

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Hanson Operating Company

3. ADDRESS AND TELEPHONE NO.

P.O. Box 1515
Roswell, NM 88202-1515 (505) 622-7330

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

At surface

1990 FSL 2004 FEL Unit J

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

9.5 mi ESE of Milnesand, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST 636

PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any) 636

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED, initial well

OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE

120

19. PROPOSED DEPTH

4950

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

rotary

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

4038 ground level

22. APPROX. DATE WORK WILL START*

June 1, 1993

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 H-40	48.00	500'	Circ. to Surface Class C
12 1/4	8-5/8 J-55	32.00 & 24.00	4200' 4950'	Circ. to Surface Class C (2000 sx)

Attachments:

1. Survey Plat - NMOC Form C-102
2. Drilling Plan
 - Exhibit A Summarized Drilling Procedure
 - Exhibit B BOP Diagram
3. Surface Use Plan
 - Exhibit C Highway Quad
 - Exhibit D Topo Quad
 - Exhibit E Lease Map
 - Exhibit F Wellsite Diagram

PLEASE BE ADVISED THAT THERE WILL BE NO EXCAVATION OF FEDERALLY OWNED MINERAL MATERIAL FOR CONSTRUCTION OF THE ACCESS ROAD OR PAD WITHOUT PAYMENT IN ADVANCE.

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 agent for applicant

DATE April 19, 1993

(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

[Signature]

TITLE

Asst. Area Mgr.

DATE

5/29/93

*See Instructions On Reverse Side



4 copies
3 copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Box 1980, Hobbs, NM 88240

Drawer DD, Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

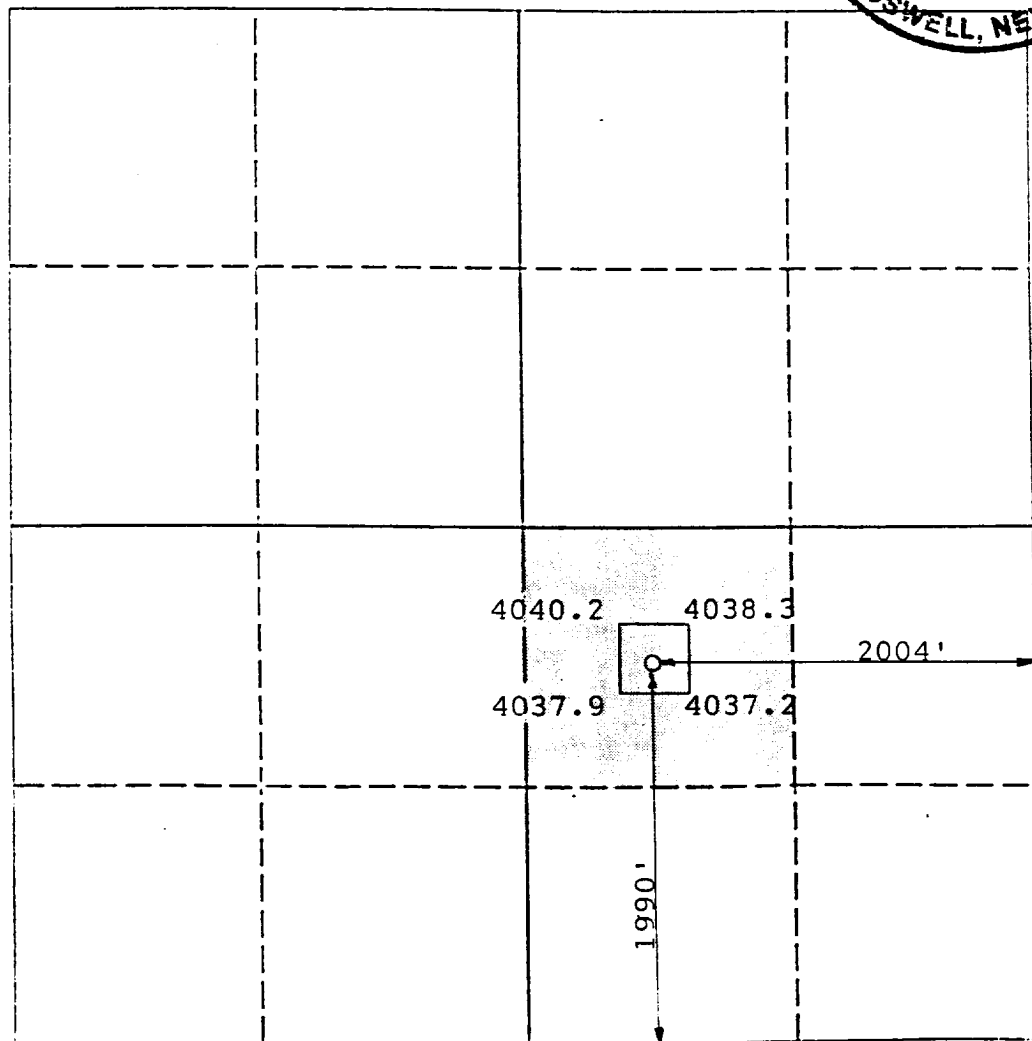
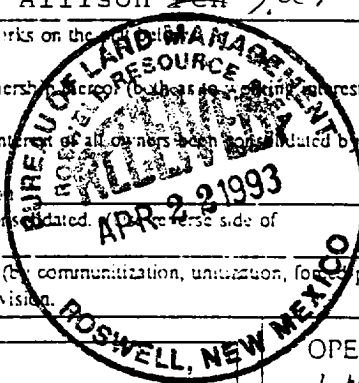
WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Hanson Operating Company			Lease Tuxedo Federal		Well No. 1
Unit Letter J	Section 17	Township 8 South	Range 37 East	County Roosevelt	

Actual Footage Location of Well: 1990 feet from the South line and 2004 feet from the East line					
Ground level Elev. 4038	Producing Formation San Andres	Pool North Allison Pen J.C.	Dedicated Acreage: 40 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat.
- If more than one lease is dedicated to the well, outline each and identify the ownership (both as to ownership and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc?
☐ Yes ☐ No If answer is "yes" type of consolidation: _____
 If answer is "no" list the owners and tract descriptions which have actually been consolidated. _____
 No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

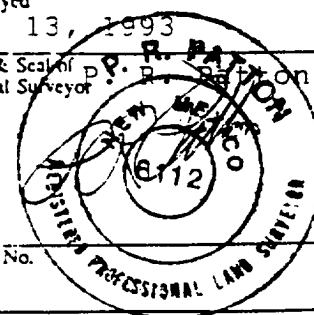
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature <i>P.R. Patton</i>
Printed Name P.R. Patton
Position agent for
Company Hanson Operating Co.
Date April 21, 1993

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

Date Surveyed April 13, 1993
Signature & Seal of Professional Surveyor <i>P.R. Patton</i>
Certificate No. 8112





DRILLING PLAN
To Accompany
APPLICATION FOR PERMIT TO DRILL

HANSON OPERATING COMPANY
TUXEDO FEDERAL WELL #1
1990 FSL, 2004 FEL, SEC.17, T8S, R37E NMPM
Roosevelt County, NM

In conjunction with Form 3160-3, Application for Permit to Drill, Hanson Operating Corporation submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. Estimated Tops of Geologic Markers

The surface geologic formation is Quaternary Alluvium and Bolson deposits, overlying undifferentiated sands and gravels of the Ogallala Formation; the estimated tops of geologic markers are as follows:

FORMATION	DEPTH	SUBSEA
Land Surface	0	4038
Base of Ogallala	250	3788
Anhydrite	2240	1798
Top of Salt	2345	1693
Yates	2860	2415
San Andres	4090	-52

2. The estimated depths at which water, oil, or gas formations are expected to be encountered:

A. Fresh Water

May be found at the base of the Quaternary Alluvium, at a depth of about 100 feet and continuing through the Ogallala; it will be protected with 13-3/8" casing set at 500 feet (in the Triassic Redbeds) and cemented to surface, as per NMOCC regulations.

B. Oil or Gas:

Formation	Hydrocarbon	Depth
San Andres	Oil	-4200 1733

8 2/3 Potentially productive horizons to be protected by
8 2/3 " production casing with cement extending to
surface.

3. Pressure Control Equipment

See Exhibit "B" for Description and test pressures; Refer to Exhibit "A" for testing schedule.

4. Proposed Casing and Cementing Program:

See Form 3160-3 and Exhibit "A", "Summarized Drilling Procedure".

5. Mud Program:

Interval:

0-500'	Utilise a freshwater - gel/lime mud system with mechanical lost circulation additives (flocele, etc.) as required.
500-TD	Utilise a saturated brine gel mud system, with viscosity/waterloss control as needed, and 2-3% oil for swelling clay control as needed.

6. Testing, Logging, and Coring Programs:

DSTs:

Proposed: none

Mud Logging

From base of first casing (500 ft.) to TD

Electric / Radioactive Logging

Open Hole Logs:

GR-Caliper-CNL-FDC -- From TD to 500 ft

Cased Hole Logs

GR -- From top of open hole logged interval to surface

Temperature -- as needed to establish TOC

Coring:

No Coring is planned at this time. However, rotary sidewall cores may be taken before production casing is run.



7. Abnormal Pressures, Temperatures, or other Hazards:

Lost Circulation Zones:

Zones of lost circulation are not anticipated

High Pressure Zones:

Above normal pressures are not anticipated.
Projected Pressure Gradients are:

Interval	Gradient	Est. Max. BHP
Surface to 5000'	0.433 psi/ft	2170 psi

Hydrogen Sulphide Gas:

Hydrogen sulphide is not believed to be a problem in the San Andres in this area; however, appropriate precautions will be taken.

8. Anticipated Starting Date:

As soon as possible.

