Kerr-McGee 8-16-93

STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
PO BOX 2088
SANTA FE, NM 87504-2088

FORM C-108
Revised 7-1-81

RECEIVED
OIL CONSERVATION DIVISION
'93 JUL 26 AM 10 37

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ____ Secondary Recovery ____ Pressure Maintenance __X__ Disposal ____ Storage
Application qualifies for administrative approval? __x__ Yes ____ No

II. OPERATOR: Osborn Heirs Company

ADDRESS: P. O. Box 17968, San Antonio, TX 78286

CONTACT PARTY: Joe D. Ramey PHONE: (505) 271-1150

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project: ____ Yes __X__ No
If yes, give the Division order number authorizing the project _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources 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.

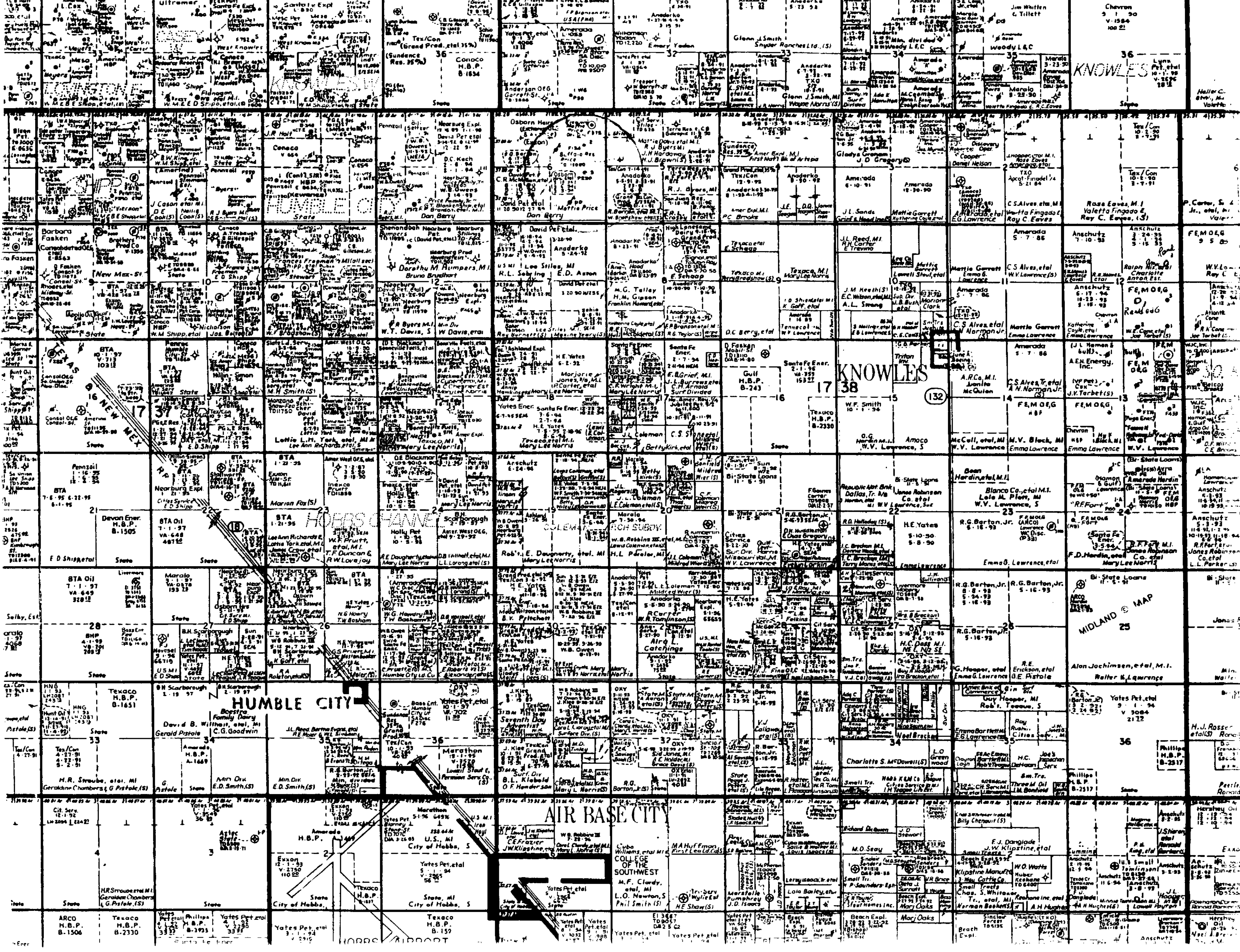
XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Joe D. Ramey TITLE: Consultant

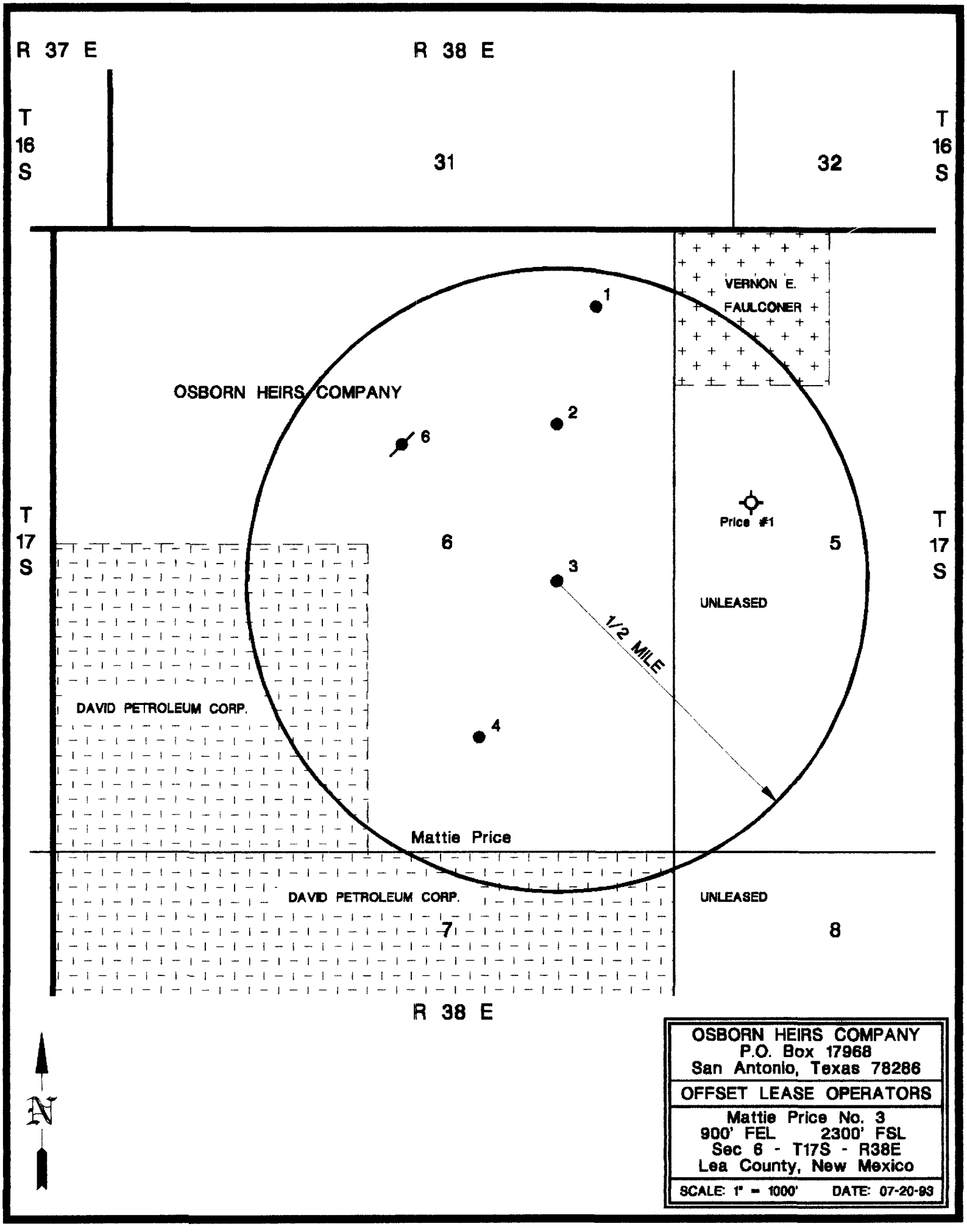
SIGNATURE: Joe D. Ramey DATE: _____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office



KNOWLES
HUMBLE CITY
AIR BASE CITY
COLLEGE OF THE SOUTHWEST
MIDLAND © MAP
TEXAS
NEW MEX
HOBBS CHANNEL
HOBBS AIRPORT



OSBORN HEIRS COMPANY
P.O. Box 17968
San Antonio, Texas 78286

OFFSET LEASE OPERATORS

Mattie Price No. 3
900' FEL 2300' FSL
Sec 6 - T17S - R38E
Lea County, New Mexico

SCALE: 1" = 1000' DATE: 07-20-93

OSBORN HEIRS COMPANY SEEKS APPROVAL TO CONVERT THE MATTIE PRICE NO.3, LOCATED 990 FEET FROM THE EAST LINE AND 2300 FEET FROM THE SOUTH LINE OF SECTION 6, TOWNSHIP 17 SOUTH, RANGE 38 EAST, LEA COUNTY, NEW MEXICO, TO A SALT WATER DISPOSAL WELL. THE WELL IS LOCATED FIVE MILES NORTH AND TWO MILES EAST OF HUMBLE CITY, NEW MEXICO. OSBORN WILL DRILL OUT CEMENT AND VARIOUS PLUGS IN THE WELL TO A DEPTH OF 13,114 FEET AND WILL TREAT WITH 2000 GALLONS OF ACID SO THAT INJECTION WILL BE INTO EXISTING PERFORATIONS 12,665 FEET TO 13,078 FEET IN THE DEVONIAN FORMATION. INITIAL INJECTION RATES WILL BE 1200 BARRELS PER DAY AND MAXIMUM VOLUMES ARE EXPECTED TO BE AROUND 2000 BARRELS PER DAY. INITIAL INJECTION PRESSURES WILL BE ABOUT 750 PSI AND MAXIMUM INJECTION PRESSURE REQUESTED IS 2500 PSI. THE SYSTEM WILL BE CLOSED AND INITIALLY ONLY DEVONIAN WATERS PRODUCED FROM THE MATTIE PRICE LEASE WILL BE INJECTED IN THE WELL. IF WATERS FROM OTHER FORMATIOS ARE INJECTED IN THE WELL, OSBOUN WILL ADVISE THE HOBBS DISTRICT OFFICE AND WILL ENSURE COMPATIBILITY WITH DEVONIAN WATERS BEFORE ANY OUTSIDE INJECTION TAKES PLACE.

THE SUBJECT WELL WAS DRILLED IN 1971 AND PRODUCED OIL FROM THE DEVONIAN. THE DEVONIAN IS OVER 500 FEET THICK IN THIS AREA AND IS PRIMARILY DOLOMITE WITH VUGULAR POROSITY. THE DEVONIAN OIL RESERVOIR APPEARS TO BE A BOTTOM WATER DRIVE RESERVOIR WHICH HAS WATERED OUT THE MATTIE PRICE NO. 3. INJECTION BELOW THE WATER-OIL CONTACT SHOULD SERVE TO MAINTAIN RESERVOIR PRESSURE AND IMPROVE THE SWEEP EFFICIENCY FOR THE REMIANING WELLS IN THIS POOL. THE ENTIRE PRODUCTIVE LIMITS OF THE POOL ARE WITHIN THE MATTIE PRICE LEASE.

INJECTION WILL BE THROUGH 2-7/8" PVC LINED TUBING SET IN A BAKER LOK-SET PACKER TO BE SET AT APPROXIMATELY 12,600 FEET. THE TUBING-CASING ANNULUS WILL BE FILLED WITH AN INERT PACKER FLUID AND PRESSURE TESTED PRIOR TO INJECTION.

THERE IS ONE FRESH WATER WELL WITHIN A MILE OF THE WELL AND IS ON THE MATTIE PRICE LEASE. AN ANALYSIS OF WATER FROM THAT WELL IS ATTACHED. FRESH WATER IS PRODUCED FROM THE OGALALLA FORMATION THE BOTTOM OF WHICH IS AT AROUND 300 FEET IN THIS AREA. THE AVAILABLE GEOLOGIC AND ENGINEERING DATA HAS BEEN EXAMINED AND THERE IS NO EVIDENCE OF OPEN FAULTS OR ANY OTHER HYDROLOGIC CONNECTION BETWEEN THE DISPOSAL ZONE AND ANY UNDERGROUND SOURCE OF DRINKING WATER.

THE MAIN PRODUCING FORMATION IN THE AREA, STARTING ABOUT ONE AND ONE-HALF MILES WEST OF THE MATTIE PRICE LEASE, IS THE STRAWN AT A DEPTH OF AROUND 11,600 FEET. WITHIN SIX MILES OF THIS LEASE THERE IS PRODUCTION FROM THE SAN ANDRES, PADDOCK, ABO, WOLFCAMP AND YESO.

LEASEHOLD OPERATORS WITHIN ONE-HALF MILE OF THE INJECTION WELL AND THE SURFACE OWNER HAVE BEEN SENT A COPY OF THIS APPLICATION BY CERTIFIED MAIL.

INJECTION WELL DATA SHEET

OPERATOR Osborn Heirs Co. LEASE Mattie Price

WELL NO. 3 2300 FSL 990 FEL 6 17S 38E

FOOTAGE LOCATION SECTION TOWNSHIP RANGE

Schematic

Well Construction Data

Surface Casing

Size 13-3/8" " Cemented with 400 sx.

TOC Surface feet determined by Circulated

Hole Size 17½"

Intermediate Casing

Size 8-5/8" " Cemented with 500 sx.

TOC 3500' feet determined by Estimated

Hole Size 11"

Long String

Size 5½" " Cemented with 350 sx.

TOC 11100' feet determined by Temp. Survey

Hole Size 7-7/8"

Total Depth 13146'

Injection Interval

12665' feet to 13103' feet

(perforated or open-hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size 2 - 7/8" lined with P VC set in a
(type of internal coating)
Baker Lok-Set packer at 12600' feet

Other type of tubing / casing seal if applicable _____

Other Data

1. Is this a new well drilled for injection? ____ Yes __X__ No

   If no, for what purpose was the well originally drilled? Oil & Gas Test

2. Name of the injection formation Devonian

3. Name of Field or Pool (if applicable) West Garrett Devonian

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

5. Give the names and depths of any over or underlying oil of gas zones (pools) in this area.

   San Andres - 4000'

   Strawn - 11600'

OSBORN HEIRS COMPANY
WELLBORE DIAGRAM

PRESENT CONDITION

MATTIE PRICE #3
API No. 30-025-23548
990' FEL & 2,300' FSL
Sec 06-T17S-R38E Unit I
West Garrett Field
Lea County, New Mexico

Elevation: 3725'GL 3744' KB

12-3/4",33.38#,H-40,STC csg
400 sx CL "C" + 2% $CaCl_2$
inside 17-1/2" hole *CIRCULATED*

388' Btm of 12-3/4" csg

3500' TOP CEMENT

8-5/8",32#,K-55,STC csg @ 114'
8-5/8",24#,J-55,STC csg @ 2280'
8-5/8",32#,H-40,STC csg @ 2678'
8-5/8",32#,J-55,STC csg @ 5153'
350 sx 50/50 Poz + 7.5 #/sk salt
150 sx CL "C" + 4% gel, 2% $CaCl_2$
inside 11" hole

5153' Btm of 8-5/8" csg

PUMPING ASSEMBLY

61 1" x 25' sucker rods
47 7/8" x 25' sucker rods
2 7/8" x 6' pony rods
1 7/8" x 8' pony rod
2-1/2" x 2" x 22' rod pump w/ 10' gas anchor

TUBING RECORD

92 jts 2-7/8",6.50#,N-80 tbg
2-7/8" Perforated Sub
1 jt 2-7/8",6.50#,N-80 tbg w/ bull plug

11100' TOP CEMENT

Sqz aborted due to high pressure
Packer Guide (11/24/71) &
Packer Slip (06/18/74)

Schlumberger Thru-Tbg Plug w/5' vent tube

Sqz aborted due to high pressure

SQZD: 55 sx CL "C" (11/11/70)
SQZD: 35 sx CL "C" (11/04/70)

5-1/2",17#,P-110,LTC csg @ 2960'
5-1/2",17#,N-80,LTC csg @ 7590'
5-1/2",17#,P-110,LTC csg @ 13146'
350 sx 50/50 Poz "A" w/2% gel + 9 #/sk salt, 0.75% CFR-2
inside 7-7/8" hole

12665' SQUEEZE PERFS (03-20-71)
12689' PERFS
12764' (03/21/71)
12776' Top of cmt on plug
12786' Schlumberger Plug
12792' PERFS
12804' (03/21/71)
12820' SQUEEZE PERFS (03-18-71)
12830' CIBP (03-18-71)
12842-12877' PERFS (10/29/70)
12895' Top of cmt on pkr
12905' EZ-SV SQZ PKR (11/11/70)
12930' SQUEEZE PERFS (11/10/70)
12933' PERFS, 1 spf
12959' (10/14/70)
12967' Top of cmt on pkr
12970' EZ-SV SQZ PKR (10/22/70)
12981' PERFS, 1 spf
13005' (10/14/70)
13052' Top Hydromite on plug
13060' CIBP (10/14/70)
13078-13103' PERFS (10/10/70)
13114' Original PBTD
13146' Btm of 5-1/2" csg

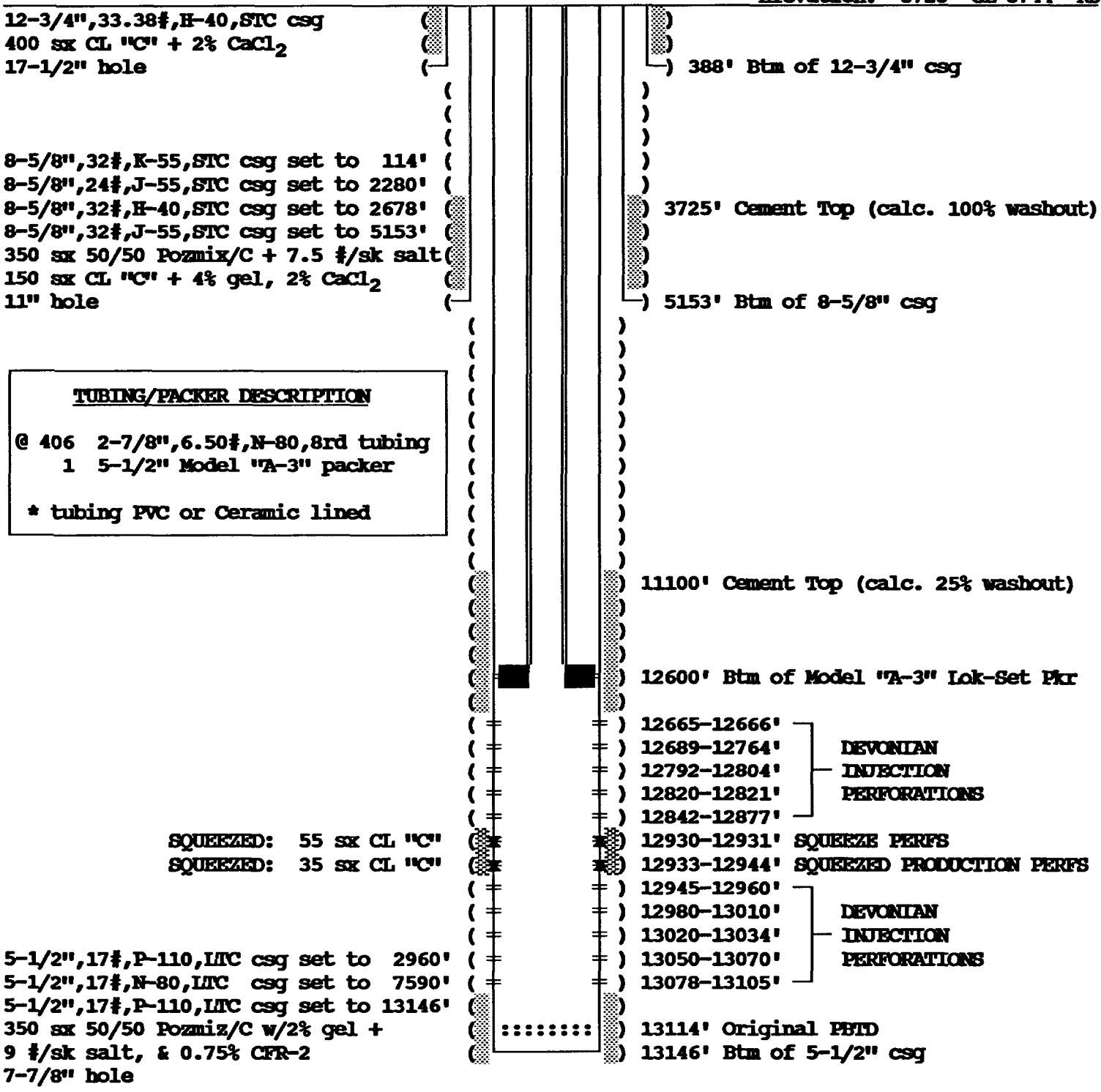
T.D. 13,148'

OSBORN HEIRS COMPANY

"P R O P O S E D C O M P L E T I O N D I A G R A M"

MATTIE PRICE #3
API No. 30-025-23548
990' FEL & 2,300' FSL
Sec 06-T17S-R38E Unit I
West Garrett Field
Lea County, New Mexico

Elevation: 3725' GL 3744' KB



PLUGGED

AND

ABANDONED

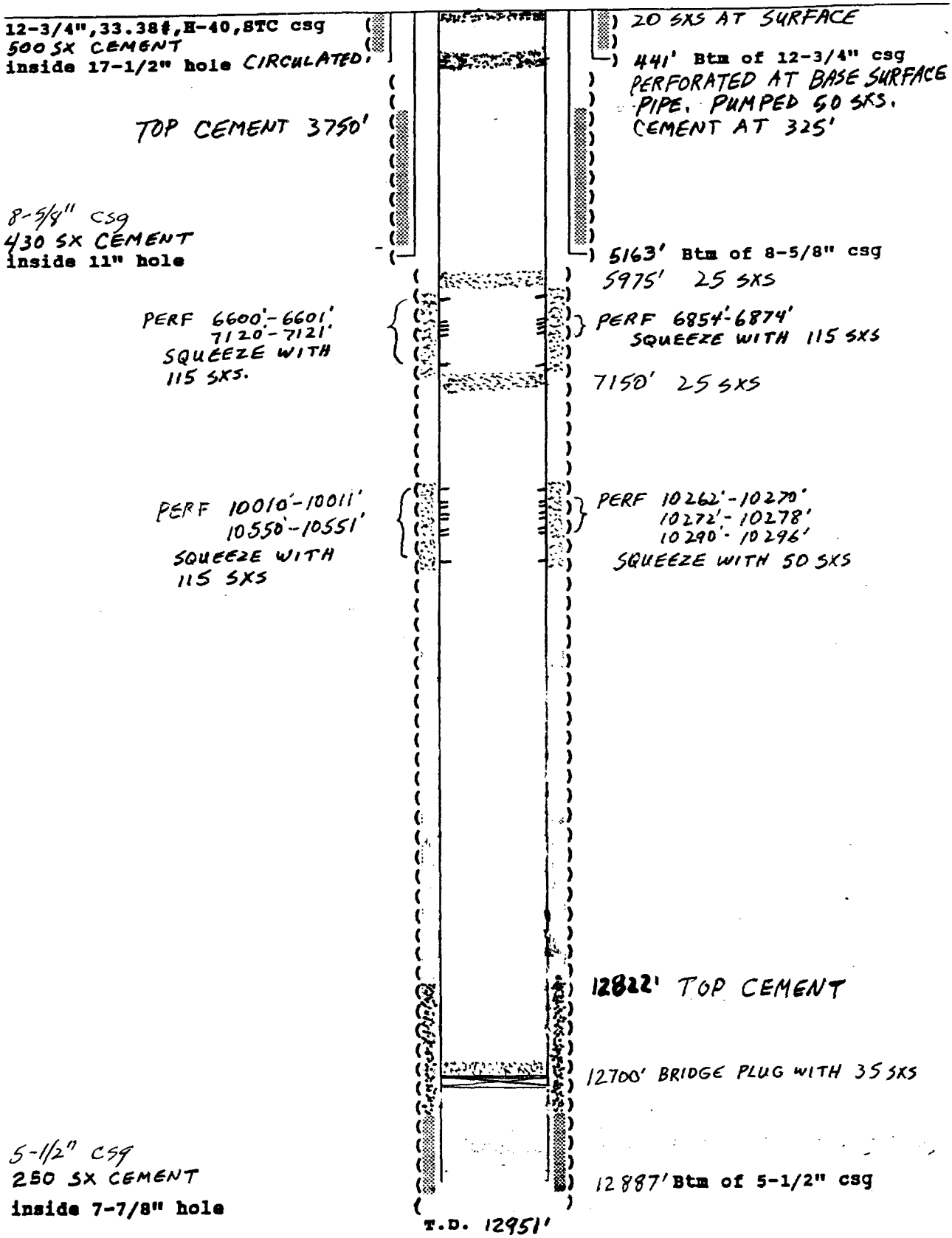
WELLS

OSBORN HEIRS COMPANY
WELLBORE DIAGRAM

PLUGGED AND ABANDONED

MATTIE PRICE #6
1820' FNL & 2310' FEL
SEC. 6-T17S-R38E
UNIT G

Elevation: 3725'GL 3744' KB



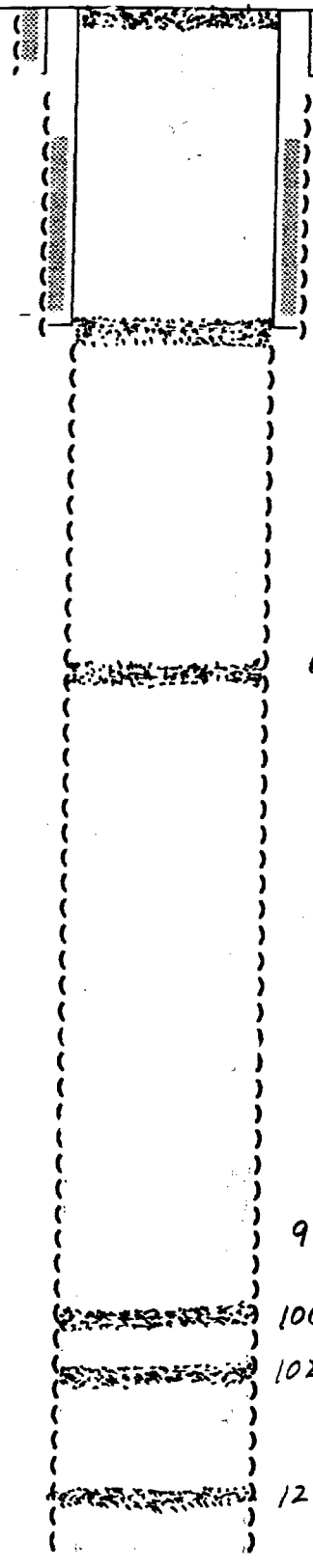
PLUGGED AND ABANDONED

BUFFALO RESOURCES CORP.
PRICE #1
2310' FNL & 660' FWL
SEC 5-T17S-R38E
UNIT E DRILLED IN 1972

Elevation: 3725'GL 3744' KB

12-3/4",33.38#,H-40,STC csg
375 SX CIRCULATED
inside 17-1/2" hole

8-5/8" CSG. CEMENTED
WITH 625 SXS
inside 11" hole



SURFACE 100' CEMENT PLUG
361' Btm of 12-3/4" csg
2900' TOP CEMENT (CALC.)
5153' Btm of 8-5/8" csg
5200' 100' CEMENT PLUG
6502' 100' CEMENT PLUG
9470' 100' CEMENT PLUG
10000' 100' CEMENT PLUG
10286' 100' CEMENT PLUG
12950' 100' CEMENT PLUG

7-7/8" hole

T.D. 13000'

OTHER WELLS

IN AREA

OF REVIEW

OSBORN HEIRS COMPANY

MATTIE PRICE #1
660 FNL & 660 FEL
SEC 6-T17S-R38E UNIT A

DRILLED TO TD OF 12,696 FEET IN 1971
COMPLETED AS AS OIL WELL PRODUCING FROM OPEN HOLE 12,683 FEET TO 12,696 FEET

HOLE SIZE	CASING	DEPTH	CEMENT	TOP CEMENT
17 1/2"	12 3/4"	420'	400	CIRCULATED
11"	8 5/8"	5185'	500	4000' [EST]
7 7/8"	5 1/2"	12683'	750	7800' [EST]

OSBORN HEIRS COMPANY

MATTIE PRICE #2
1650 FNL & 990 FEL
SEC 6-T17S-R38E UNIT H

DRILLED TO TD OF 12,684 IN 1971.
COMPLETED AS AN OIL WELL PRODUCING FROM OPEN HOLE 12,560 - 12,684

HOLE SIZE	CASING	DEPTH	CEMENT	TOP CEMENT
17 1/2"	12 3/4"	404'	375	CIRCULATED
11"	8 5/8"	5150'	500	3500' EST.
7 7/8"	5 1/2"	12558'	750	8100' TEMP. SUR.

OSBORN HEIRS COMPANY

MATTIE PRICE #4
980 FSL & 1650 FEL
SEC 6-T17S-R38E UNIT O

DRILLED TO TD OF 12,906 FEET IN 1972.
COMPLETED AS AN OIL WELL PRODUCING FROM OPEN HOLE 12,847 - 12,906.
LATER DEEPENED TO 13,095 FEET.

HOLE SIZE	CASING	DEPTH	CEMENT	TOP CEMENT
17 1/2"	13 3/8"	407'	400	CIRCULATED
11"	8 5/8"	5210'	575	5140 TEMP. SUR.
7 7/8"	5 1/2"	12847'	525	12381 TEMP. SUR.

HALLIBURTON SERVICES

HOBBS, NEW MEXICO

P.O. Box 2568

To Joe Ramey

1629 Katron S.E.

Albuquerque, New Mexico 87123

Sample Number 230

Submitted by Osborne Heirs Date Received June 29, 1993

Well No. Mattie Price Lease Depth 100 Formation Water Table

County Lea Field Source Fresh water windmill

Resistivity.....	16.234 @ 76 F		
Specific Gr.....	1.000		
pH.....	7.4		
Calcium*..... Ca	400		
Magnesium*..... Mg	nil		
Chlorides*..... Cl	70		
Sulfates*..... SO_4	74		
Bicarbonates*.... HCO_3	159		
Soluble Iron*.... Fe	nil		

Remarks: Sample from only Fresh water windmill on Mattie Price Lease

***Milligrams per liter**

Respectfully submitted,

Analyst:

HALLIBURTON COMPANY

By

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

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 _____

one weeks.

Beginning with the issue dated

July 11 , 1993

and ending with the issue dated

July 11 ,1993

Kathi Bearden

General Manager

Sworn and subscribed to before

me this 13 day of

July , 1993

Marlene Perrin

Notary Public.

My Commission expires
March 15, 1997
(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
July 11, 1993

Osborn Heirs Company (Box 17968, San Antonio, TX 78286) will dispose of 2000 barrels of produced water per day, at a maximum injection pressure of 2500 PSI, into the Mattie Price No. 3 located 2300 feet from the South line and 990 feet from the East line of Section 6, Township 17 South, Range 38 East Lea County, New Mexico. Injection will be into the Devonian Formation at a depth 12665 to 13078 feet.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

Contact Party:
Joe D. Ramey
1629 Catron SE
Albuquerque, NM 87123
(505) 271-1150

COPIES OF THE APPLICATION WERE SENT BY CERTIFIED MAIL TO THE FOLLOWING:

DAVID PETROLEUM CORPORATION
116 WEST FIRST STREET
ROSWELL, NM 88201

VERNON E. FAULCONER
1100 PEOPLES BANK BUILDING
TYLER, TX 75702

DAN C. BERRY
BOX 67
EUNICE, NM 88231

A COPY OF THE APPLICATION WAS SENT TO:

OIL CONSERVATION DIVISION
PO BOX 1980
HOBBS, NM 88240

SCHLUMBERGER

SIDEWALL NEUTRON POROSITY LOG

COUNTY _____
FIELD or LOCATION SO #16490
WELL _____
COMPANY _____

COMPANY Freeport Oil
WELL Nathie Price #3
FIELD West Garrett Devonian
COUNTY Lea STATE N.M.
Location: 2300' FSL & 990' FEL
Sec. 6 Twp. 17-S Rge. 38-E
Other Services: LL-9

Permanent Datum: GL Elev. 3725
Log Measured From KB 19 Ft. Above Perm. Datum
Drilling Measured From KB
Elev.: K.B. 3744 D.F. 3743 G.L. 3725

Date	9-26-70
Run No.	Two
Type Log	Epithermal
Depth—Driller	13,133
Depth—Logger	13,132
Bottom logged interval	13,130
Top logged interval	13,500
Type fluid in hole	Low Solids
Salinity, PPM Cl.	7600
Density	8.9
Level	Full
Max rec. temp., deg F.	178
Operating rig time	
Recorded by	Walls
Witnessed by	Mr. Jemison

RUN No.	BORE-HOLE RECORD Bit	From	To	CASING RECORD Size	Wgt.	From	To
Two	7⅞	639	TD	8⅝	32	Surf	

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

EQUIPMENT DATA

Run No.	PGP-D	PNH-A	PGH-A	PGS-	Source No.	SFT-116	-SGH-	Logging Unit	Location
#2	225		154	E-40	NCS-5	24	EGH-A-27	3720	Hobbs
#2				-	19				
#3				-					

CALIBRATION DATA

Run No.	Gamma Ray API Scale	Gamma Ray Background CPS	Gamma Ray Total CPS	Neutron — Before Log — ACPS Drawer In	Neutron — Before Log — ACPS Drawer Out	Neutron — After Log — ACPS Drawer In	Neutron — After Log — ACPS Drawer Out
1							
2	0-100	104	596	490	—	490	
3							

LOGGING DATA

Run No.	General Depths From	General Depths To	Speed Ft./Min.	TC	Gamma Ray API Scale	Neutron Selectors Matrix	Mud Corr. Setting as PPM-NaCl x10⁴	Temperature °F	Porosity Scale
2	TD	12,500	30	2	0-100	Lim/Lig	.04	175	30 10 -10

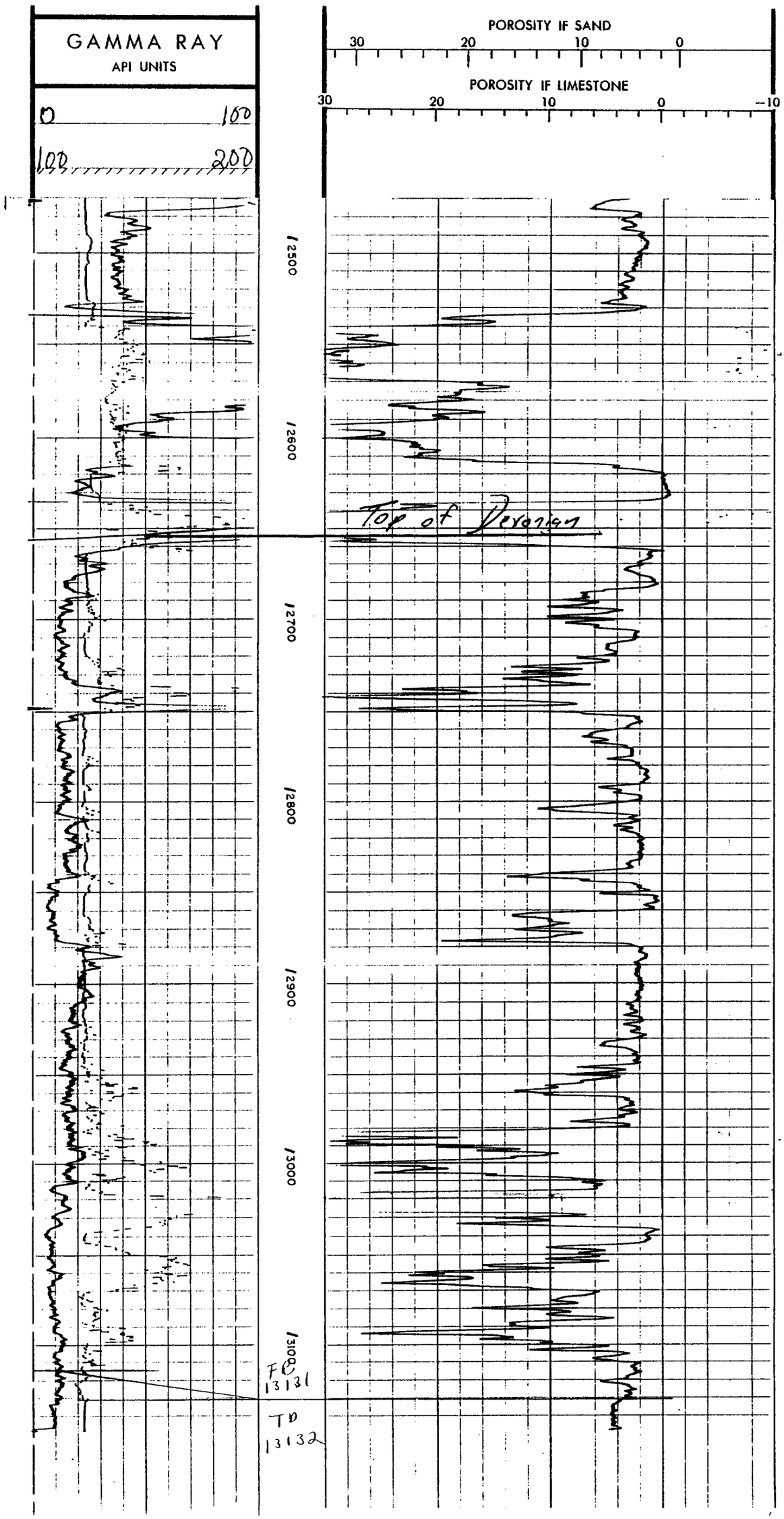
MUD DATA

Run No.	Rm. @ °F	% Solids by Vol.	% Oil by Vol.	% Water by Vol.	Viscosity, Sec/Qt @ °F	Solids, Av. Sp. Gr.
1	@ °F				@ °F	
2	@ °F				@ °F	
3	@ °F				@ °F	

Remarks:

LOG FORMAT: MUD FILLED HOLES, LIME MATRIX

CALIPER HOLE DIAM. IN INCHES	DEPTHS	POROSITY (%)
6 — 16		POROSITY IF DOLOMITE 20 10 0
GAMMA RAY API UNITS		POROSITY IF SAND 30 20 10 0
0 — 100		POROSITY IF LIMESTONE 30 20 10 0 -10
100 — 200		


GAMMA RAY
API UNITS
0
100
100
200
POROSITY IF SAND
30
20
10
0
POROSITY IF LIMESTONE
30
20
10
0
-10
2500
2600
Top of Devonian
2700
2800
2900
3000
3100
FD
13131
TD
13132

SF

OIL CONSERVATION DIVISION
RECEIVED
93 AUG 16 AM 10 19

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

August 4, 1993

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

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

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

Gentlemen:

I have examined the application for the:

Osborn Heirs Co.	Mattie Price	#3-1	6-17S-38E
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed