125' x 125' x 6' deep and will be lined with a 6 mil plastic to minimize the loss of fluid to the ground surface. The reserve pit will be fenced on three sides while drilling and the fourth side closed with fence immediately following the rig removal.

C. Water produced from the well during drilling or completion operations maybe disposed of into the reserve pit or into a steel tank for transport to an approved disposal system. Oil produced during the completion and testing operations will

be contained in steel tanks and transported by truck to the battery or to sale.

D. A portable chemical toilet will be provided on location for human waste during the drilling and completion operations.

E. A trash trailer will be utilized to contain all trash and garbage. This trash will be disposed of in an approved garbage disposal site. No hazardous chemicals or toxic waste will be utilized in, or generated by, this operation.

F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. No unnecessary materials will be left on the location.

8. Ancillary Facilities:

No campsite, airstrip or other facilities will be built as a result of the operations contemplated on this well.

9. Wellsite Layout:

A. The drilling pad layout is shown in Exhibit #9. Dimensions of the proposed pad and reserve pit are shown. Because the site area is almost level in its natural state, no major cuts or fills will be required. Top soil from the reserve pit construction will be stock piled as per BLM specifications.

B. Exhibit #9 shows the planned orientation of the rig and associated major components. No permanent living quarters are planned but a temporary foreman/tool-pusher's trailer will be on location during the drilling operations.

C. The reserve pit will be lined with a 6 mil plastic liner made for that purpose.

10. Plans for Restoration of the Surface:

A. When the drilling rig is removed, the reserve pit will be completely fenced off to prevent livestock and wild life from getting into it. Any oil on the surface of the fluid will be removed as much as feasible. The fluid in the pit will be allowed to evaporate until the material is reasonably dry. This drying is expected to require about 120 days. The pit will be broken out and allowed to dry a few more days and then leveled. The original top soil will be returned to the pit area and contoured to match the original topography as close as is feasible. All trash and loose pit lining material will be removed and hauled away to an approved disposal site.

B. If this well is completed as a active water injection well, the pit area will be treated as indicated above. The caliche from any area of the drilling pad not needed for water injection operations or facilities will be removed and used for road and location construction or repair, or if not needed, returned to the caliche pit from which it was taken.

C. If this well is plugged and abandoned the reserve pit will be treated as indicated in "A" above. The caliche will be removed from the drilling location and returned to the pit from which it was taken. The original top soil will be returned to the entire location which will be leveled and contoured to as nearly the original topography as possible.

D. Any restored area will be revegetated by re-seeding, during the proper planting time, with a seed mixture of grasses as recommended by the BLM.

11. Surface Ownership:

The wellsite and lease is entirely on Federal surface.

12. Other Information:

A. The area around the wellsite is brushy grassland with a very sandy top soil. The vegetation is native grasses with abundant oak brush, sage brush, yucca and prickly pear.
B. There is no permanent water or live streams of water in the immediate area.

C. A Cultural Resources Examination has been completed and the report has been forwarded to the BLM Office.

13. Lessee's or Operator's Representative and Certification:
The Pioneer Natural Resources USA, Inc. representative responsible for assuring compliance with the surface use plan is the following:

Mr. David Shrauner, Lusk Field Superintendent
Drawer E
Kermit, TX 79745

Resident Phone: 915/586-5818
Office Phone: 915/586-6511
Mobile Phone: 915/556-0188

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Pioneer Natural Resources USA, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

DATE: 8/21/97

SIGNED Scott H. Lackey

Scott H. Lackey, Operations Engineer

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34173	41540	Lusk Delaware, West

Property Code	Property Name	Well Number
018278	LUSK DEEP UNIT "A"	23W

OGRID No.	Operator Name	Elevation
036324	Pioneer Natural Resources USA, Inc.	3574

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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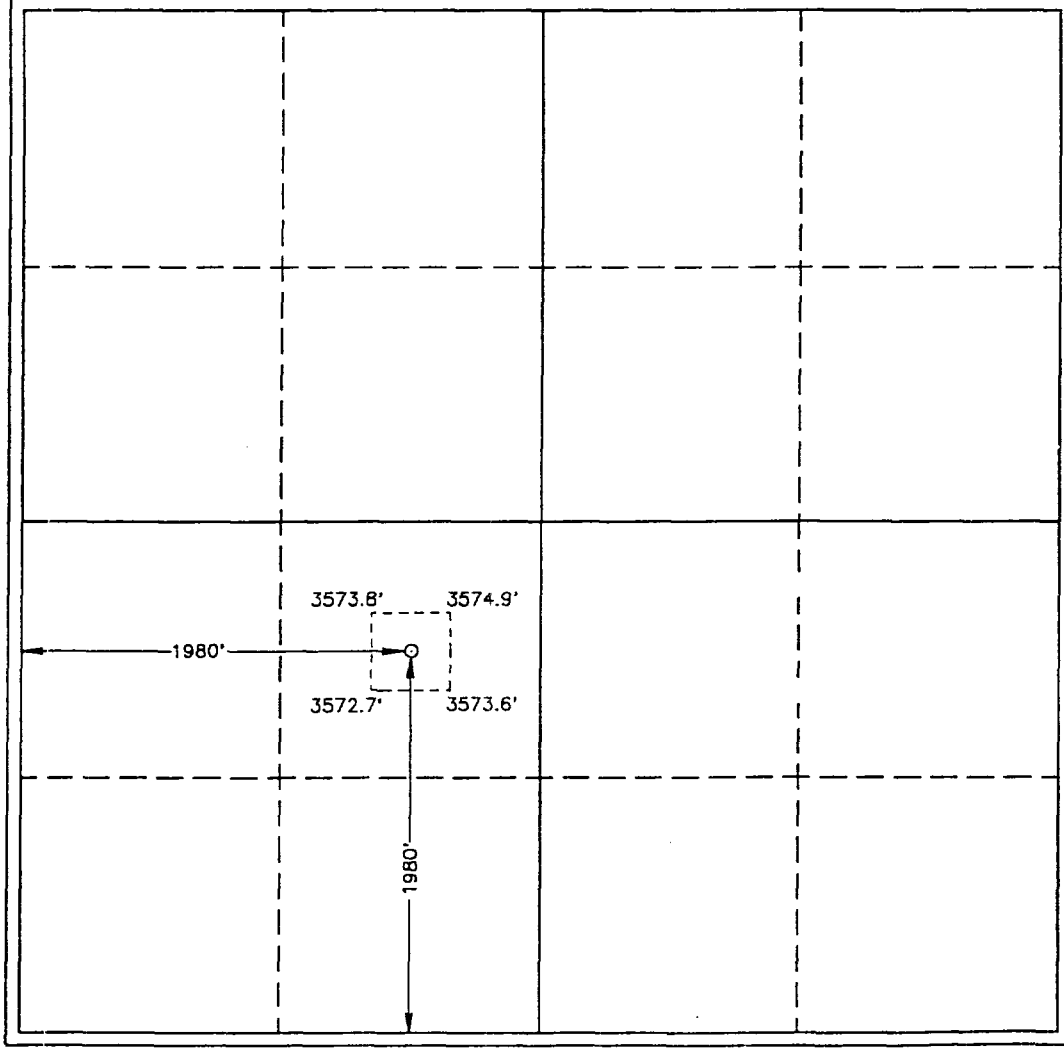
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature

Scott H. Lackey
Printed Name

Operations Engineer
Title

August 19, 1997
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

JUNE 10, 1997
Date Surveyed JLP

Signature & Seal of Professional Surveyor

RONALD J. EIDSON
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR

6-11-97

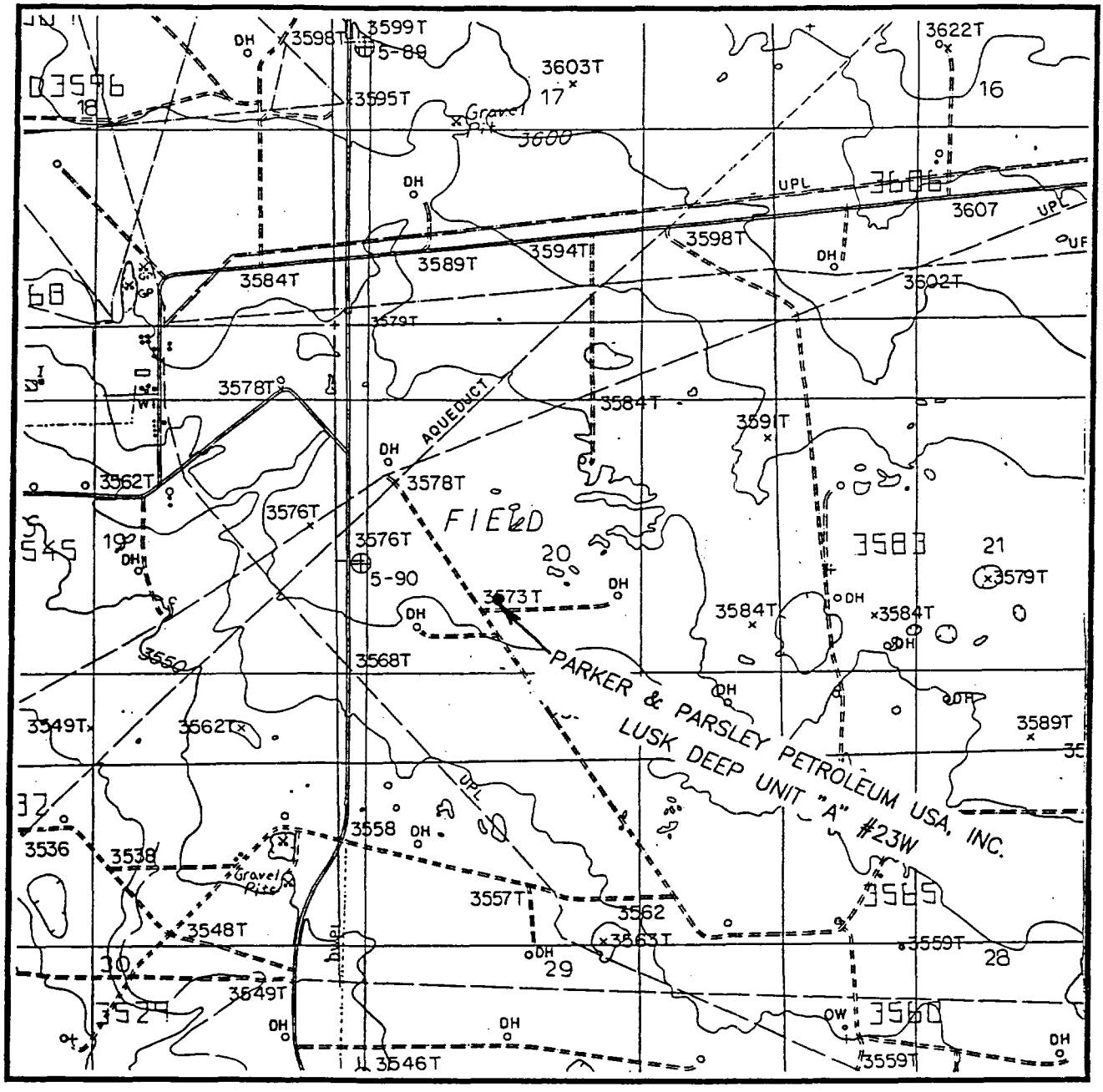
W.O. Num. 97-11-0959

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239
GARY G. EIDSON, 12641

EXHIBIT #2

LOCATION VERIFICATION MAP

EXHIBIT #3



SCALE: 1" = 2000'

CONTOUR INTERVAL – 10'

SEC. 20 TWP. 19–S RGE. 32–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1980' FSL & 1980' FWL

ELEVATION 3574'

OPERATOR PARKER & PARSLEY PETROLEUM USA, INC.

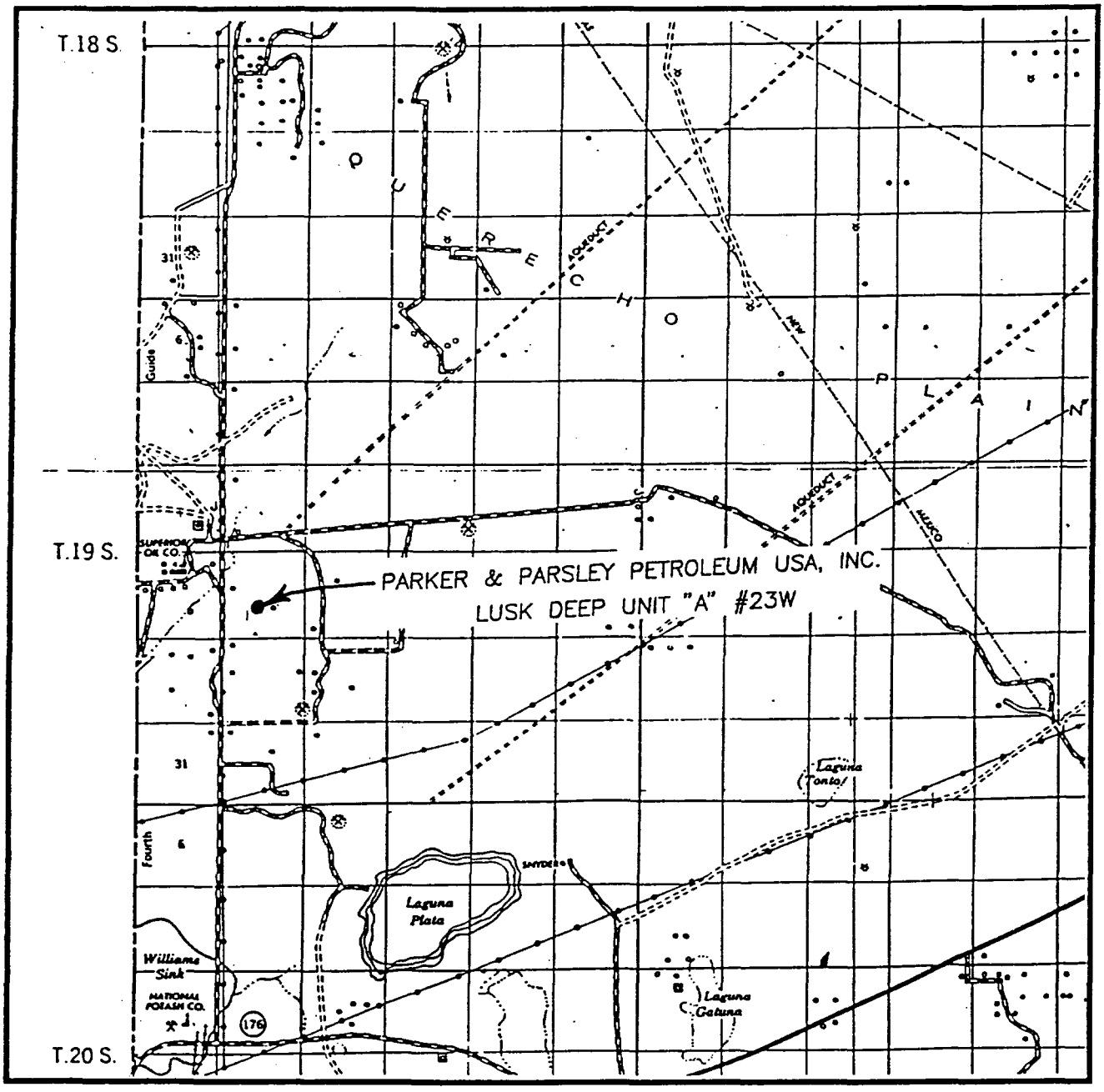
LEASE LUSK DEEP UNIT "A"

U.S.G.S. TOPOGRAPHIC MAP
GREENWOOD LAKE, N.M.

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

VICINITY MAP

EXHIBIT #4



SCALE: 1" = 2 MILES

SEC. 20 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

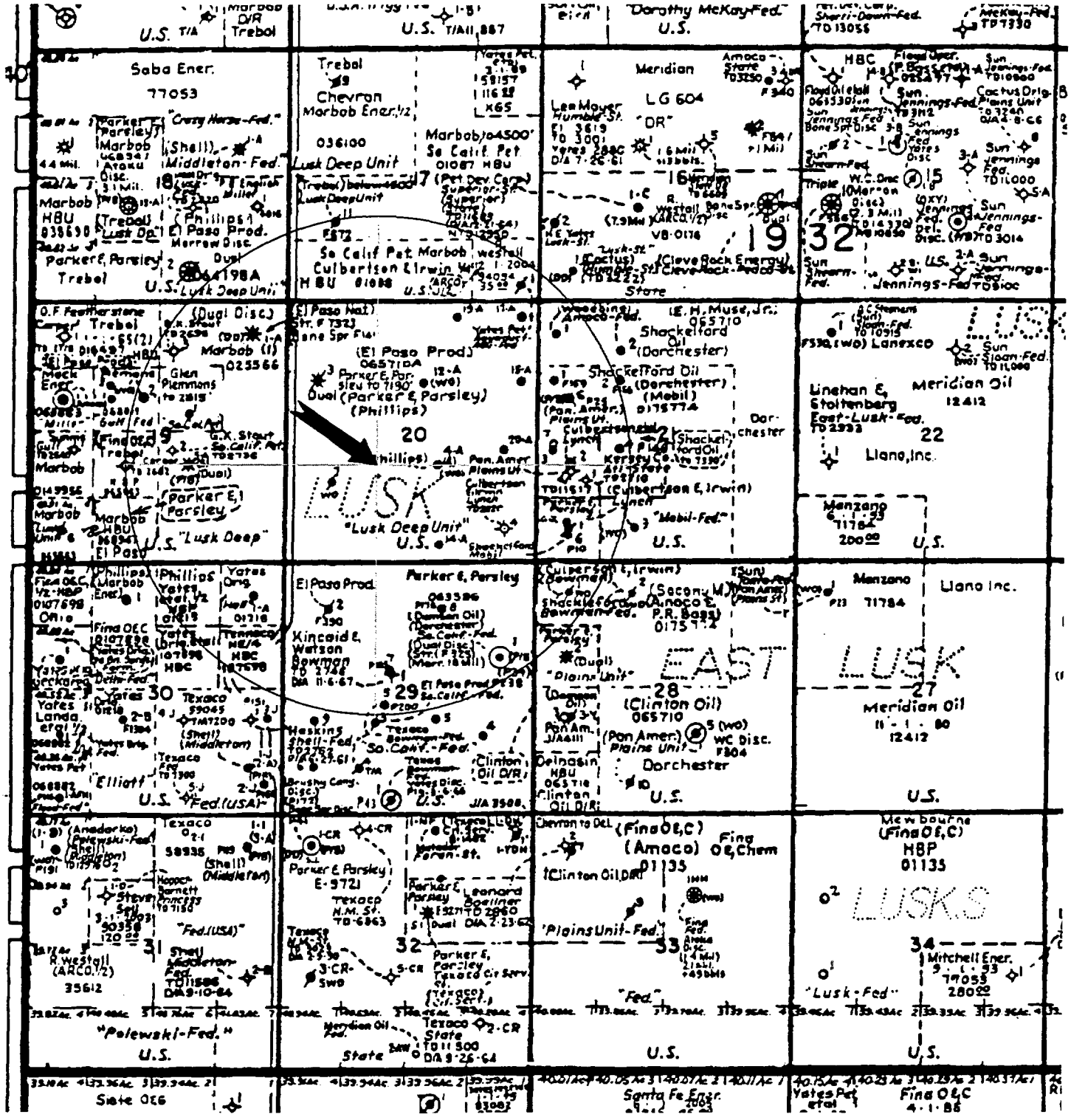
DESCRIPTION 1980' FSL & 1980' FWL

ELEVATION 3574'

OPERATOR PARKER & PARSLEY PETROLEUM USA, INC.

LEASE LUSK DEEP UNIT "A"

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117



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SCALE IN MILES

0 1/2 1

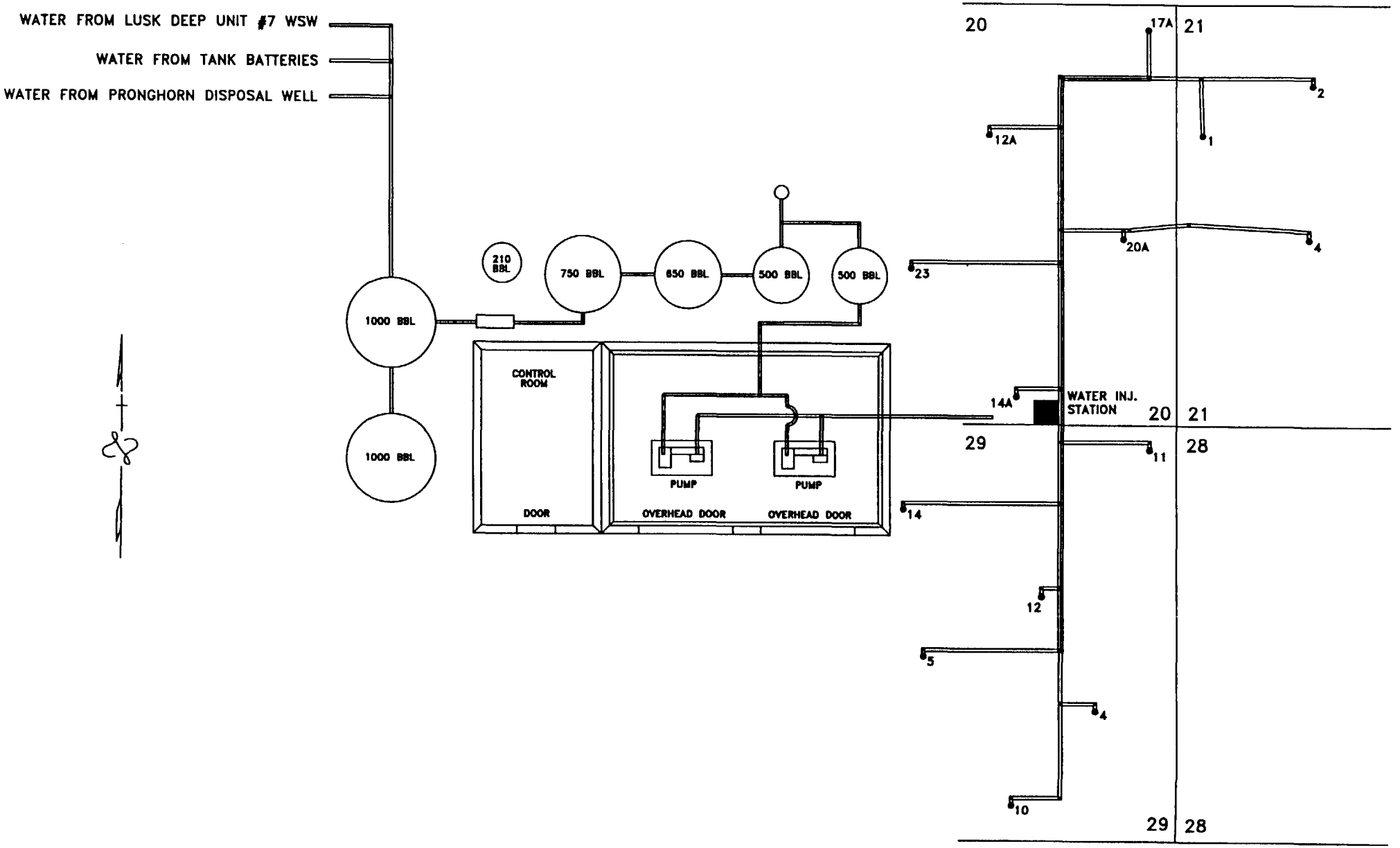
Parker & Parsley Development L.P.

Existing Wells In One Mile Radius
Lusk Deep Unit "A" No. 23W
Lea County, New Mexico
Date: May 1997

EXHIBIT #5

EXHIBIT #6

FACILITY SCHEMATIC
LUSK, W. DELAWARE WATERFLOOD
LUSK, W. FIELD, LEA COUNTY, NEW MEXICO



LUSK INJECTION DESIGN
SECTIONS 20,21 & 29, T-19-S, R-32-E
LEA COUNTY, NEW MEXICO

EXHIBIT #7

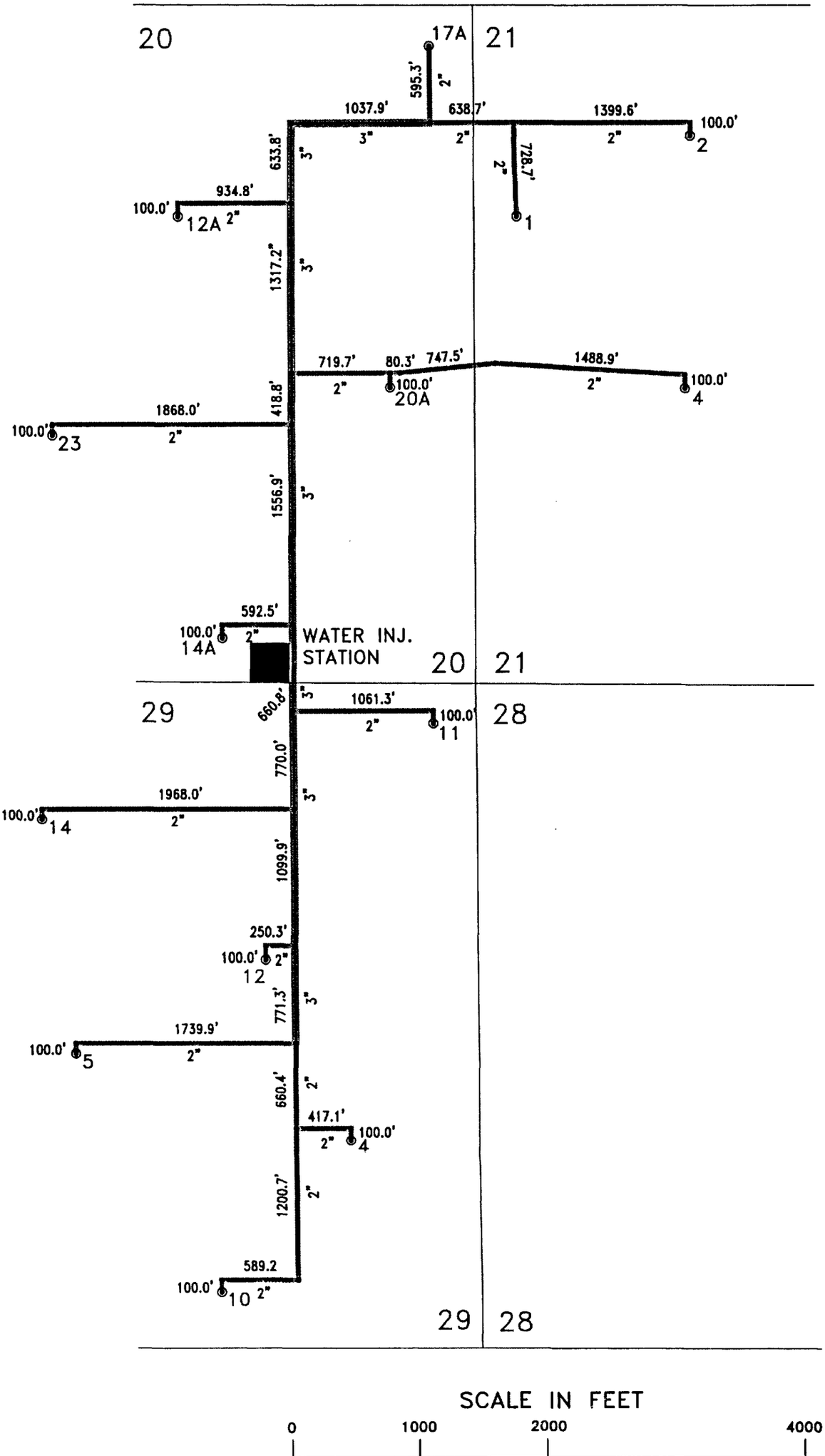
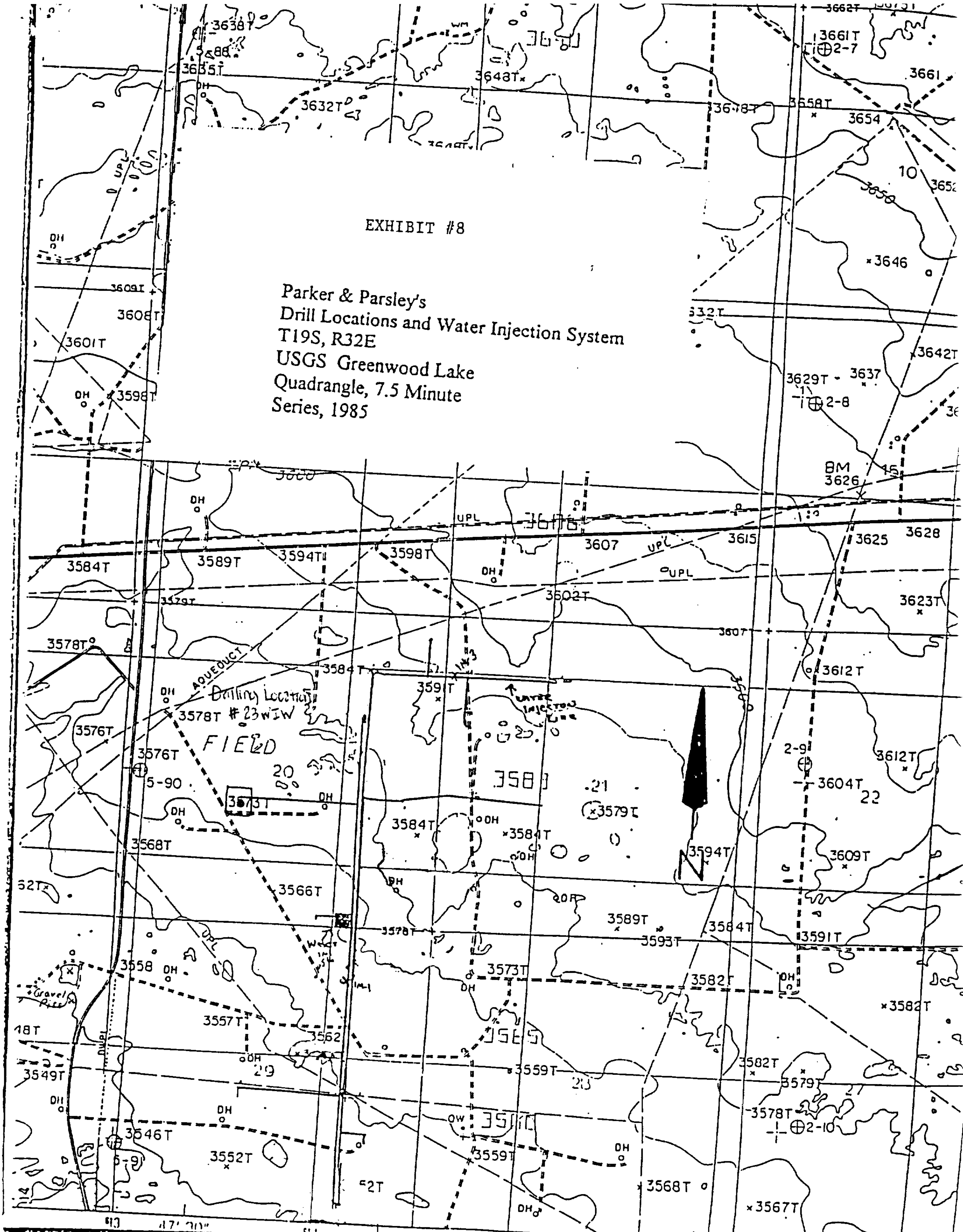
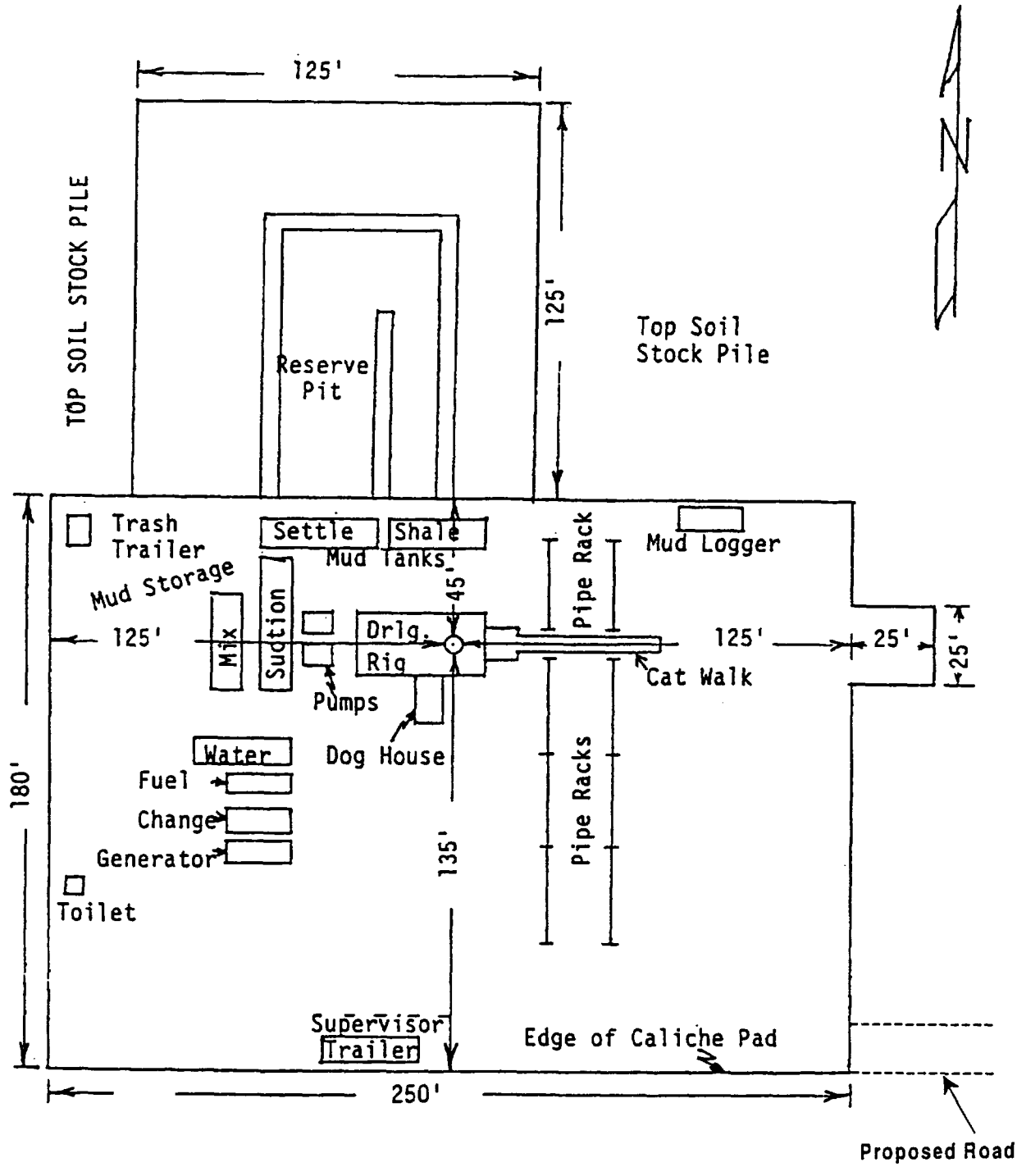


EXHIBIT #8

Parker & Parsley's
Drill Locations and Water Injection System
T19S, R32E
USGS Greenwood Lake
Quadrangle, 7.5 Minute
Series, 1985





Parker & Parsley Development L.P.

Drilling Rig Layout
Lusk Deep Unit "A" No. 23W
Lea County, New Mexico
Scale: 1"= 50' Date: June 1997
EXHIBIT # 9

WFX 2/6/98

PIONEER

January 15, 1998

New Mexico Oil Conservation Division
Attn: David Catanach
1474 Rodeo Road
Santa Fe, NM 87505

RE: Application for Authorization to Inject
Lusk West (Delaware) Unit
Lea County, NM

Dear Mr. Catanach:

Pioneer Natural Resources USA, Inc. is requesting your authorization to inject into the well described below, which is located within the Lusk West (Delaware) Unit. Enclosed you will find an original C-108 and one copy for your review.

The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD and 1280 PSI, respectively. The proposed injector will be called the Lusk West (Delaware) Unit #909, which will be located in Unit I, 1980' FSL & 940' FEL, Section 29, T19S, R32E, Lea County, NM.

Any questions concerning this application should be forwarded to the attention of Scott H. Lackey at the address above or call (915) 571-3976.

Sincerely,

Pioneer Natural Resources USA, INC.

Scott H. Lackey
Sr. Operations Engineer

Enclosures

CC: BLM
Roswell, NM

P.O. BOX 3178 • MIDLAND, TEXAS 79702-3178 • 303 W. WALL SUITE 101 • MIDLAND, TEXAS 7970[illegible] • MAIN (915) 683-4768 • FAX (915) 571-5063

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION FOR AUTHORIZATION TO INJECT

LUSK WEST (DELAWARE) UNIT

Lea County, New Mexico

TABLE OF CONTENTS

APPLICATION

FORM C-108

POST OFFICE BOX 2010
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [XX] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [XX] yes [ ] no

II. Operator: Pioneer Natural Resources USA, Inc.

Address: P.O. Box 3178, Midland, TX 79702

Contact party: Scott H. Lackey Phone: (915) 571-3976

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? [XX] yes [ ] no
If yes, give the Division order number authorizing the project R-10863

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: Scott H. Lackey Title Operations Engineer

Signature: Scott H. Lackey Date: 1/7/98

* 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. Hearing Date: 2/6/97. Case Nos. 11, 703 and 11,704.

DISTRIBUTION: Original and

INJECTION WELL DATA SHEET

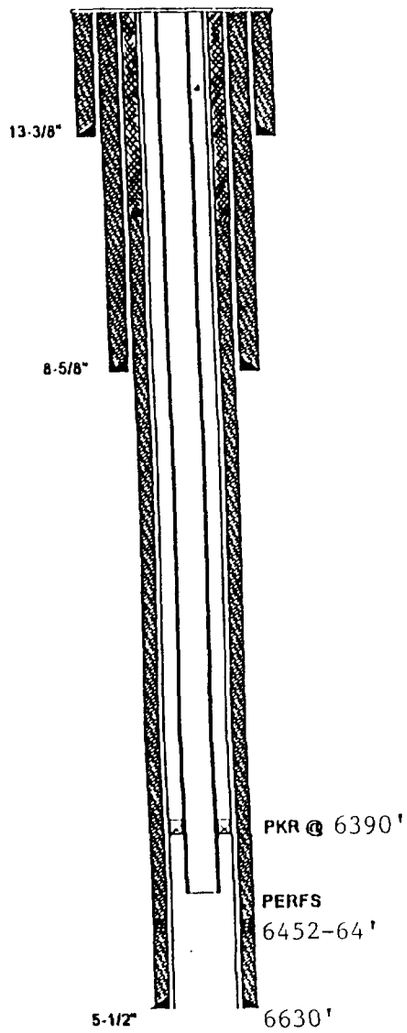
SECTION III

OPERATOR: Pioneer Natural Resources USA, Inc. LEASE: Southern California Federal

WELL NO #909 1980' FSL & 940' FEL Section 29 T19S R32E

FOOTAGE LOCATION | SECTION | TOWNSHIP | RANGE

SCHEMATIC



WELL CONSTRUCTION DATA

1. SUFACE CASING

SIZE: 13-3/8 INCHES CEMENTED WITH: 675 SX

TOC: Surface FEET DETERMINED BY: Circulating

HOLE SIZE: 17-1/2 INCHES

2. INTERMIDIATE CASING

SIZE: 8-5/8 INCHES CEMENTED WITH: 1860 SX

TOC: Surface FEET DETERMINED BY: Circulating

HOLE SIZE: 12-1/4 INCHES

3. LONG STRING

SIZE: 5-1/2 INCHES CEMENTED WITH: 900 SX

TOC: Surface FEET DETERMINED BY: Circulating

HOLE SIZE: 7-7/8 INCHES

4. INJECTION INTERVAL

6452 FEET TO: 6464 FEET

(PERFORATED OR OPEN HOLE ; INDICATE WHICH)

"PERFORATED"

5. TOTAL DEPTH: 6630 FEET

6. TUBING SIZE

SIZE: 2-7/8 INCHES LINED WITH: IPC 505 - PLASTIC COATING

SET IN A: ARROW SET 1-XS, PKR PACKER AT: 6390' FEET:

OTHER DATA

A. IS THIS A NEW WELL DRILLED FOR INJECTION? XX YES _____ NO

IF NO, FOR WHAT PURPOSE WAS THE WELL ORIGINALLY DRILLED? _____

B. NAME THE INJECTION FORMATION: 6400' SAND (BRUSHY CANYON)

C. NAME THE FIELD OR POOL (IF APPLICABLE) LUSK WEST (DELAWARE)

D. HAS THE WELL EVER BEEN PERFORATED IN ANY OTHER ZONE(S)? LIST ALL SUCH PERFORATED INTERVALS AND GIVE PLUGGED DETAIL, I.E. SACKS OF CEMENT OR PLUG(S) USED. NO

E. GIVE THE NAME(S) AND DEPTH(S) OF ANY OVER OR UNDERLYING OIL OR GAS ZONES IN THIS AREA:

1. YATES 2600'-2800'	WATKINS YATES
	N.E. LUSK YATES
	S. LUSK YATES
2. DELAWARE 4600'-7100'	W. LUSK DELAWARE
	LUSK DELAWARE
3. BONE SPRING 8200'-8950'	WATKINS BONE SPRING
	LUSK BONE SPRING
	S. LUSK BONE SPRING
	E. LUSK BONE SPRING
4. WOLF CAMP 10100'-10700'	LUSK WOLFCAMP OIL
	E. LUSK WOLFCAMP OIL
5. STRAWN 11000'-11200'	LUSK STRAWN OIL
6. ATOKA 11200'-11400'	LUSK ATOKA GAS
7. MORROW 11500'-12000'	LUSK MORROW GAS
	N.W. LUSK MORROW GAS
	N. LUSK MORROW GAS

FORM C-108
SECTION III
APPLICATION FOR AUTHORIZATION TO INJECT

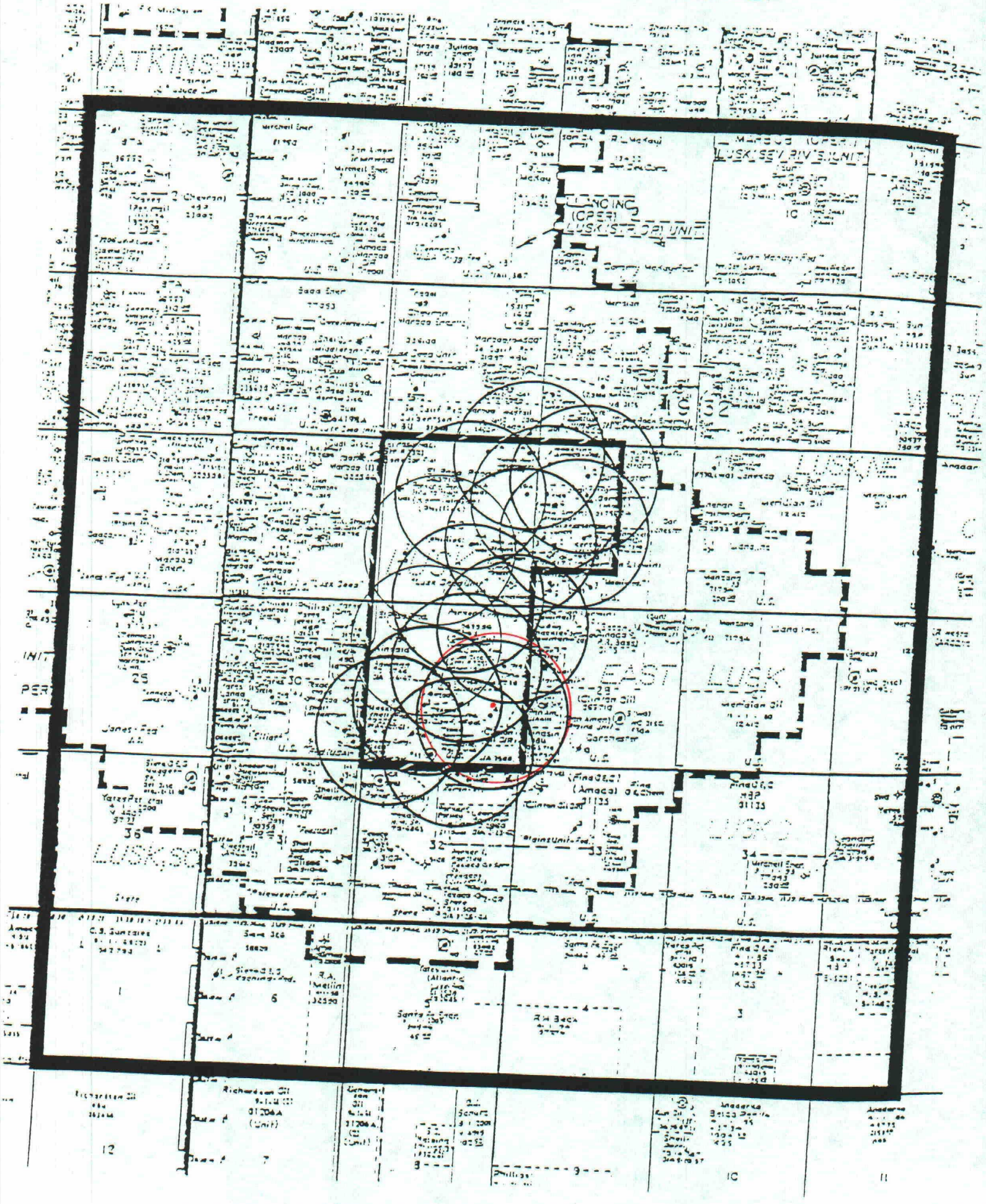
WATER INJECTION WELL

MAP OF AREA

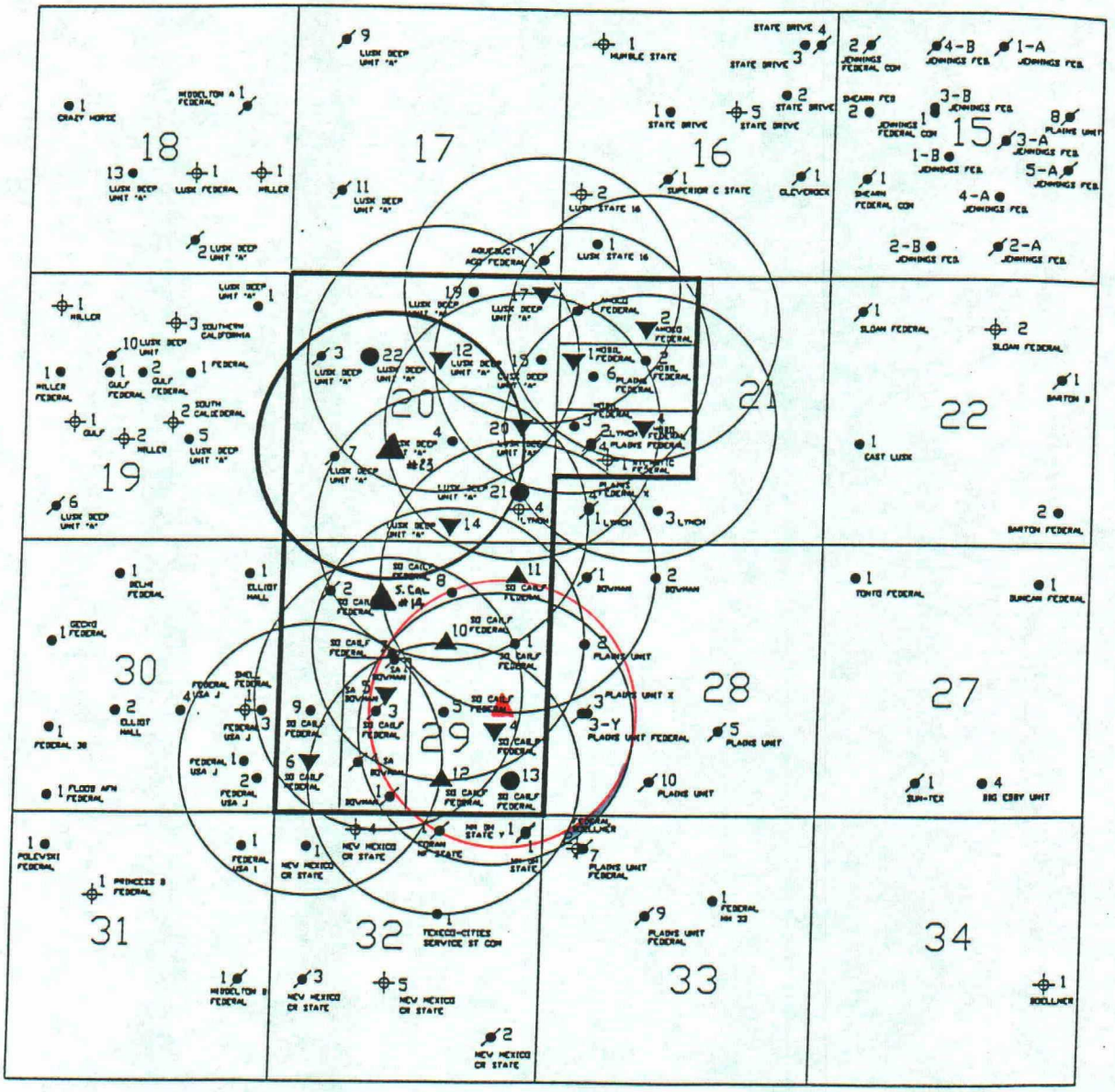
SECTION V

LUSK (DELAWARE), WEST
Lea County, NM

LAND PLAT OF TRACTS & LEASES COVERING UNIT AREA



LUSK WEST (DELAWARE)
LEA COUNTY, NEW MEXICO
LAND PLAT OF TRACTS & LEASES COVERING UNIT AREA



- ● PRODUCER
- ⊘ PLUGGED & ABANDONED
- ⊕ DRY HOLE
- ▼ CONVERT TO INJECTOR
- ▲ DRILLED INJECTOR
- ● DRILLED PRODUCER

TABULATIONS OF WELL DATA

SECTION VI

INFORMATION REQUIRED UNDER SECTION VI WAS PREVIOUSLY SUBMITTED UNDER CASE NOS. 11,703 AND 11,704 ON FEBRUARY 6, 1997.

DATA SHEET ON PROPOSED OPERATIONS

SECTION VII

FORM C-108

SECTION VII

1) Proposed Average Daily Injection Rate - 400 BWIPD
   Proposed Maximum Daily Injection Rate - 900 BWIPD

2) This will be a closed system

3) Estimated Average Injection Pressure - 700 PSI
   Estimated Maximum Injection Pressure - 1280 PSI

4) See attached letter and chemical analysis

5) Does not apply.

Champion Technologies, Inc.
P.O. BOX 2157
HOBBS, NEW MEXICO 88240
Telephone (505) 393-7726

December 10, 1996

Parker & Parsley
P.O. Box 3178
Midland, Tx. 79702

Attn: Britt Hirth

Dear Mr. Hirth,

According to reports, Parker & Parsley is planning to inject water at the Lusk West Delaware lease. Water from the Seven Rivers formation is going to be commingled with the Delaware water. When mixed these two waters show to have a Calcium Sulfate scaling tendency, thus making these two water incompatible.

Champion Technologies is recommending a scale inhibitor be injected continuously into the commingled injection water at a treating rate of 15 to 25 ppm. This treatment will inhibit the Calcium Sulfate scale from depositing in the injection wells and improve the quality of the injection water to acceptable levels. Compatibility tests with scale inhibitors and the injection water should be performed before a scale inhibitor is put in place.

If you have any questions please contact me in the Hobbs office.

Regards,

Kenny Kearney

Kenny Kearney

FORM C-108
SECTION VII
ITEM #4

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-452:

RESULT OF WATER ANALYSES

TO: Mr. David Shrauner
P O Drawer E, Kermit, TX 79745

LABORATORY NO. 896141
SAMPLE RECEIVED 8-16-96
RESULTS REPORTED 8-21-96

COMPANY Parker & Parsley LEASE Pronghorn SWD
FIELD OR POOL Lusk
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from inlet to gunbarrel. 8-16-96
NO. 2 Produced water - taken from Southern California heater treater (water pump). 8-16-9
NO. 3 Produced water - taken from outlet from gunbarrel. 8-16-96
NO. 4 ____
REMARKS: ____

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1436	1.1718		
pH When Sampled				
pH When Received	6.19	6.18		
Bicarbonate as HCO_3	273	78		
Supersaturation as $CaCO_3$	0	8		
Undersaturation as $CaCO_3$	--	--		
Total Hardness as $CaCO_3$	58,000	83,000		
Calcium as Ca	19,200	28,400		
Magnesium as Mg	2,430	2,916		
Sodium and/or Potassium	61,402	66,136		
Sulfate as SO_4	960	384		
Chloride as Cl	134,936	160,503		
Iron as Fe	11.3	10.5		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	219,202	258,417		
Temperature °F.				
Carbon Dioxide, Calculated	301	86		
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.054	0.050		
Suspended Oil	--	--	1,027	
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Sulfate Scaling Tendency	None	None		
Calcium Sulfate Scaling Tendency	None	None		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The objective herein is to evaluate compatibility between these two waters. A careful study of the waters has revealed no evidence of any incompatibility, therefore, the mixing of these two waters would not be expected to cause any scaling potential or precipitation.

By _____
Waylan C. Martin, M.A.

Form No. 3

FORM C-108
SECTION VII
ITEM #4

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. David Shrauner
P O Drawer E, Kermit, TX 79745

LABORATORY NO. 896140
SAMPLE RECEIVED 8-19-96
RESULTS REPORTED 8-21-96

COMPANY Parker & Parsley LEASE As listed
FIELD OR POOL Lusk
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Supply water - taken from Lusk Deep #7.
NO. 2 Produced water - taken from Southern California #5.
NO. 3 Produced water - taken from Southern California #7.
NO. 4 ____
REMARKS: 2. 6,400' 3. 4,700'

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0323	1.1784	1.1721	
pH When Sampled				
pH When Received	5.80	6.31	6.41	
Bicarbonate as HCO_3	488	51	54	
Supersaturation as $CaCO_3$	--	6	4	
Undersaturation as $CaCO_3$	10	--	--	
Total Hardness as $CaCO_3$	8,800	87,000	78,000	
Calcium as Ca	2,520	29,600	28,000	
Magnesium as Mg	608	3,159	1,944	
Sodium and/or Potassium	12,226	67,015	70,258	
Sulfate as SO4	3,785	313	362	
Chloride as Cl	22,016	164,764	163,344	
Iron as Fe	60.8	2.4	5.2	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	41,643	264,902	263,962	
Temperature °F.				
Carbon Dioxide, Calculated	1,269	42	35	
Dissolved Oxygen,				
Hydrogen Sulfide	74.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.200	0.0	0.0	
Suspended Oil	0.200	0.049	0.050	
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Carbonate Scaling Tendency	None	None	None	
Calcium Sulfate Scaling Tendency	Moderate	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

FORM C-108
SECTION VII
ITEM #4

By ____

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. David Shrauner
P O Drawer E, Kermit, TX 79745

LABORATORY NO. 896140 (Page 2)
SAMPLE RECEIVED 8-19-96
RESULTS REPORTED 8-21-96

COMPANY Parker & Parsley LEASE As listed
FIELD OR POOL Lusk
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Composite Southern California water (equal mix of well #5 & well #7).
NO. 2 Hypothetical combination of 25% Lusk #7 & 75% composite Southern California.
NO. 3 Hypothetical combination of 50% Lusk #7 & 50% composite Southern California.
NO. 4 Hypothetical combination of 75% Lusk #7 & 25% composite Southern California.

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F	1.1753			
pH When Sampled				
pH When Received	6.36			
Bicarbonate as HCO_3	53			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	82,500			
Calcium as Ca	28,800	22,230	15,660	9,090
Magnesium as Mg	2,552			
Sodium and/or Potassium	68,637			
Sulfate as SO_4	338	1,200	2,062	2,923
Chloride as Cl	164,054	128,545	93,035	57,526
Iron as Fe	3.8			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	264,432			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.050			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Sulfate Scaling Tendency	None	Mild	Moderate	Severe

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks Letter of recommendation attached.

By Waylan C. Martin, M.A.

Form No. 3
FORM C-108
SECTION VII
ITEM #4

Martin Water Laboratories, Inc.
WATER CONSULTANTS SINCE 1953
BACTERIAL AND CHEMICAL ANALYSES

P. O. BOX 1468
MONAHANS, TEXAS 79756
(915) 943-3234 or 563-1040

709 W. INDIANA
MIDLAND, TEXAS 79701
(915) 683-4521

August 21, 1996

Mr. David Shrauner
Parker & Parsley
P.O. Drawer "E"
Kermit, TX 79745

Subject: Recommendations relative to laboratory #896140 (8-21-96), Lusk Deep #7 and Southern California #5 and #7.

Dear Mr. Shrauner:

The objective herein is to evaluate compatibility between the waters from Lusk Deep #7 and both Southern California #5 and #7. A careful study in this regard has revealed the following:

1. We have made hypothetical combinations of these waters and find that essentially any mixture of these waters would be expected to result in a calcium sulfate scaling potential. However, as the proportion of the water from Lusk Deep #7 increases, we find a proportionate increase in calcium sulfate scaling potential. The most severe scaling potential resulted when we combined 75 percent of the water from Lusk Deep #7 with the other two waters.

2. The results reveal the presence of a slight amount of iron in both of the Southern California wells and hydrogen sulfide in Lusk Deep #7. This evidence indicates iron sulfide precipitation can be expected on the mixing of these waters. It should be understood that we would anticipate variations in the iron content in Southern California #5 and #7 and therefore variations in the amount of iron sulfide that would precipitate when mixed with Lusk Deep #7.

3. This study has revealed no evidence of any other potential incompatibility.

Based on the evidence revealed in this study, we would conclude that these waters are not compatible, and we would recommend the waters not be mixed on the surface nor should Lusk Deep #7 be injected into the zone represented by the Southern California wells.

Yours very truly,

Waylan C. Martin

WCM/mo

FORM C-108
SECTION VII
ITEM #4

GEOLOGICAL DATA SHEET

SECTION VIII

FORM C-108 SECTION VIII

Geological Summary

The Lusk West Delaware field is located in Lea county, New Mexico in TWN 19S RGE 32E. As of April 30, 1996 there were 31 (seven inactive) wells producing approximately 9,441 BBLS/Mo, 16,950 MCF/Mo and 13,480 BW/Mo. The field's current producing gas-oil ratio is at 1,795 SCF/BBL as of April 1996. Cumulative production as of April 1996 for the field is 2,106.3 MBBLS, 4,367.3 MMCF and 1,789.8 MBW. Production comes mainly from the 6400' zone in the Delaware Brushy Canyon. There are several other Delaware Brushy Canyon zones including the 4900' sand, 5500' sand, 6650' sand, 7050' sand and the 7200' sand. These zones have contributed about 587 MBBLS & 1,029.2 MMCF. The proposal is to only Waterflood the 6400' sand interval. The wells that contributed to the 6400' zone have produced about 1,519 MBBLS, 3,338.1 MMCF and 1,281 MBW.

The 6400' zone is a deep marine turbidite fan system that runs primarily north-south along the slope break. The sandstone body varies in thickness from 0 to 35+ feet. The sand averages about 22 feet thick. A mineralogic and Petrographic analysis was performed by Western Atlas's Core Laboratories on the Damson Oil Corp. Southern California Federal #7. The following is the results of their analysis.

The sandstone is described as a subarkosic feldspathic sandstone that is fairly well sorted, ranges from very angular to rounded, is mature in texture, is random in grain orientation and has point, floating, straight, concavo-convex grain contacts. The sandstone is primarily composed of monocrystalline quartz, potassium feldspar, dolomite rock fragments, plagioclase and polycrystalline quartz. There is no rock matrix present. The cement is common to abundant, is finely disseminated with fine crystalline dolomite and patches of anhydrite. There is an abundance of intergranular pores, uncommon grain-moldic pores, rare intergranular and very small pores associated with dolomite rock fragments and dolomite cements. No authigentic clays are present, there is no evidence of sedimentary structures, the pore network is very well interconnected and fractures are not present.

The 6400' Delaware sand exhibits both stratigraphic and structural trapping mechanisms and characteristics. The Lusk West field trends structurally down dip in the easterly direction. There are two visible structural high's setting up a nose in which the thickest portion of the sand body is present. There appears to be an oil-water contact at approximately -2,900' on the down dip side. The up dip extent of field is delineated by sandstone fans that thins in a westerly direction to zero. These fans appear separated by a tight clay rich margin that trends SE to NW across the southern half of Sec. 20.

INJECTION WELL STIMULATION PROGRAM

SECTION IX

FORM C-108

SECTION IX

There will be a small clean up acid job only for each injection well.

LOGGING AND TEST DATA

SECTION X

WELL LOGS WILL BE SUBMITTED UPON COMPLETION OF DRILLING OPERATIONS

CHEMICAL ANALYSIS OF FRESH WATER

SECTION XI

FORM C-108

SECTION XI

There is no known beneficially used fresh water. Water from the Santa Rosa formation is not of sufficient supply and areal extent to justify drilling of water wells. Livestock is watered by private co-ops and pipeline.

AFFIRMATIVE STATEMENT

SECTION XII

FORM C-108

SECTION XII

Not applicable due to nature of the Secondary Recovery application, this section does not apply.

PROOF OF NOTICE

SECTION XIII

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1

weeks.

Beginning with the issue dated

January 9 1998

and ending with the issue dated

January 9 1998

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 9th day of

January 1998

Jodi Henson

Notary Public.

My Commission expires
October 18, 2000
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL

LEGAL NOTICE
January 9, 1998
NOTICE OF APPLICATION FOR
FLUID INJECTION WELL PERMIT

Pioneer Natural Resources USA, Inc., P.O. Box 3178, Midland, TX is applying to the New Mexico Oil Conservation Division for a permit to inject into a formation which is productive of oil and gas. The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD, and 1280 PSI, respectively. The proposed injector will be called the Lusk West Delaware Unit #909, which will be located in Unit I, 1980' FSL & 940' FEL, Section 29, T19S, R32E, Lea County, NM. Any questions concerning this application should be forwarded to the attention of Scott H. Lackey, at the address above or call (915) 571-3976. 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 from this publication. Published in the Hobbs News Sun January 9, 1998.
#15584

a0107472000 02512341

Parker & Parsley
P.O. Box 3178
a/c# 057974
MIDLAND, TX 79701

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Bureau of Land Management
2909 West Second St.
Roswell, NM 88201

4a. Article Number

P 963 560 114

4b. Service Type

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery

1-9-98

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Texaco Exploration & Producing
P. O. Box 3109
Midland, TX 79702

4a. Article Number
P 963 560 113

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery [illegible] 9 9 [illegible]

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent) [signature]

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Shackelford Oil Company
203 W. Wall
Midland, TX 79701

4a. Article Number
P 963 560 115

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery 1/9/98

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent) [signature]

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

PIONEER
NATURAL RESOURCES USA, INC.

January 7, 1998

Shackelford Oil Company
203 W. Wall
Midland, TX 79701

RE: Application for Authorization to Inject
Lusk West (Delaware) Unit #909
Lea County, New Mexico

Gentlemen:

Pioneer Natural Resources USA, Inc. is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil and gas.

The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD and 1280 PSI, respectively. The proposed injector will be called the Lusk West (Delaware) Unit #909, which will be located in Unit I, 1980' FSL & 940' FEL, Section 29, T19S, R32E, Lea County, NM.

The Oil Conservation Division requires that the attached information be sent to all offset operators and the surface owner.

Any questions concerning this application should be forwarded to the attention of Scott H. Lackey at the address above or call (915) 571-3976.

Sincerely,

Pioneer Natural Resources USA, INC.

Scott H. Lackey
Sr. Operation Engineer

Enclosures

PIONEER
NATURAL RESOURCES USA, INC.

January 7, 1998

Bureau of Land Management
2909 West Second St.
Roswell, NM 88201

RE: Application for Authorization to Inject
Lusk West (Delaware) Unit #909
Lea County, New Mexico

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Sincerely,

Pioneer Natural Resources USA, INC.

Scott H. Lackey
Sr. Operation Engineer

Enclosures

P.O. BOX 3178 · MIDLAND, TEXAS 79702-3178 · 303 W. WALL, SUITE 101 · MIDLAND, TEXAS 79701 · MAIN: (915) 683-4768 · FAX: (915) 571-5063

PIONEER
NATURAL RESOURCES USA, INC.

January 7, 1998

Texaco Exploration & Producing
P. O. Box 3109
Midland, TX 79702

RE: Application for Authorization to Inject
Lusk West (Delaware) Unit #909
Lea County, New Mexico

Gentlemen:

Pioneer Natural Resources USA, Inc. is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil and gas.

The applicant proposes to inject saltwater into the Delaware Formation, at an approximate depth, rate, and pressure of 6450', 900 BWIPD and 1280 PSI, respectively. The proposed injector will be called the Lusk West (Delaware) Unit #909, which will be located in Unit I, 1980' FSL & 940' FEL, Section 29, T19S, R32E, Lea County, NM.

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Any questions concerning this application should be forwarded to the attention of Scott H. Lackey at the address above or call (915) 571-3976.

Sincerely,

Pioneer Natural Resources USA, INC.

Scott H. Lackey
Sr. Operation Engineer

Enclosures

P.O. BOX 3178 · MIDLAND, TEXAS 79702-3178 · 303 W. WALL, SUITE 101 · MIDLAND, TEXAS 79701 · MAIN: (915) 683-4768 · FAX: (915) 571-5063

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Div.
P.O. Box 1980
Hobbs, NM 88241

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on reverse side

5. Lease Serial No.
NM LC063586

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA/Agreement, Name and/or No.
Lusk West (Delaware) Unit

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other Injector

8. Well Name and No.
#909

2. Name of Operator
Pioneer Natural Resources USA, Inc.

9. API Well No.
30-025-34283

3a. Address
P.O. Box 3178 Midland, TX 79702

3b. Phone No. (*include area code*)
915/571-1363

10. Field and Pool, or Exploratory Area
Lusk Delaware, West

4. Location of Well (*Footage, Sec., T., R., M., or Survey Description*)
UL - I, 1980' FSL & 940' FEL, Sec. 29, T19S, R32E

11. County or Parish, State
Lea NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Coommpleted Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

See Attached Chronology Report

ACCEPTED FOR RECORD
acs

14. I hereby certify that the foregoing is true and correct
Name (*Printed/Typed*) Jeanie Dodd

Title Operations Tech

Date 4/23/98

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

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.

(*Instructions on reverse*)

PERC

WELL CHRONOLOGY REPORT

WELL NAME : LUSK WEST (DELAWARE) UNIT #909 WELL ID # : 924998909

OPERATOR : PIONEER NATURAL RESOURCES COMPANY DISTRICT :

FIELD : LUSK WEST (DELAWARE) LOCATION : UNIT I, 1980' FSL & 940' FEL, SEC. 29, T19S, R3

COUNTY & STATE : LEA NM CONTRACTOR :

NWI WI% : 90.93620 AFE# : 318003 API# : 30-025-34283 PLAN DEPTH : 6,630 SPUD DATE : 2/16/98

DHC : $286,288 CWC : $135,299 AFE TOTAL : $421,587 FORMATION : BRUSH CANYON

REPORT DATE : 2/17/98 MD : 439 TVD : 0 DSS : 1 DOL : 0 MW : 8.5 VISC : 29

DAILY DETAILS : PRESENT OPT: DRILLING AT 439'.
MIRU LAKOTA RIG #4. SPUD WELL AT 6:00 PM 2/16/98. DRLG FROM 40' TO 254'. RUN SURVEY AT 214'=1/4DEG. DRLG 254' TO 439'. REPORT TIME. DRILLING AT 439' WITH FULL RETURNS.

REPORT DATE : 2/18/98 MD : 860 TVD : 0 DSS : 2 DOL : 1 MW : 8.4 VISC : 28

DAILY DETAILS : PRESENT OPT. RUNNING 13 3/8" CSG
DRLG 439' TO 526'. SERVICE RIG. DRLG 526' TO 707'. RUN SURVEY AT 667'=1/2DEG. DRLG 707' TO 860'. CIRC & SPOT PILL. TOH. RU CSG CREW.

REPORT DATE : 2/19/98 MD : 1,222 TVD : 0 DSS : 3 DOL : 2 MW : 9.8 VISC : 28

DAILY DETAILS : PRESENT OPT: DRILLING AT 1222' WITH FULL RETURNS 30' TO 35' P/HR.
RUNNING 13 3/8" CSG. RU & CEMENTED. CIRC. WOC 4 HOURS. SET SLIPS. CUT OFF 13 3/8" CSG. WELDED ON WELLHEAD. NU BOP & TESTED BOP & CSG TO 600 PSI FOR 30 MINUTES. TIH. DRLG OUT CMT. TESTED CSG TO 600 PSI, OK. SURVEY AT 932'=1 1/4DEG. DRILLED TOTAL OF 362' IN 10 HOURS. CSG & CMT DETAIL BELOW:

1 - 13 3/8" GUIDE SHOE	.75
1 - 13 3/8" SHOE JT 54.50# J-55 ST&C	45.75
1 - 13 3/8" INSERT FLOAT VALVE	
18 - 13 3/8" 54.50# J-55 ST&C CSG	821.90
TOTAL CASING	868.42
CUT OFF	25.42
CASING LEFT IN HOLE	843.00
KB	17.00
CASING LANDED KB	860.00

RAN 6 CENTRALIZERS. JTS # 19, 16, 13, 10, 7, & 3. WELDED BOTTOM JTS. RU BJ & CEMENTED WITH 475 SX 35/65 POZ CLASS "C" + 6% GEL + 5% SALT + .25 LB/SX CELLO FLAKES, WT 12.7 PPG, YIELD 1.94 CU. FT/SX, WTR 10.40 GALS SX. TAIL W/200 SX CLASS "C" NEAT + 2% CACL2 + .25 LB/SX CELLO FLAKES, WT 14.84 PPG, YIELD 1.32 GALS SX. PLUG DOWN AT 9:55 AM, 2/18/98. FLOAT HELD.

REPORT DATE : 2/20/98 MD : 2,281 TVD : 0 DSS : 4 DOL : 3 MW : 10.0 VISC : 29

DAILY DETAILS : PRESENT OPT: DRILLING AT 2281'.
DRLG 1222' TO 1411'. SERVICE RIG. DRLG 1411' TO 1474'. RUN SURVEY AT 1432'=1 1/4DEG. DRLG 1474' TO 1852'. RUN SURVEY AT 1852'=1 1/4DEG. DRLG 1852' TO 2198'. RUN SURVEY AT 2158'=1 1/4DEG. DRLG 2198' TO 2281'. DRILLED TOTAL OF 1059' IN 23 HOURS. AT REPORT TIME: DRILLING WITH FULL RETURNS 30' TO 35' P/HR.

PERC

WELL CHRONOLOGY REPORT

REPORT DATE : 2/21/98 MD : 2,761 TVD : 0 DSS : 5 DOL : 4 MW : 10.0 VISC : 29

DAILY DETAILS : PRESENT OPT: DRILLING AT 2761'.
DRLG 2281' TO 2355'. SERVICE RIG. DRLG 2355' TO 2480'. SURVEY MISS RUN. DRLG 2480' TO 2511'. SURVEY AT 2471'=2DEG. DRLG 2511' TO 2761'. DRILLED TOTAL OF 480' IN 23 1/4 HOURS. REPORT TIME: DRILLING WITH FULL RETURNS 18' TO 20' P/HR.

REPORT DATE : 2/22/98 MD : 3,380 TVD : 0 DSS : 6 DOL : 5 MW : 9.9 VISC : 28

DAILY DETAILS : PRESENT OPT: DRILLING AT 3380'.
DRLG FROM 2761' TO 2824'. SERVICE RIG. DRLG 2824' TO 2919'. RUN SURVEY AT 2879'=1DEG. DRLG 2919' TO 3380'. PARTIAL RETURNS LOST @ 3113' - 3200'. DRLG W/70% TO 80% RETURNS @ REPORT TIME.

REPORT DATE : 2/23/98 MD : 3,720 TVD : 0 DSS : 7 DOL : 6 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 3720', DRLG 340'/13-1/2 HRS FMN SHALE & ANHY.

REPORT DATE : 2/24/98 MD : 3,850 TVD : 0 DSS : 8 DOL : 7 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 3850', DRLG 130'/5-1/2 HRS FMN ANHY & DOLO. STUCK PIPE @ 3680' - WORKED FREE. TOH TO CHANGE BITS.

REPORT DATE : 2/25/98 MD : 3,937 TVD : 0 DSS : 9 DOL : 8 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 3937', FISHING 87'/2-3/4 HRS FMN ANHY & DOLO.

REPORT DATE : 2/26/98 MD : 4,150 TVD : 0 DSS : 10 DOL : 9 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 4150', DRLG 213'/7-3/4 HRS FMN ANHY & DOLO.

REPORT DATE : 2/27/98 MD : 4,182 TVD : 0 DSS : 11 DOL : 10 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 4182', WOC: DRL TO 4182', MADE 50'/2 HRS. (FMN) ANHY DOLO. CIRC 2-1/2 HRS & POOH. USED TPS, IFV (AF) & DV TOOL 2513'. PD @ 5:45 A.M. 2/27/98. WOC & NU. RAN 7-7/8" BIT, PRESS CSG & BOP TO 1000 PSIG, OK. DRL OUT CMT & DRL AHEAD.

REPORT DATE : 2/28/98 MD : 4,182 TVD : 0 DSS : 12 DOL : 11 MW : 8.5 VISC : 28

DAILY DETAILS : DEPTH 4182', DRLG CMT FMN CEMENT.

PERC

WELL CHRONOLOGY REPORT

REPORT DATE : 3/1/98 MD : 4,182 TVD : 0 DSS : 13 DOL : 12 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 4182', DRLG CMT FMN CEMENT.

REPORT DATE : 3/2/98 MD : 4,276 TVD : 0 DSS : 14 DOL : 13 MW : 8.4 VISC : 28

DAILY DETAILS : DEPTH 4276', DRLG 94'/3 HRS FMN SAND & DOLO.

REPORT DATE : 3/3/98 MD : 4,925 TVD : 0 DSS : 15 DOL : 14 MW : 8.5 VISC : 28

DAILY DETAILS : DEPTH 4925', DRLG 649'/23-1/4 HRS FMN DOLOMITE.

REPORT DATE : 3/4/98 MD : 5,735 TVD : 0 DSS : 16 DOL : 15 MW : 8.5 VISC : 28

DAILY DETAILS : DEPTH 5735', DRLG 810'/23 HRS FMN SAND & DOLO.

REPORT DATE : 3/5/98 MD : 6,505 TVD : 0 DSS : 17 DOL : 16 MW : 8.5 VISC : 28

DAILY DETAILS : DEPTH 6505', DRLG 770'/21-1/2 HRS FMN SHALE & LIME.

REPORT DATE : 3/6/98 MD : 6,630 TVD : 0 DSS : 18 DOL : 17 MW : 8.4 VISC : 40

DAILY DETAILS : TD 6630', RDRT: MADE 125'/4-1/2 HRS (FMN:) SHALE & LIME. RTD @ 11:30 A.M. 3/5/98. CIRC 1/2 HR & POOH. USED RGS, LD/FC (AF) 20 CENT. DISPL W/750 GAL 10% ACETIC ACID & 2% KCL WTR. PD @ 12:30 A.M. 3/6/98. SET SLIPS, CUT OFF, RDRT.

Form 3160-3
(July 1992)

BARRY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

204

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM LC063586

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ]

7. UNIT AGREEMENT NAME: Lusk West (Delaware) Unit

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: #909

2. NAME OF OPERATOR
Pioneer Natural Resources USA, Inc.

9. API WELL NO.:

3. ADDRESS AND TELEPHONE NO.
P.O. Box 3178 Midland, TX 79702 915/571-3937

10. FIELD AND POOL, OR WILDCAT: Lusk Delaware, West

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
UL - I, 1980' FSL & 940' FEL, Sec. 29, T19S, R32E
At proposed prod. zone
Same as above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 29, T19S, R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
40 miles West-Southwest of Hobbs, NM

12. COUNTY OR PARISH: Lea

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 940'

16. NO. OF ACRES IN LEASE: 560

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 330'

19. PROPOSED DEPTH: 6700'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3559' GL

22. APPROX. DATE WORK WILL START*: February 1, 1998

23. PROPOSED CASING AND CEMENTING PROGRAM — CAPITAN CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8", J55	54.5#	850'	C675 sx TO
11"	8 5/8", J55	24# & 32#	4200'	1860 sx - Two Stage
7 7/8"	5 1/2", K-55	15.5#	6630' TD	900 sx

SEE ATTACHED

OPER. ORGANIC NO. 36324
PROPERTY NO. 22643
POOL CODE 41540
EFF. DATE 2/3/98
API NO. 30-025-34295

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Jeanie Dodd TITLE Engineering Tech DATE 12/23/97

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY (ORIG. SGD.) ARMANDO A. LOPEZ TITLE Act... DATE 1/30/98

*See Instructions 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.

ATTACHMENT
Lusk West (Delaware) Unit #909

The operator proposes to drill to a depth sufficient to test all of the Delaware Sands for oil. If productive, 5 ½" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific plans, as per On Shore Oil & Gas Order #1 are included in the following attachments.

DRILLING PROGRAM

Exhibit #1 - BOPE Schematic

SURFACE USE AND OPERATING PLAN

Exhibit #2 - Location & Elevation Plat
Exhibit #3 - Lease Road & Topo Plat
Exhibit #4 - Highway Access Plat
Exhibit #5 - Existing Wells in One Mile Radius
Exhibit #7 - Water Injection Distribution Lines
Exhibit #8 - Water Injection System - Topo Plat
Exhibit #9 - Drilling Rig Layout - Schematic

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34283	41540	Lusk Delaware, West

Property Code	Property Name	Well Number
022063	Lusk West (Delaware) Unit	909

OGRID No.	Operator Name	Elevation
036324	Pioneer Natural Resources USA, Inc.	3559'

Surface Location

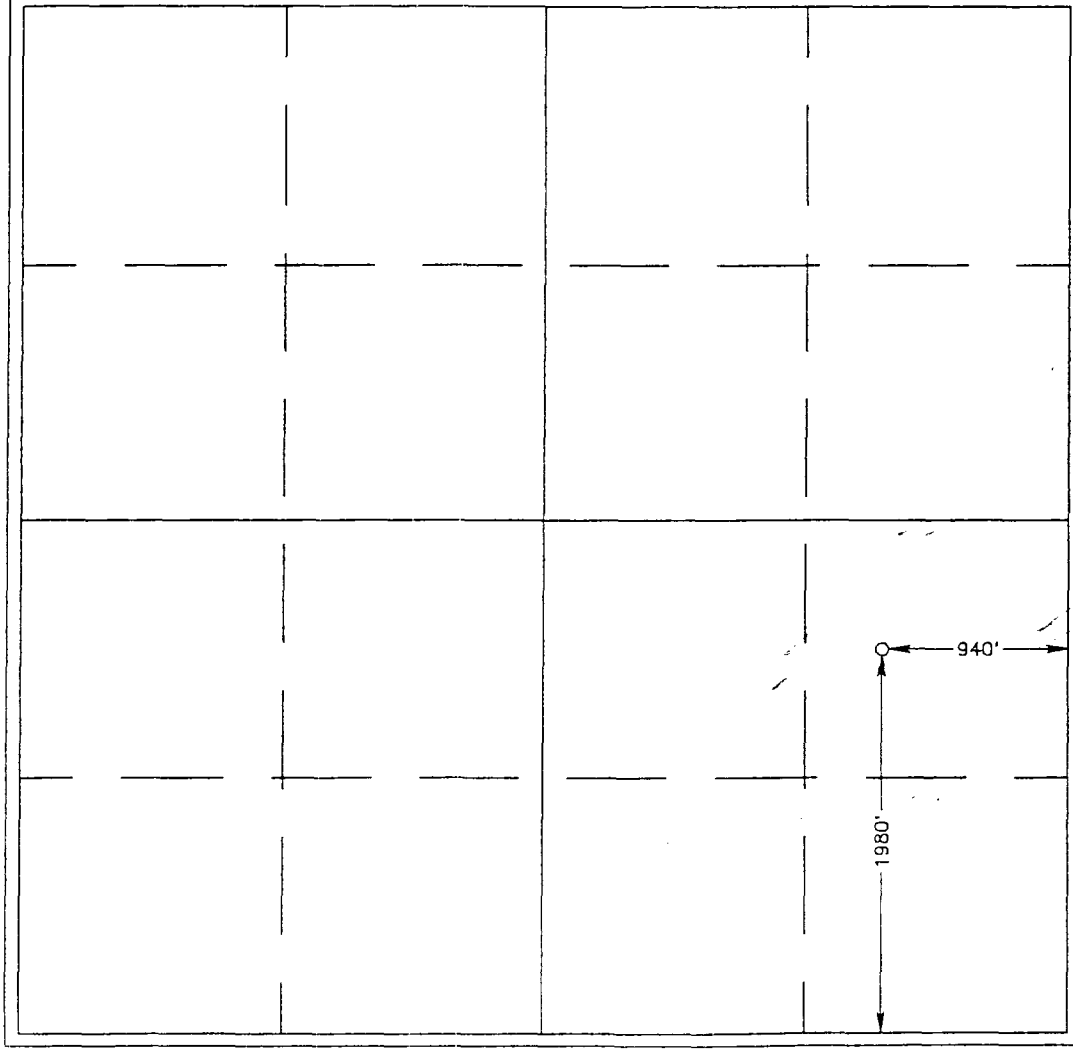
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	29	19 S	32 E		1980	SOUTH	940	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Jeanie Dodd
Signature

Jeanie Dodd
Printed Name

Engineering Tech
Title

12/23/97
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

DECEMBER 18, 1997
Date Surveyed CDG

Signature & Seal of Professional Surveyor

Ronald J. Eidson 12-19-97

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. EIDSON 12641

DRILLING PROGRAM

Attached to Form 3160-3
Pioneer Natural Resources USA, Inc.
Lusk West (Delaware) Unit #909
1980' FSL & 940' FEL
NE/SE, Sec. 29, T19S, R32E
Lea County, New Mexico

1. Geologic Name of Surface Formation:

   Quaternary Alluvium & Bolson deposits (dune sand; sandy, silty clay)

2. Estimated Tops of Important Geologic Markers:

Rustler	860'	Base Brushy	7000'
Yates	2560'	Base Sand Springs	7170'
Capitan Reef	2730'		
Base Capitan Reef	4380'		
Top Delaware	4380'		
Manzanita	5500'		

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Surface Water Sands	above 250'	Fresh water
Yates	2560'	Oil
Delaware	4380' to 7170'	Oil

   No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 850' +/- and circulating cement to the surface. Potash will be protected by setting 8-5/8" casing at 4200'+/- and circulating cement back to the surface with the use of a stage tool at 2600'+/- . In the event 5-1/2" production casing is set, sufficient cement volume will be pumped to attempt to fill the entire annular area from TD to surface.

4. Casing Program:

Hole Size	Interval	OD csg	Weight,Grade, Jt.,Cond.Type
17-1/2"	0 - 850'	13-3/8"	54.5#, J-55, ST&C, New
12-1/4"	0 - 2600'	8-5/8"	24#, J-55, ST&C, New
12-1/4"	2600 - 4200'	8-5/8"	32#, J-55, ST&C, New
7-7/8"	0 - 6630'	5-1/2"	15.5#, K-55, LT&C, New

Cementing Program:

13-3/8" Surface Casing	475 sx 35/65 Poz "C", 6% gel., 5% salt, 1/4#/sx cellophane flakes; followed by 200 sx "C", 2% CaCl, 1/4#/sx cellophane flakes.
8-5/8" Intermediate: (Stage Tool @ 2600')	1st stage: 685 sx 50/50 Poz "C", 10% gel., 5% salt, followed by 200 sx "C", 1% CaCl.
	2nd stage: 825 sx 50/50 Poz "C", 10% gel., 5% salt, followed by 150 sx "C", 2% CaCl.
5-1/2" Production Casing:	900 sx 50/50 Poz "C", 2% gel., 5% salt, 0.5% FL-25 (Fluid Loss). This is designed to bring cement to surface.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 PSI WP) preventer and a bag-type (Hydril) preventer (3000 PSI WP). Both units will be hyraulically operated and the ram-type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. Both BOP's will be installed on the 13-3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 PSI before drilling out of surface casing. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 PSI and the bag-type (Hydril) preventer will be tested to 70% of rated working pressure (2100 PSI).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily time sheets.

A 2" kill line and a 3" choke line will be installed on the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include the choke lines and choke manifold (3000 PSI WP), kelly cock and floor safety valve (inside BOP).

6. Types and Characteristics of the Proposed Mud System:

This well will be drilled to TD with a combination of fresh water, brine and fresh water polymer systems. The applicable depths and properties of systems are planned as follows:

DEPTH	TYPE	WEIGHT (ppg)	VISCOSITY (Sec)	WATER LOSS (cc)
0 - 850'	Fresh Water-Gel	8.4 - 8.9	30 - 32	25 cc - N/C
850 - 4200'	Brine Water	9.9 - 10.1	28 - 29	N/C
4200 - 6000'	Fresh Water	8.4 - 8.5	28	N/C
6000 - TD	Fresh Water, Gel, Polymer	8.7 - 9.1	30 - 36	12 cc or less

Loss of circulation may occur in the Capitan Reef at about 2800'. If loss can not be corrected reasonably, it may be necessary to dry-drill from the loss depth to 4200'+/- . Sufficient mud mixing materials to maintain the mud properties and to meet reasonable lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

A. A fully opened, fully serviceable drillpipe stabbing valve (inside BOP) with proper drillpipe connections will be on the rig floor at all times.

B. No H2S gas or abnormal pressures are known to exist, in this heavily developed area, down to the proposed TD. However, an H2S Contingency plan is attached and will be utilized during the drilling and completion operations of the well.

8. Logging, Testing and Coring Program:

A. No drill stem tests are planned for this well.

B. Open hole electric logs at TD are planned to be as follows:

Compensated Neutron w/Z-Density & GR & Caliper from TD to 4200'; Gamma-Ray to surface.

C. No conventional cores are planned

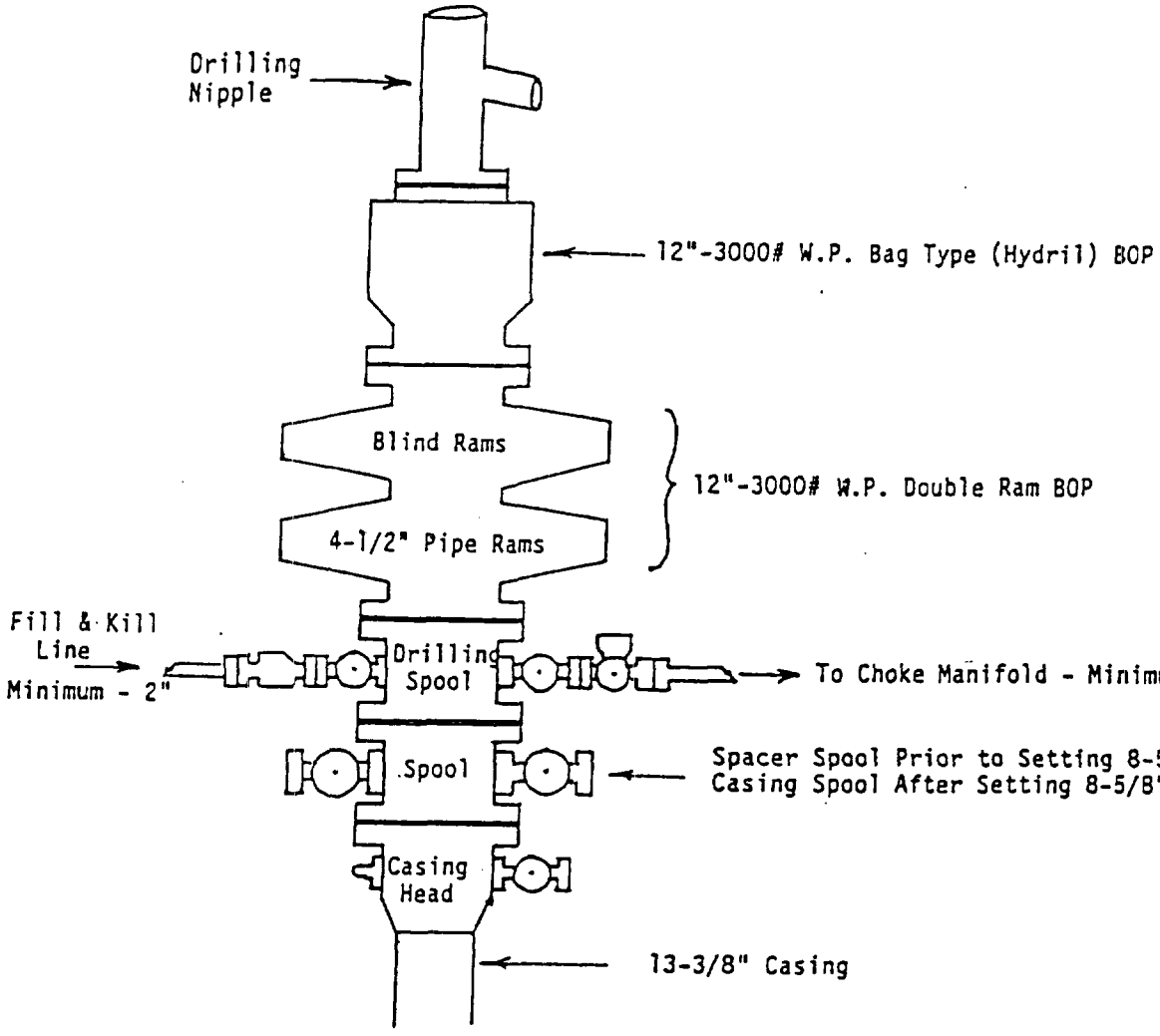
D. Additional evaluation may be required by the company geologist based on drilling shows and log evaluation.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

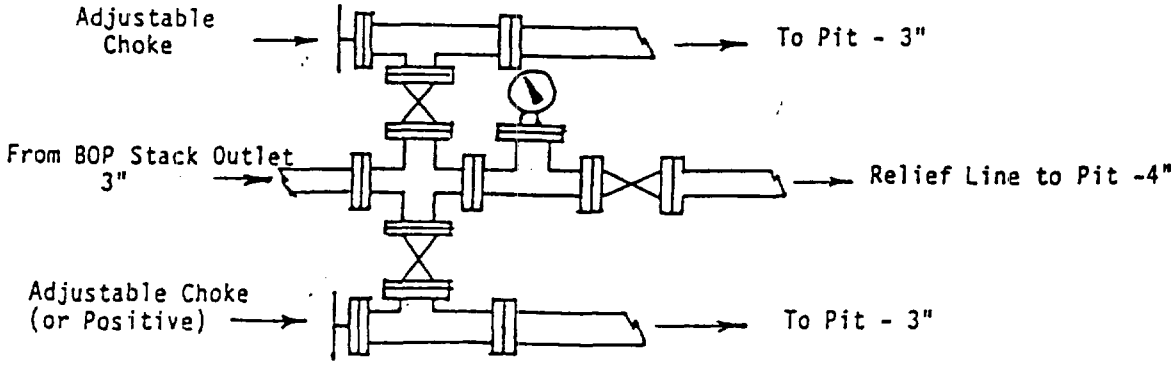
No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is expected to be 135 and the estimated maximum bottom hole pressure (BHP) is 2800 PSI. No H2S or other hazardous gases or fluid have been encountered, reported or are known to exist to this depth in this area. Some wells in this area have encountered severe to total loss of circulation in the Capitan Reef at about 2800'. If this occurs at this location, several attempts will be made to regain circulation, but if it appears necessary, the well will be dry-drilled to the intermediate casing depth of 4200'+/- .

10. Anticipated Starting Date and Duration of Operations:

Location construction work will not begin until approval has been received from the BLM. The anticipated spud date will be around February 1, 1998. Once commenced, the drilling operations should be completed in approximately sixteen (16) days. If the well is productive, an additional thirty (30) days will be required for completion and testing before a decision is made to tie into permanent water injection facilities.



CHOKE MANIFOLD SCHEMATIC
(3000 PSI W P)



Pioneer Natural Resources USA, Inc.

BOPE SCHEMATIC (3000 PSI W.P.)

Lusk West (Delaware) Unit #909
Lea County, New Mexico
Scale: 1"= 50' Date: June 1997

EXHIBIT #1

ATTACHMENT TO EXHIBIT #1
Notes Regarding the Blowout Preventers
Lusk West (Delaware) Unit #909
Lea County, New Mexico

1. The drilling nipple is to be constructed so that it can be removed without the use of a cutting torch and will have a minimum ID equal to the BOP bore.

2. Blowout preventer and all related equipment and fittings must be in good working condition and be 3000 PSI W.P. minimum.

3. All fittings and valves on the kill line, choke line and choke manifold are to be flanged.

4. All choke and kill lines are to be securely anchored, with special attention to the ends of all choke lines.

5. The blowout preventer control is to be located as close to the driller's position as feasible.

6. The blowout preventer closing equipment is to include a minimum of a 40 gallon accumulator with two independent sources of pump power on each closing unit installation. All closing equipment must meet API specifications for this equipment.

7. Hand wheels are to be properly installed and operable.

8. A safety valve, in full open position, must be readily available on the rig floor at all times with the proper drill pipe threads. This valve is to be full bore and 3000# W.P. minimum.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3
Pioneer Natural Resources USA, Inc.
Lusk West (Delaware) Unit #909
1980' FSL & 940' FEL
NE/SE, Sec. 29, T19S, R32E
Lea County, New Mexico

1. Existing Roads:

   A. The wellsite and elevation plat for this proposed well is shown in Exhibit #2. This well was staked by John West Engineering of Hobbs, New Mexico.

   B. All roads to the location are shown in Exhibit #3. The existing caliche roads are illustrated in dashed lines. A main North-South connecting access road will be constructed along the east quarter section line. This well location can be accessed from existing lease road. Up-grading of the existing road prior to drilling will be done where necessary as determined during the on-site inspection. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

   C. Directions to Locations: Go West out of Hobbs, New Mexico, on U. S. Highway 62/180 for 37 miles to N.M. Highway 243. From intersection of Hwy. 176 & Hwy. 62/180, go North on FM 243 4.4 miles. Turn right on Road #126, go 4.7 miles, turn right through cattle guard, go .8 miles turn right to location. Exhibit #4 shows this route to location.

2. Proposed Access Road:

   As shown on Exhibit #3, the existing lease road passes south of the proposed well sight. A 417' East-West caliche road will be constructed just west of the drilling location to serve as an access road.

3. Location of Existing Wells:

   Exhibit #5 shows all existing wells within a one-mile radius of this well. Production in this area is found in the Yates, Delaware, Bone Springs, Strawn and Morrow horizons.

4. Location of Existing and/or Proposed Facilities if Well is Productive:

   A. Pioneer Natural Resources USA, Inc. plans to construct a waterflood pump station serving this well: Lusk, W. (Delaware) Unit - WF Pump Station - Unit Letter "O", Sec. 20.

B. If this well is productive, it is planned that water injection will be delivered by a fiberglass distribution line to the well #909 of this Section 29. This waterflood pump station facility and water injection distribution lines are diagramed on Exhibit #6, #7 and #8

C. The fiberglass distribution lines will be 3" & 2" Smith FG pipe buried to a depth of about 30". It is proposed that this line will be laid along the west side of the proposed main North-South road. Starting from the wellhead, a 2" FG line will run 100' north then 417.1' and finally connect into the 3" main water distribution line. The proposed route for this water injection distribution line is shown on Exhibit #8.

5. Location and Type of Water Supply:

This well will be drilled using a combination of fresh water and brine mud system as indicated in the drilling program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck over the existing access roads or from the Carlsbad City water line as shown in Exhibit #3. The proposed main North-South caliche road and access road to the drilling location is also shown in Exhibit #8. No water well will be drilled on this location.

6. Construction Materials:

The drilling pad will be constructed by using caliche, watered, rolled and packed to 6" thickness. This material (approximately 1500 cubic yards) will be obtained from a BLM approved caliche pit in the vicinity. New proposed road construction will also use caliche, watered, rolled and packed for vehicle use.

7. Methods of Handling Waste Disposal:

A. Drill cuttings will be disposed of by putting them in the reserve pit.

B. Excess drilling fluid will be disposed of into the reserve pit. The reserve pit will be approximately 125' x 125' x 6' deep and will be lined with a 6 mil plastic to minimize the loss of fluid to the ground surface. The reserve pit will be fenced on three sides while drilling and the fourth side closed with fence immediately following the rig removal.

C. Water produced from the well during drilling or completion operations maybe disposed of into the reserve pit or into a steel tank for transport to an approved disposal system. Oil produced during the completion and testing operations will

be contained in steel tanks and transported by truck to the battery or to sale.

D. A portable chemical toilet will be provided on location for human waste during the drilling and completion operations.

E. A trash trailer will be utilized to contain all trash and garbage. This trash will be disposed of in an approved garbage disposal site. No hazardous chemicals or toxic waste will be utilized in, or generated by, this operation.

F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. No unnecessary materials will be left on the location.

8. Ancillary Facilities:

No campsite, airstrip or other facilities will be built as a result of the operations contemplated on this well.

9. Wellsite Layout:

A. The drilling pad layout is shown in Exhibit #9. Dimensions of the proposed pad and reserve pit are shown. Because the site area is almost level in its natural state, no major cuts or fills will be required. Top soil from the reserve pit construction will be stock piled as per BLM specifications.

B. Exhibit #9 shows the planned orientation of the rig and associated major components. No permanent living quarters are planned but a temporary foreman/tool-pusher's trailer will be on location during the drilling operations.

C. The reserve pit will be lined with a 6 mil plastic liner made for that purpose.

10. Plans for Restoration of the Surface:

A. When the drilling rig is removed, the reserve pit will be completely fenced off to prevent livestock and wild life from getting into it. Any oil on the surface of the fluid will be removed as much as feasible. The fluid in the pit will be allowed to evaporate until the material is reasonably dry. This drying is expected to require about 120 days. The pit will be broken out and allowed to dry a few more days and then leveled. The original top soil will be returned to the pit area and contoured to match the original topography as close as is feasible. All trash and loose pit lining material will be removed and hauled away to an approved disposal site.

B. If this well is completed as a active water injection well, the pit area will be treated as indicated above. The caliche from any area of the drilling pad not needed for water injection operations or facilities will be removed and used for road and location construction or repair, or if not needed, returned to the caliche pit from which it was taken.

C. If this well is plugged and abandoned the reserve pit will be treated as indicated in "A" above. The caliche will be removed from the drilling location and returned to the pit from which it was taken. The original top soil will be returned to the entire location which will be leveled and contoured to as nearly the original topography as possible.

D. Any restored area will be revegetated by re-seeding, during the proper planting time, with a seed mixture of grasses as recommended by the BLM.

11. Surface Ownership:

The wellsite and lease is entirely on Federal surface.

12. Other Information:

A. The area around the wellsite is brushy grassland with a very sandy top soil. The vegetation is native grasses with abundant oak brush, sage brush, yucca and prickly pear.

B. There is no permanent water or live streams of water in the immediate area.

C. A Cultural Resources Examination has been completed and the report has been forwarded to the BLM Office.

13. Lessee's or Operator's Representative and Certification:
The Pioneer Natural Resources USA, Inc. representative responsible for assuring compliance with the surface use plan is the following:

Mr. David Shrauner, Lusk Field Superintendent
Drawer E
Kermit, TX 79745

Resident Phone: 915/586-5818
Office Phone: 915/586-6511
Mobile Phone: 915/556-0188

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Pioneer Natural Resources USA, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

DATE: December 23, 1997

SIGNED _____
Danny Campbell, Engineer Supervisor

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	41540	Lusk Delaware, West

Property Code	Property Name	Well Number
022063	Lusk West (Delaware) Unit	909
OGRID No.	**Operator Name**	**Elevation**
036324	Pioneer Natural Resources USA, Inc.	3559'

Surface Location

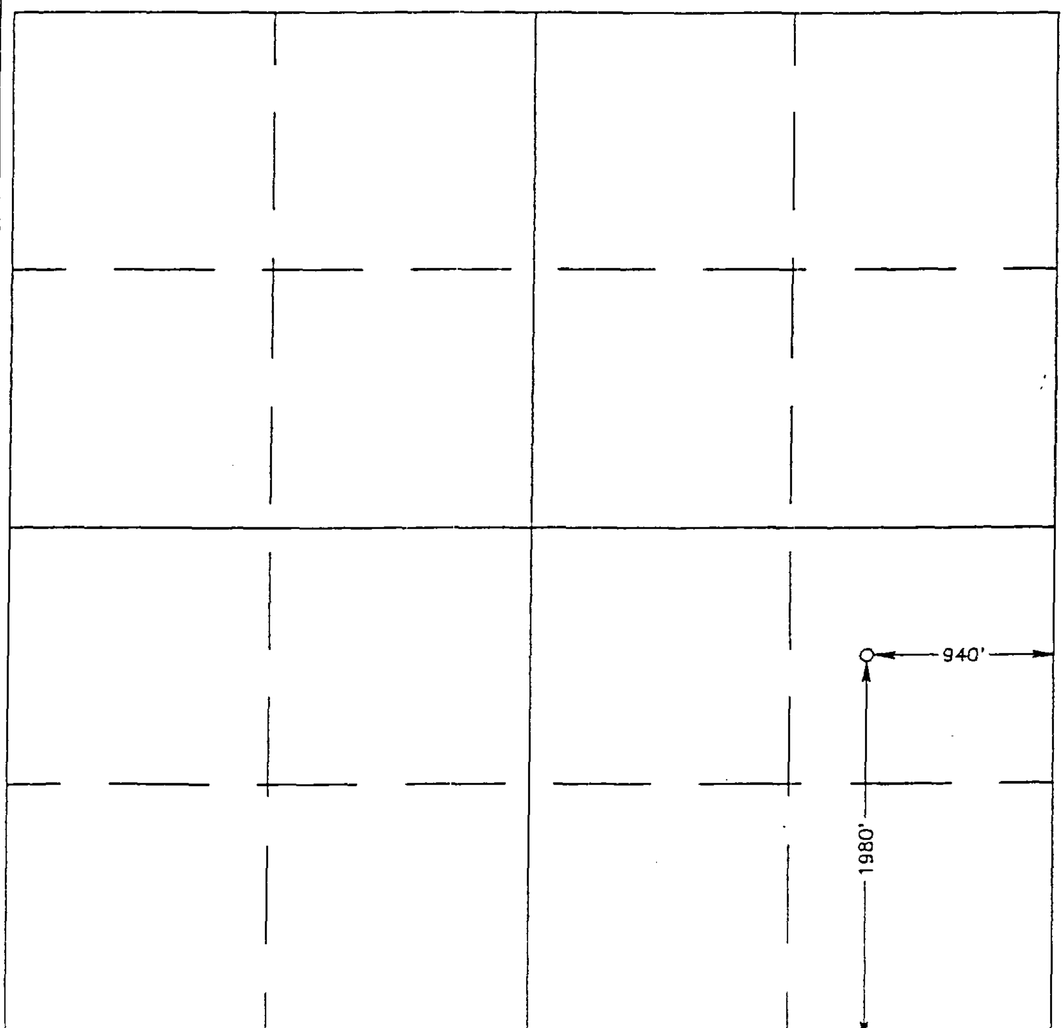
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	29	19 S	32 E		1980	SOUTH	940	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Jeanie Dodd
Signature

Jeanie Dodd
Printed Name

Engineering Tech
Title

12/23/97
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

DECEMBER 18, 1997
Date Surveyed CDG

Signature & Seal of Professional Surveyor

Ronald J. Eidson 12-19-97

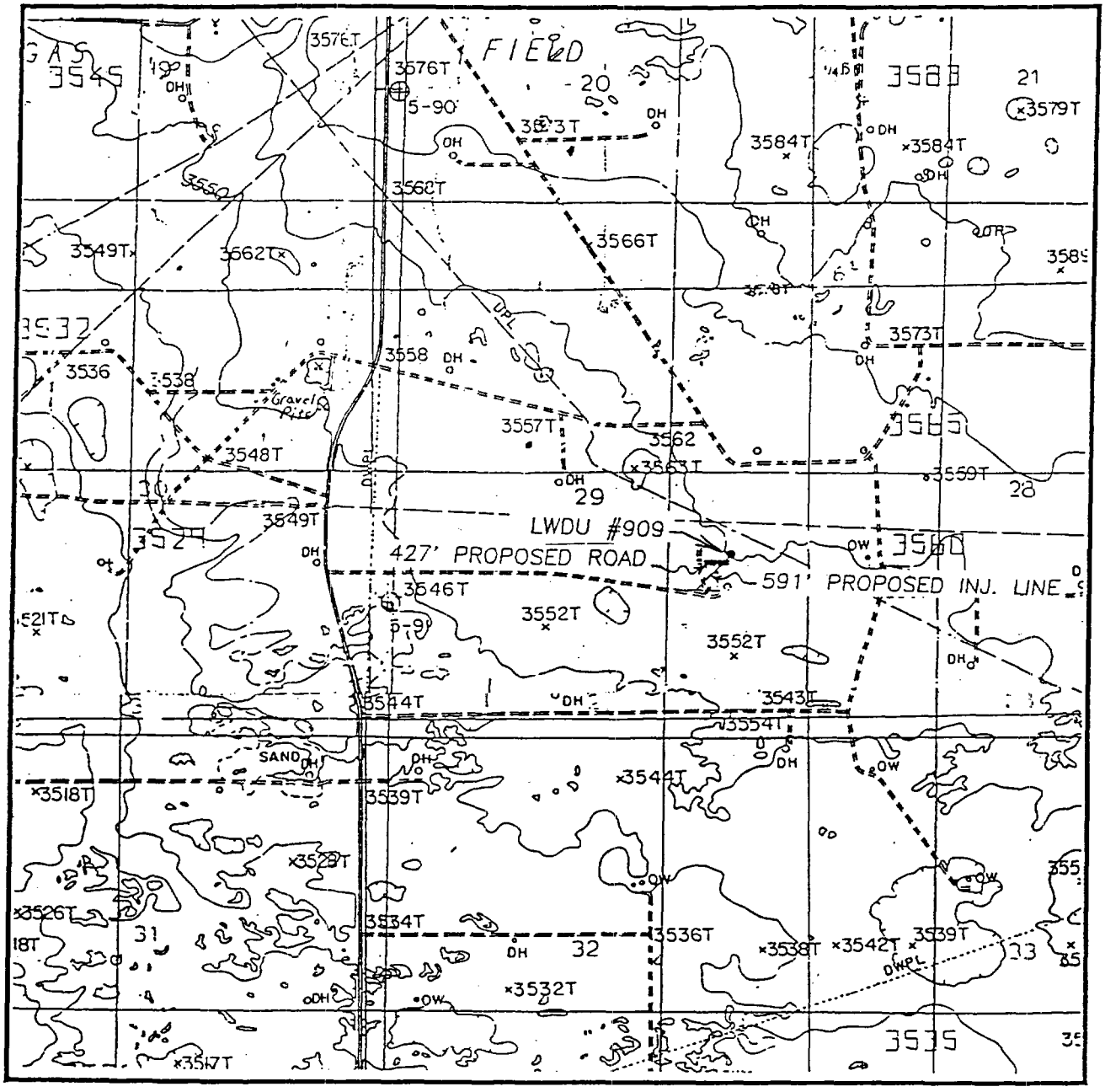
97-11-2048

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY EIDSON 12641

EXHIBIT #2

LOCATION VERIFICATION MAP

EXHIBIT #3



SCALE: 1" = 2000'

CONTOUR INTERVAL—10'

EXISTING ROAD

PROPOSED ROAD

SEC. 29 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1980' FSL & 940' FEL

ELEVATION 3559'

OPERATOR Pioneer Natural Resources USA, Inc.

LEASE Lusk West (Delaware) Unit

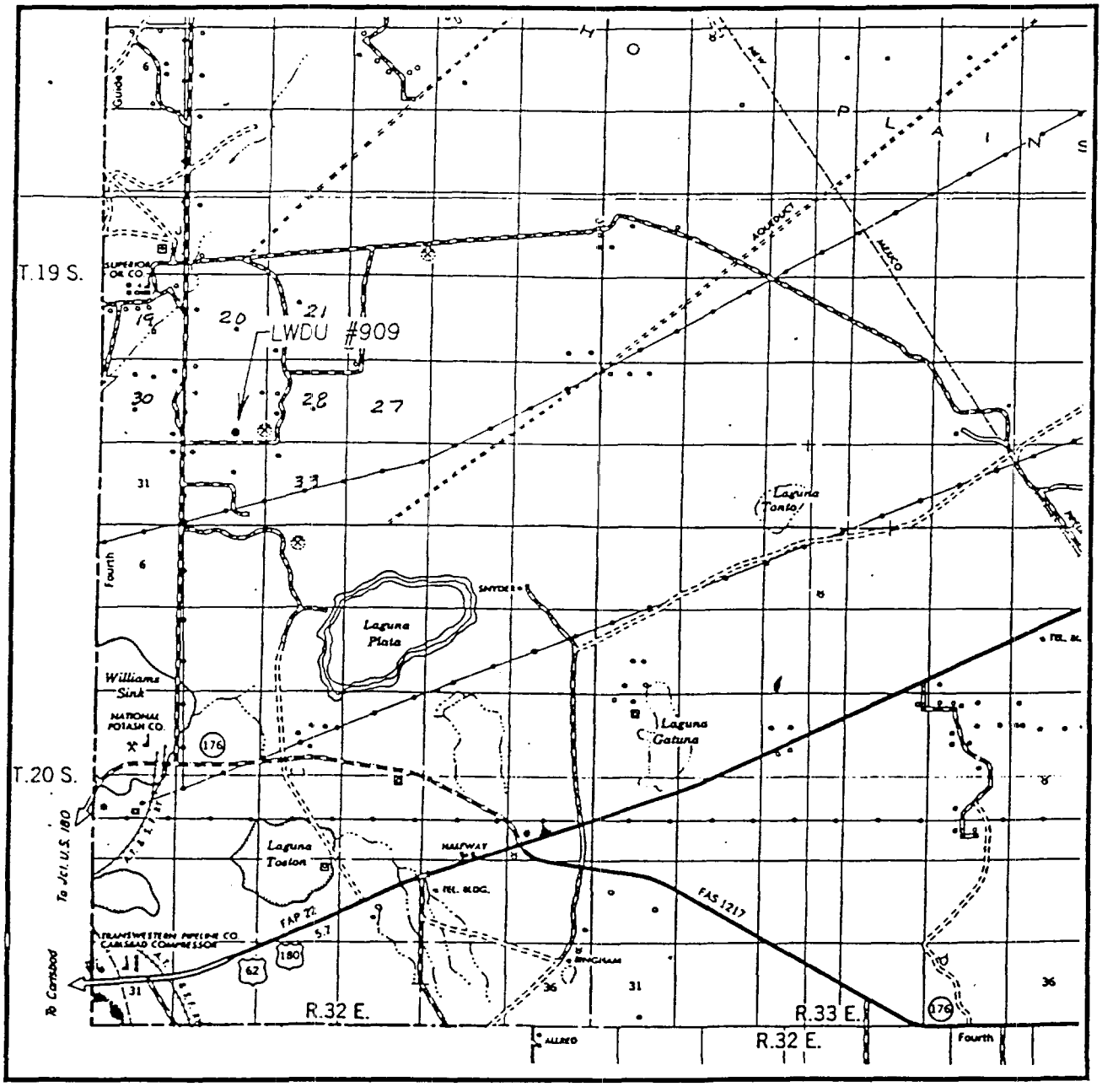
U.S.G.S. TOPOGRAPHIC MAP

GREENWOOD LAKE, WILLIAMS SINK, NM

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

VICINITY MAP

EXHIBIT #4



SCALE: 1" = 2 MILES

SEC. 29 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

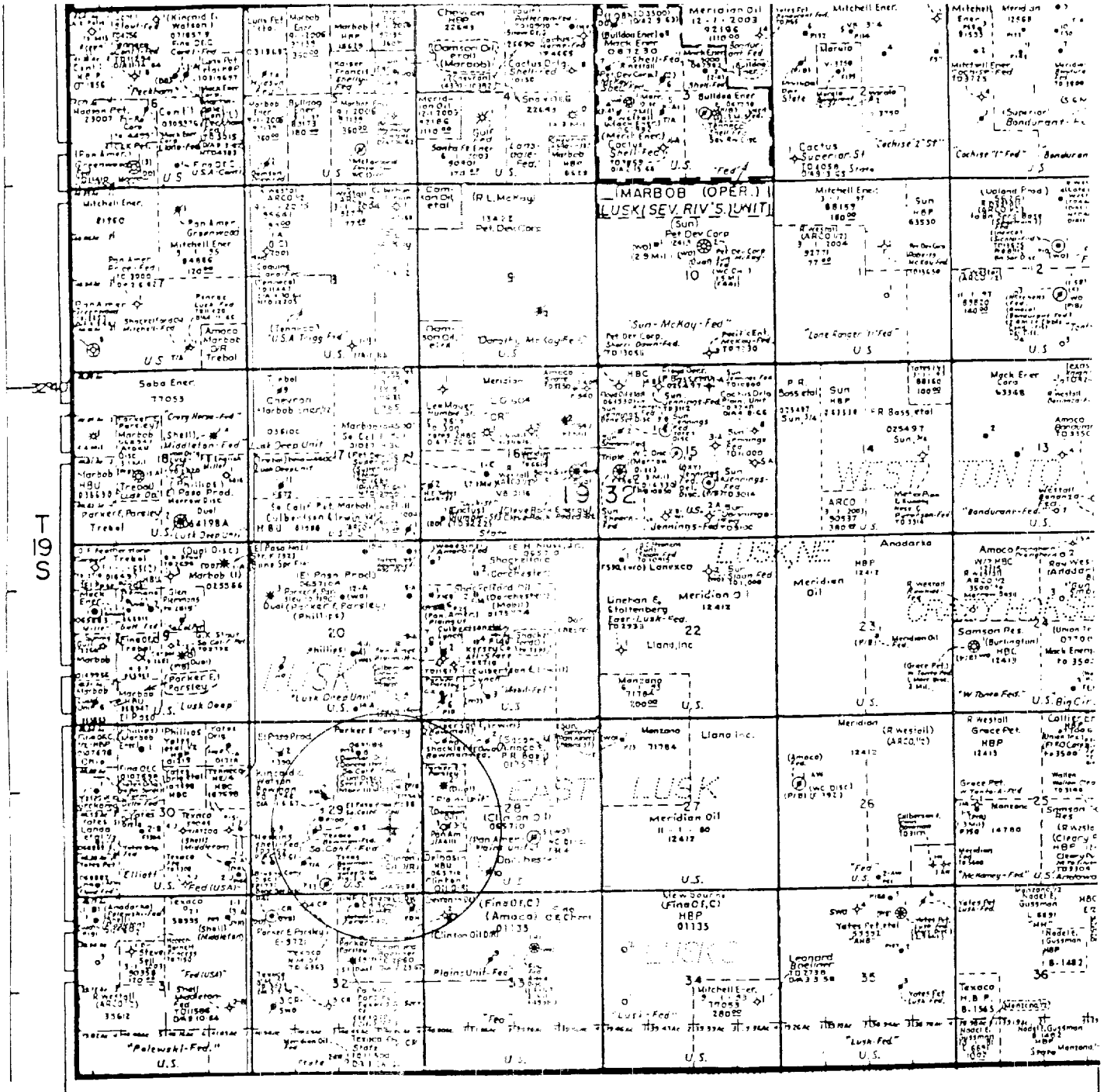
DESCRIPTION 1980' FSL & 940' FEL

ELEVATION 3559'

OPERATOR Pioneer Natural Resources USA, Inc.

LEASE Lusk West (Delaware) Unit

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117



PIONEER NATURAL RESOURCES USA, INC.

Existing Wells In One Mile Radius

Lusk West Delaware Unit #909

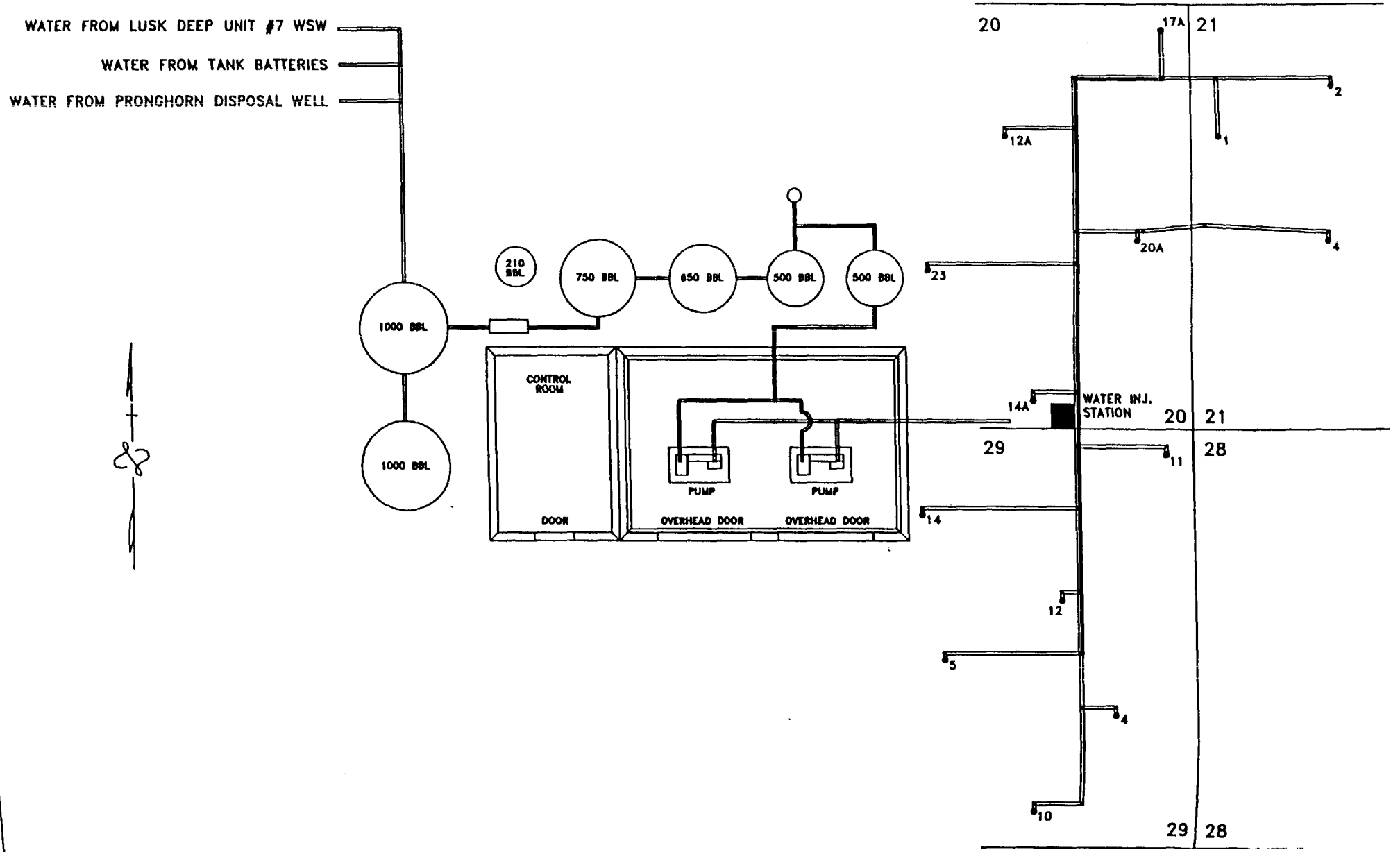
Lea County, New Mexico

Date: June 1997

EXHIBIT #5

EXHIBIT #6

FACILITY SCHEMATIC
LUSK, W. DELAWARE WATERFLOOD
LUSK, W. FIELD, LEA COUNTY, NEW MEXICO



LUSK INJECTION DESIGN
SECTIONS 20,21 & 29, T-19-S, R-32-E
LEA COUNTY, NEW MEXICO

EXHIBIT #7

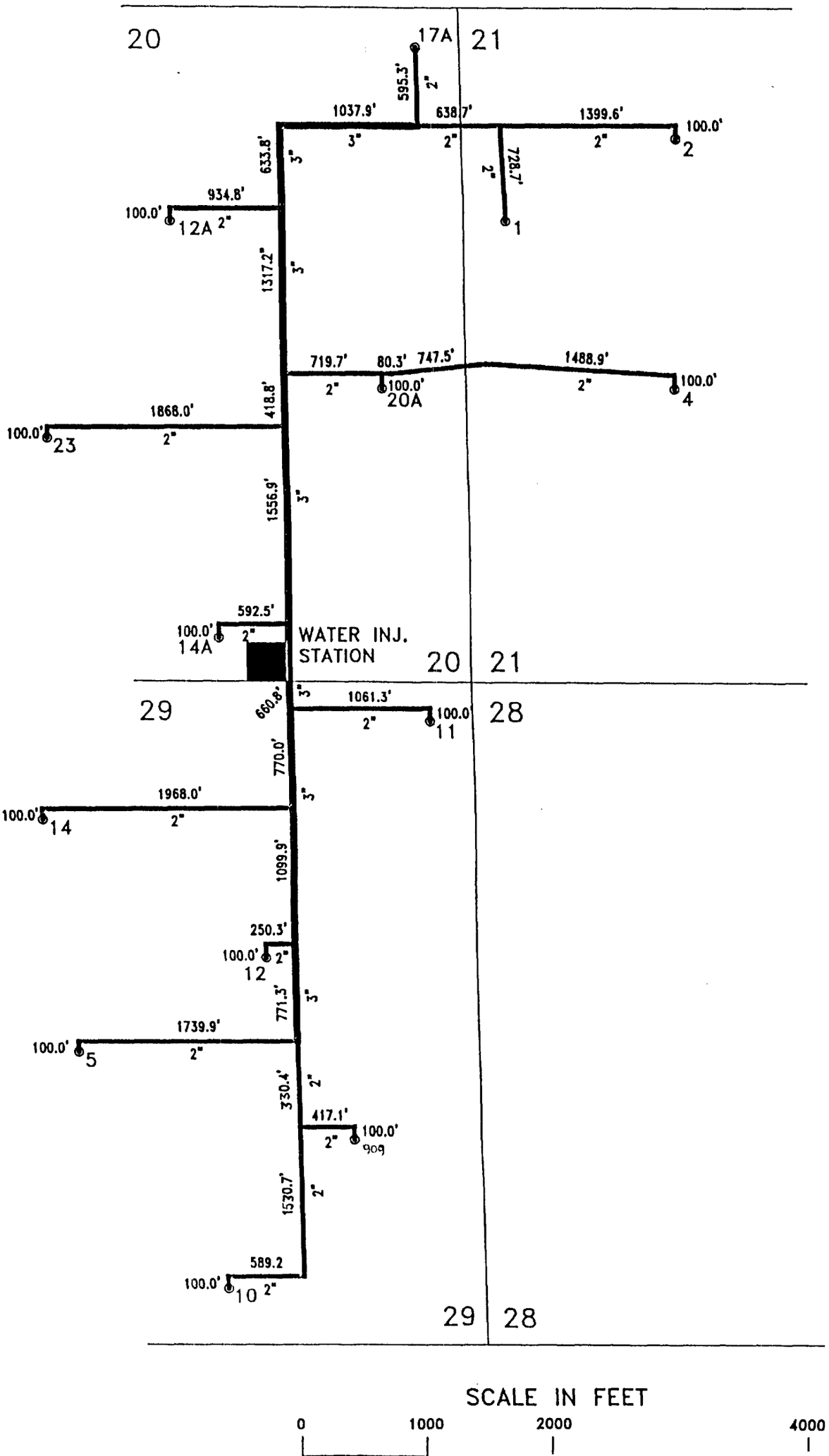
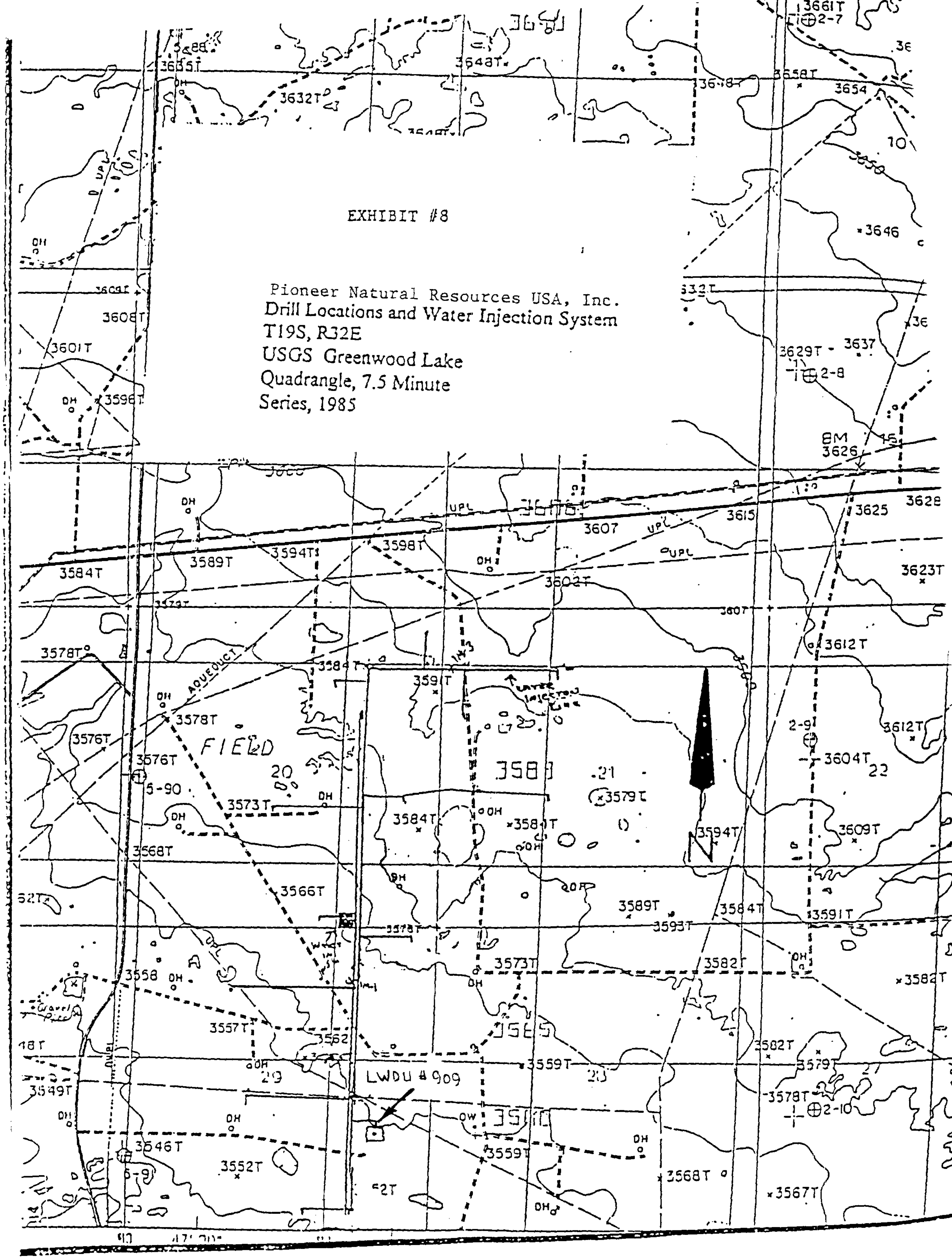


EXHIBIT #8

Pioneer Natural Resources USA, Inc.
Drill Locations and Water Injection System
T19S, R32E
USGS Greenwood Lake
Quadrangle, 7.5 Minute
Series, 1985



FIELD
AQUEDUCT
LWDU #909
Water Injection Line
20
21
22
29
2-7
2-8
2-9
2-10
5-90
BM 3626
3584T
3589T
3594T
3598T
3602T
3607
3615
3625
3628
3623T
3612T
3604T
3609T
3594T
3579T
3584T
3591T
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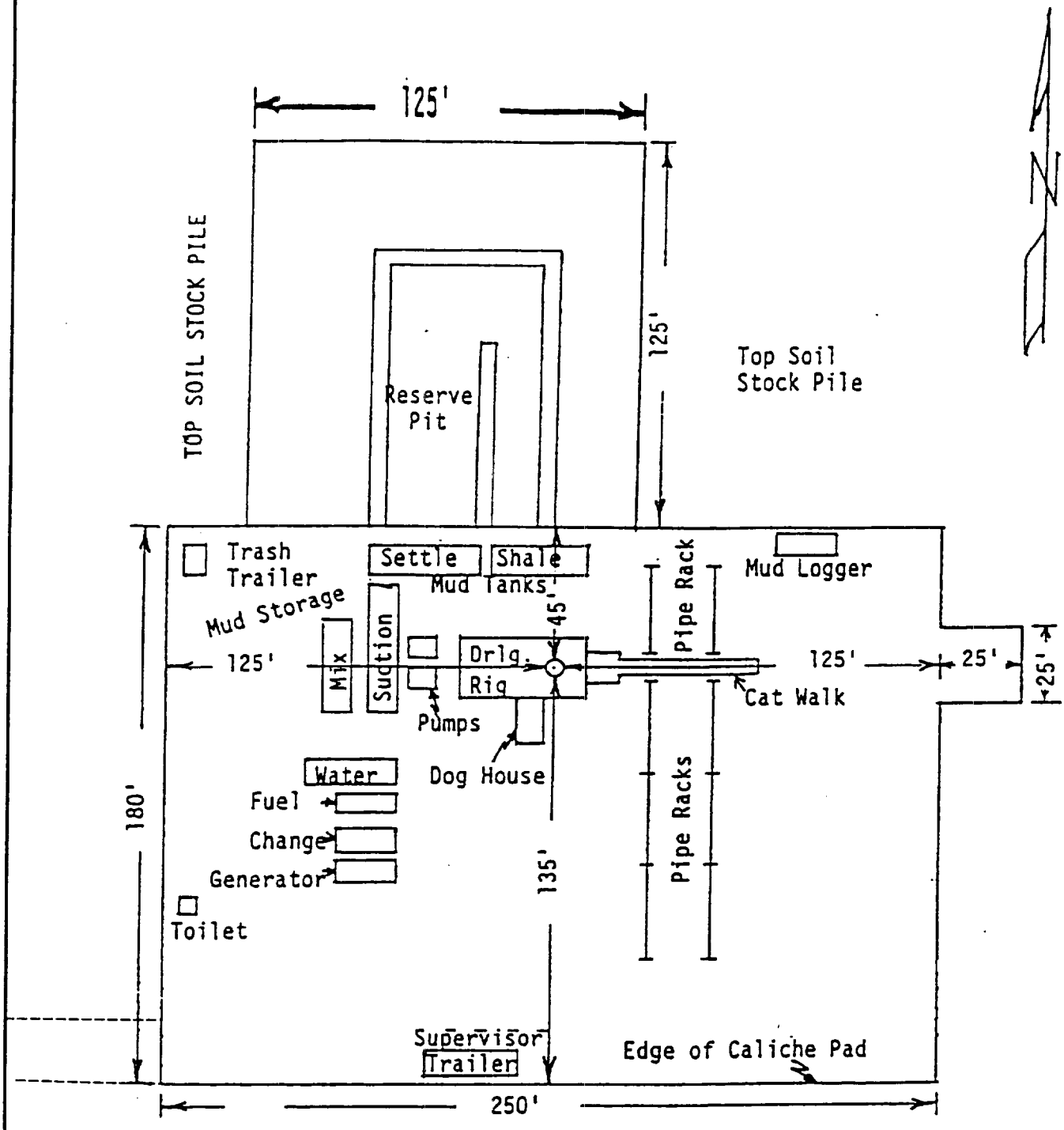

Proposed Road

Pioneer Natural Resources USA, Inc.

Drilling Rig Layout

LWDU #909

Lea County, New Mexico

Scale: 1"= 50' Date: June 1997

EXHIBIT #9