

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. LC-068712
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRUST NAME MAR 15 10 51 AM '90
2. NAME OF OPERATOR Hanson Operating Co., Inc.			7. UNIT AGREEMENT NAME AREA
3. ADDRESS OF OPERATOR P. O. Box 1515 Roswell, NM 88202			8. FARM OR LEASE NAME H & K Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 990' FSL & 990' FWL At proposed prod. zone same			9. WELL NO. 2
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 18 miles East of Artesia, NM			10. FIELD AND POOL, OR WILDCAT Redlake Queen G-SA
16. NO. OF ACRES IN LEASE 440	17. NO. OF ACRES ASSIGNED TO THIS WELL 40	11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA Sec. 11-T17S-R28E	12. COUNTY OR PARISH Eddy
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3500'	19. PROPOSED DEPTH 2250'	13. STATE New Mexico	20. ROTARY OR CABLE TOOLS Rotary (air)
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3647' GL			22. APPROX. DATE WORK WILL START* March 28, 1990

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24.0#	500'	350 sx "C" & Prem. Circulated
7 7/8"	5 1/2"	15.5#	2250'	400 sx HL & Prem. "

MUD PROGRAM: None planned since well to be drilled with air. Will mud mud up if unexpected abnormal pressures are encountered or excessive water is encountered.

BOP PROGRAM: A 3,000 psi wp #900 double hydraulic operated BOP with a 2,000 psi wp choke manifold will be installed and tested daily to be used as a 2,000 psi wp system.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 George Smith TITLE Agent for: Hanson Operating Co., Inc. DATE March 14, 1990
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY George Smith TITLE _____ DATE 3-19-90
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

APPLICATION FOR DRILLING

HANSON OPERATING CO., INC.
H & K Federal, Well No. 2
990' FSL & 990' FWL, Sec. 11-T17S-R28E
Eddy County, New Mexico
Lease No.: LC-068712
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Hanson Operating Co., Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Yates	592'
Queen	1372'
Penrose	1516'
Grayburg	1793'
San Andres	2131'
T.D.	2250'
3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 400' - 450'.

Oil: In the Penrose or Grayburg below 1516'.

Gas: None expected.
4. Proposed Casing Program: See Form 3160-3.
5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".
6. Mud Program: See Form 3160-3.
7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.
8. Testing, Logging, and Coring Program:

Drill Stem Tests: None.

Logging: T.D. to intermediate casing: GR-CNL-LDT, RFT and DLL w/Rxo,

Coring: None planned.
9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight.
10. Anticipated starting date: March 28, 1990.
Anticipated completion of drilling operations: Approximately 30 days.

OIL CONSERVATION DIVISION

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

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

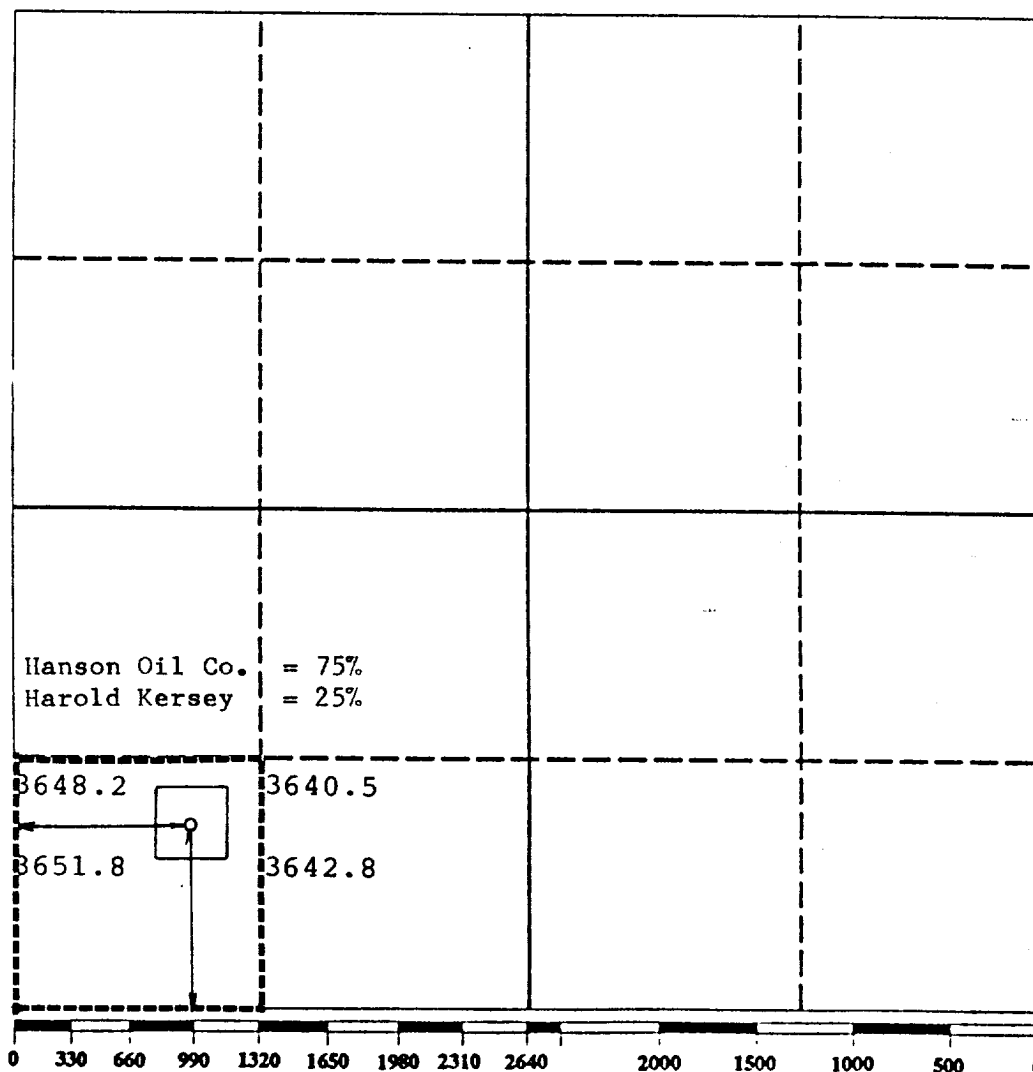
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Hanson Operating Co.			Lease H&K M & K Federal		Well No. x 2
Unit Letter M	Section 11	Township 17 South	Range 28 East	County NMPM Eddy	
Actual Footage Location of Well: 990 feet from the South line and 990 feet from the West line					
Ground level Elev. 3647	Producing Formation Penrose/Grayburg	Pool Redlake Queen/Grayburg/San Andres	Dedicated Acreage: 40 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest 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. (Use reverse side of this form if necessary). _____
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such 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

George R. Smith

Printed Name

George R. Smith

Position

Agent for:

Company

Hanson Operating Co., Inc.

Date

March 14, 1990

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

January 26, 1990

Signature & Seal of Professional Surveyor

Patton

Certificate No.

8112

MULTI POINT SURFACE USE AND OPERATIONS PLAN

HANSON OPERATING CO., INC.
H & K Federal, Well No. 2
990' FSL & 990' FWL, Sec. 11-T17S-R28E
Eddy County, New Mexico
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a USGS Topographic Red Lake Quadrangle map showing the location of the proposed well as staked. The well site location is approximately 18 road miles east of Artesia, New Mexico. There will be approximately 18 miles of paved highway and .8 mile of gravel oilfield roads.
- B. Directions: Travel East from Artesia, NM on US Highway 82 for 15 miles to the paved Eddy County road No. 209 (Turkey Track Rd.), Turn north on Rd. 209 for approximately 3.2 miles to the Navajo Pipeline crossing on the north side of the Turkey Track ranch headquarters. Turn left (west) onto the pipeline road for approximately .8 mile to the southeast corner of the staked pad area on the north side of the pipeline.

2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 3700 feet of upgraded Navajo pipeline access road and 30 feet of new access road 12 feet wide (24' Max.). The proposed and existing roads are color coded on Exhibits "A" and "B".
- B. Construction: The existing access road will be upgraded and the proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained with water bars as needed.
- C. Turnouts: At least three turnouts will be required with a surface road width of 20 feet.
- D. Culverts: One possibly two steel culverts will be used near the location.
- E. Cuts and Fills: None required, except to smooth and level rough terrain.
- F. Gates, Cattleguards: None required.
- G. Off Lease R/W: None required.

3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a two mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. There are production facilities on the lease in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec. 14-T17S-R28E, but will be kept separate at this time because of terrain.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a rotary air drilling rig but if drilling with water is required, fresh water will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for surfacing the existing and proposed access road and well site pad will be obtained from a private surface/mineral pit in the NE $\frac{1}{4}$ of Section 23-T17S-R28E. The topsoil from the location will be stockpiled near the location for future rehabilitation use. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt, or a commercial dumpster will be used. All waste material will be contained to prevent scattering by the wind.

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- H. All trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, waste pits, and major rig components. The pad and pit area has been staked and flagged, 400' X 400'.
- B. Mat Size: 200' X 150' max., plus reserve pits for rotary air drilling rig.
- C. Cut & Fill: The surface will require a 2.5 to 3 foot cut on the south and east will be filled to the west and north.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced and screened until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. OTHER INFORMATION:

- A. Topography: The proposed well site is located on a 3% northwesterly slope of the highly eroded rock lands, which consists of steep to vertical escarpments, of highly fractured sandstone, siltstone, shale and limestone rocks. The location has an elevation of 3647'. The location shows extreme water and wind erosion.
- B. Soil: The topsoil at the well site is a gravelly fine sandy loam overlaying fractured caliche.
- C. Flora and Fauna: The vegetation cover is a very sparse grass cover of sand dropseed, fluff-grass, grama, and three-awn, along with plants of mesquite, yucca, snake broomweed, sumac, cacti, fourwing saltbush, creosote, javelina and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the immediate vicinity.
- E. Residences and Other Structures: The Turkey Track ranch headquarters is located 4000 feet to the southeast.
- F. Land Use: Cattle grazing.

11. OTHER INFORMATION; cont.....

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no evidence of any archaeological, historical or cultural sites in the area. An archaeological survey will be conducted by Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

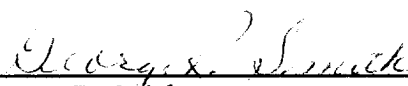
- A. The field representative for assuring compliance with the approved surface use and operations plan is as follows:

David Sweeney
Hanson Operating Co., Inc., Inc.
P. O. Box 1515
Roswell, New Mexico 88202
Office Phone: (505) 622-7330
Home Phone: (505) 622-9132

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Hanson Operating Co., Inc., Inc. and its contractors and subcontractors 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.

March 13, 1990



George R. Smith
Agent for: Hanson Operating Co., Inc.

ARTESIA QUADRANGLE
NEW MEXICO
1:100 000-SCALE SERIES (TOPOGRAPHIC)

R 29 E
600 000 FEET U.S.C.

550 58 R 28 E

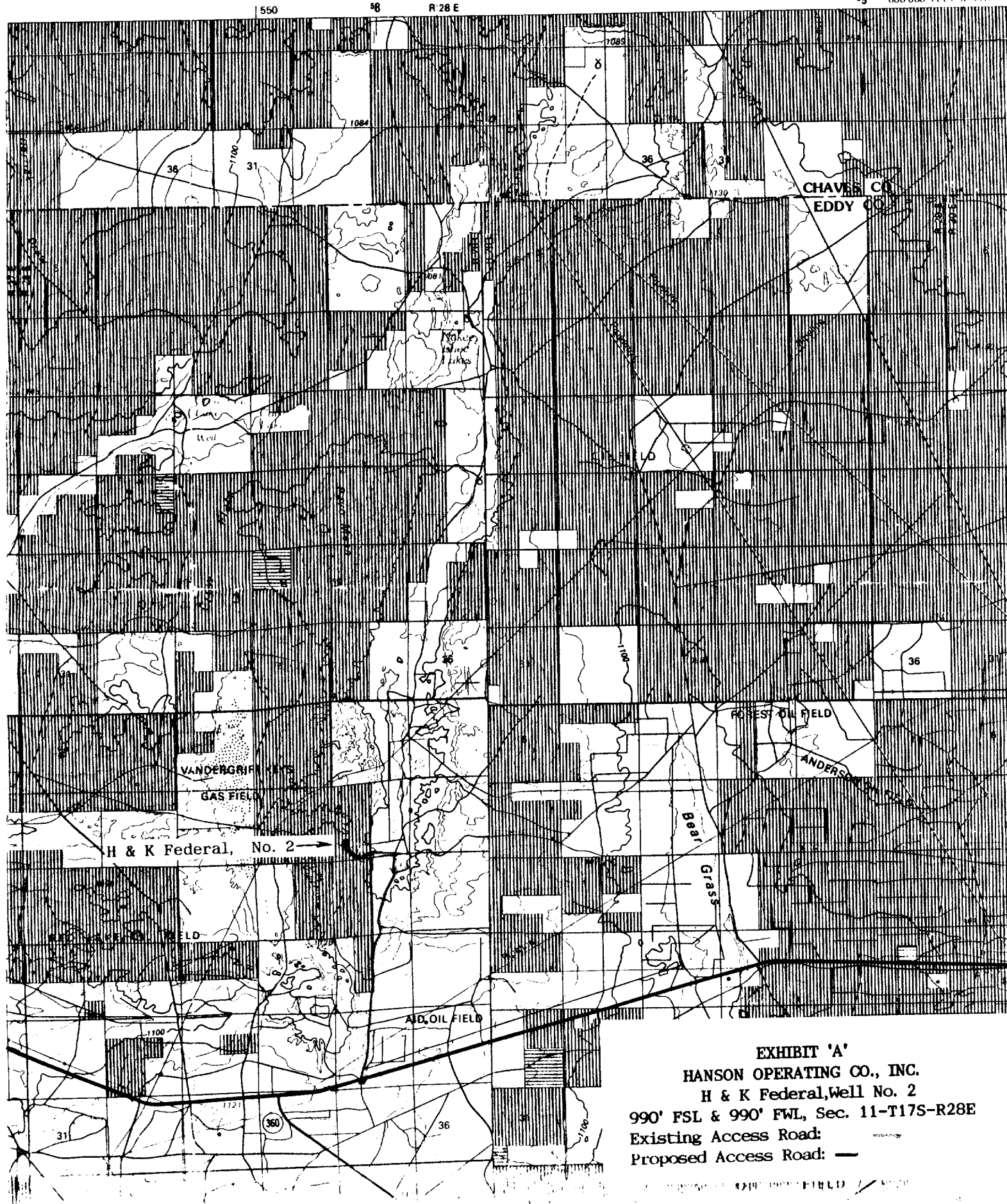


EXHIBIT 'A'
HANSON OPERATING CO., INC.
H & K Federal, Well No. 2
990' FSL & 990' FWL, Sec. 11-T17S-R28E
Existing Access Road:
Proposed Access Road: —

RED LAKE QUADRANGLE

NEW MEXICO-EDDY CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

(BASIN WELL)

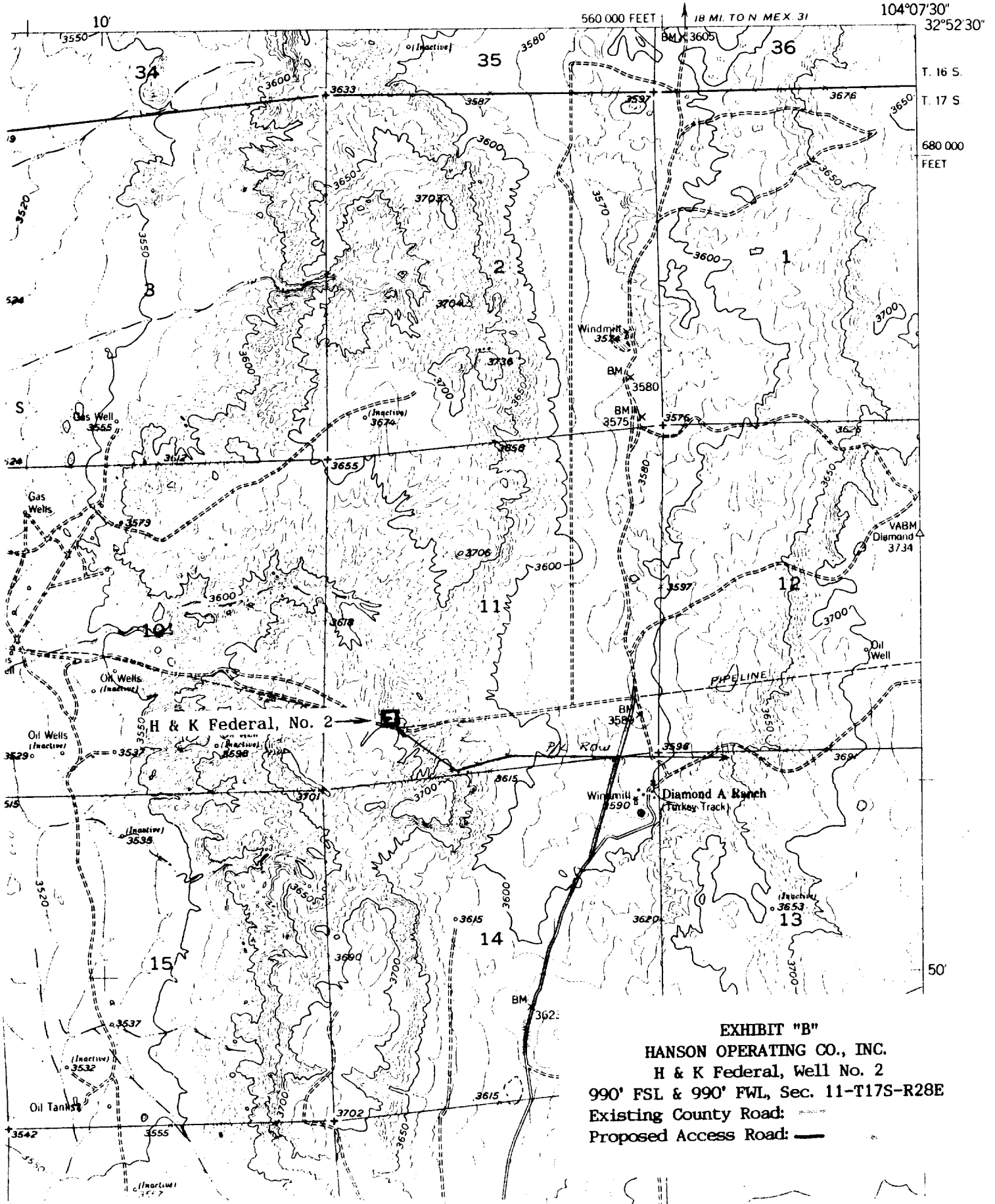


EXHIBIT "B"

HANSON OPERATING CO., INC.

H & K Federal, Well No. 2

990' FSL & 990' FWL, Sec. 11-T17S-R28E

Existing County Road:

Proposed Access Road: —

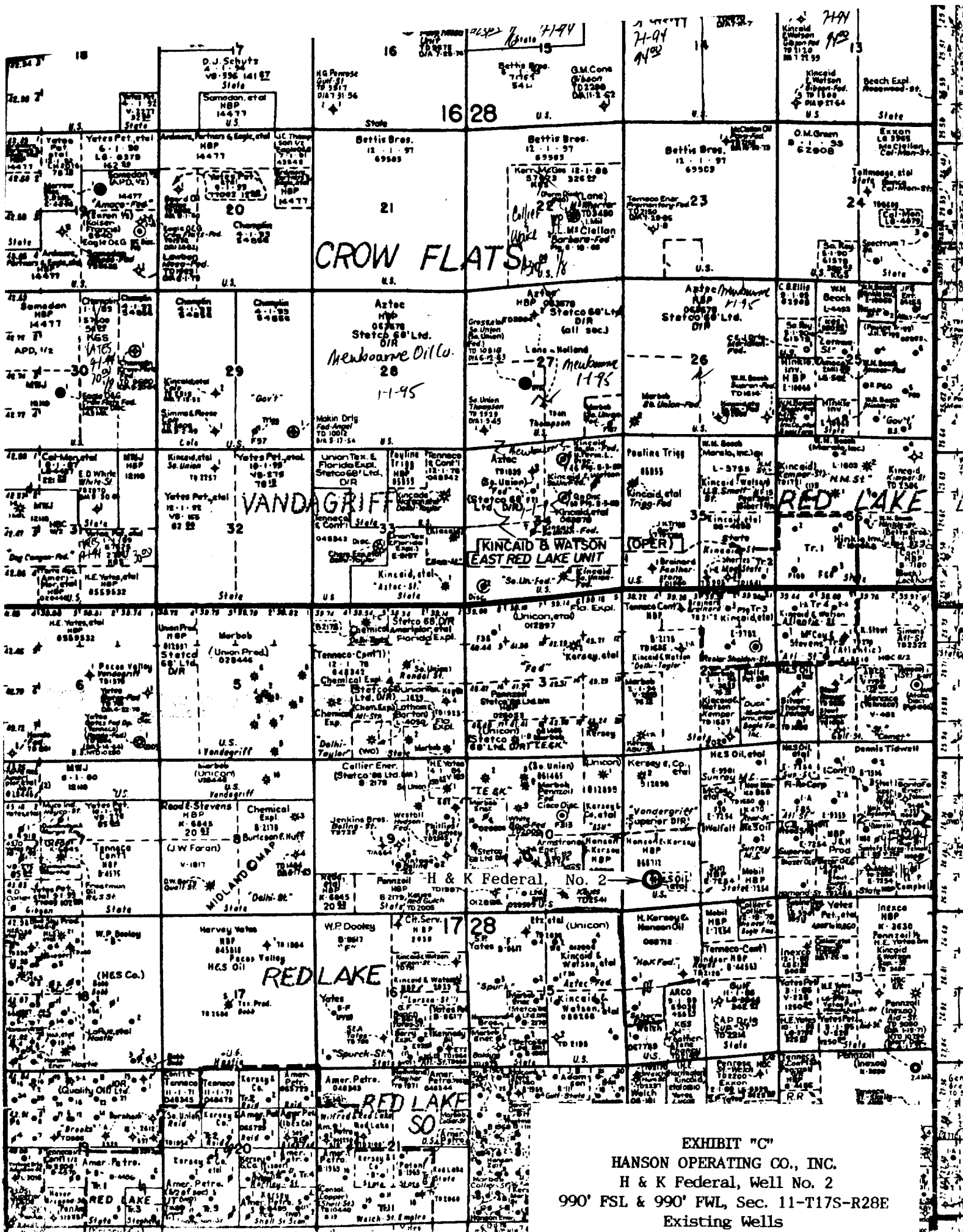
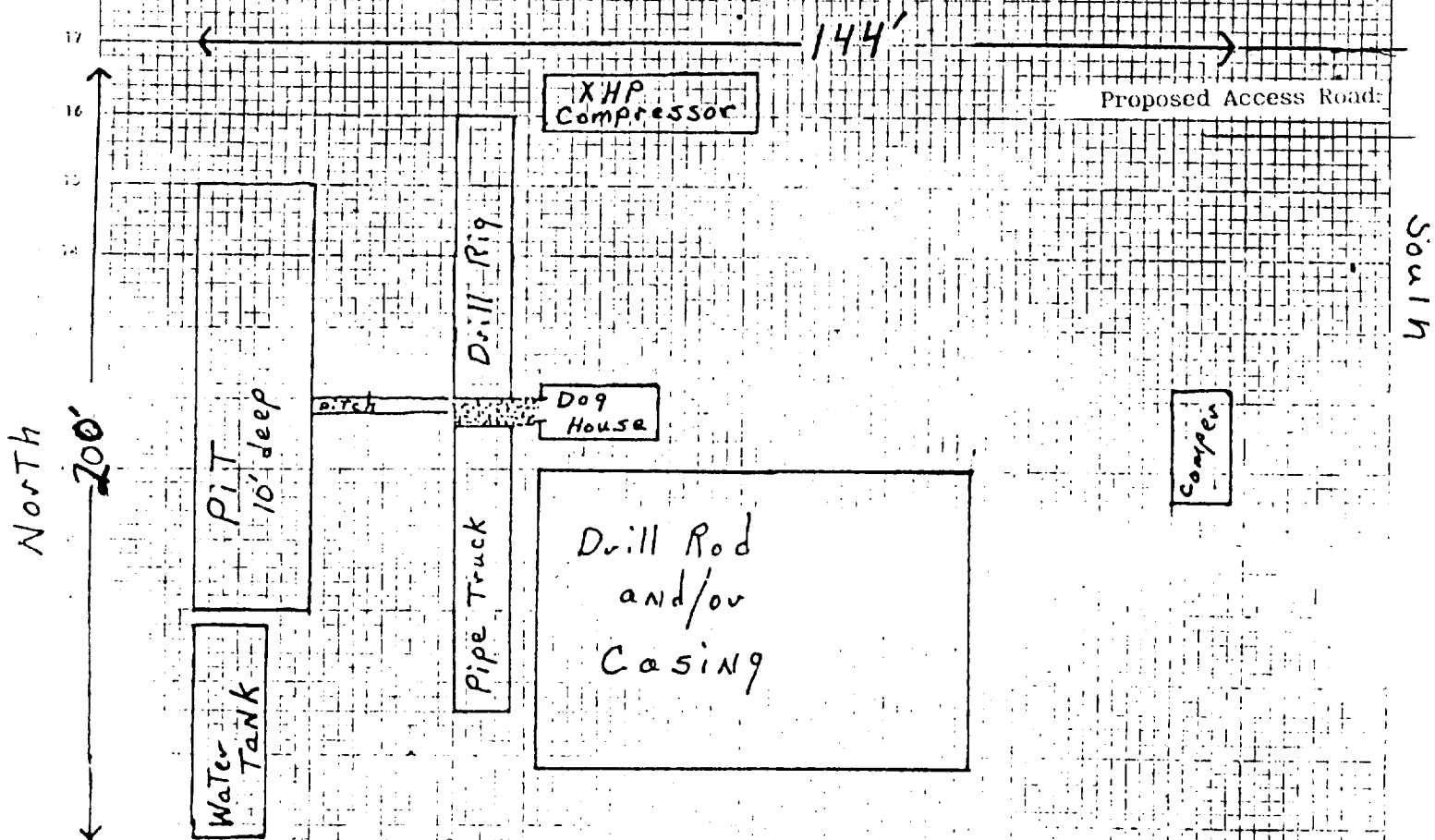


EXHIBIT "C"
HANSON OPERATING CO., INC.
H & K Federal, Well No. 2
990' FSL & 990' FWL, Sec. 11-T17S-R28E
Existing Wells

East

Preferred location size @ 150' x 150' Minimum



SCALE: 1 square = 2'

EXHIBIT "D"
HANSON OPERATING CO., INC.
H & K Federal, Well No. 2
Pad & Pit Layout

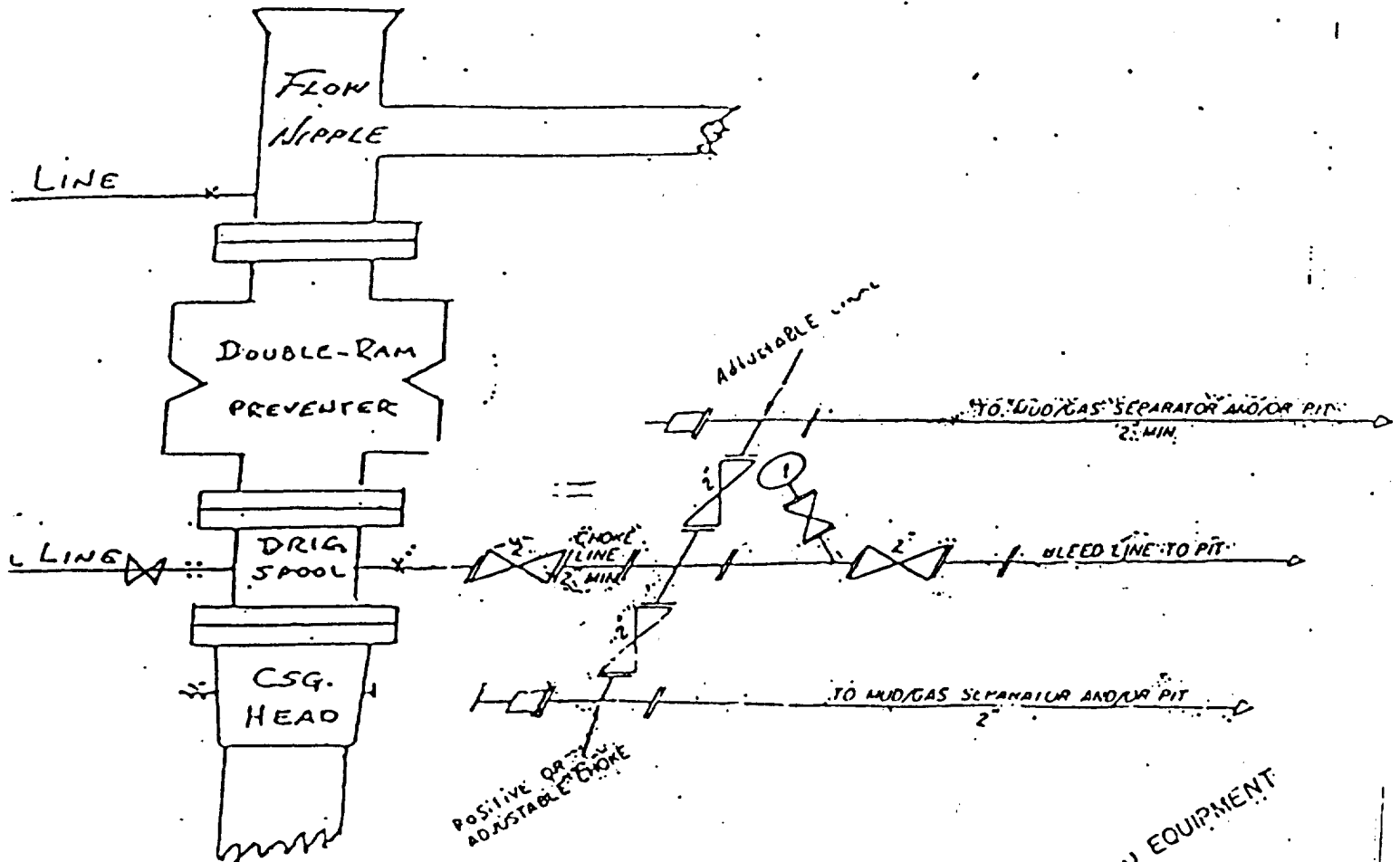
West

B O P & CHOKE MANIFOLD

10"/900 Cameron SS Space Saver

3000# Working Pressure

2000# Working Pressure Choke Manifold



2M CHOKE MANIFOLD EQUIPMENT

EXHIBIT "E"
HANSON OPERATING CO., INC.
H & K Federal, Well No. 2
BOP Specifications