

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LEASE DESIGNATION AND SERIAL NO.
SF-078508

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"/>		INDIAN, ALLOTTEE OR TRIBE NAME N/A
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		UNIT AGREEMENT NAME N/A
2. NAME OF OPERATOR Union Texas Petroleum		NAME OF LEASE NAME NORTHHAUS
3. ADDRESS OF OPERATOR 375 U.S. Highway 64, Farmington, NM 87401		WELL NO. 4A
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1000' FSL & 1520' FEL At proposed prod. zone		FIELD AND POOL, OR WILDCAT Blanco Mesaverde
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 7.5 miles north of Archuleta, New Mexico		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 12, T31N-R9W C
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1000 from lease 1000 from DU	16. NO. OF ACRES IN LEASE 2401.04	17. NO. OF ACRES ASSIGNED TO THIS WELL E/2 314.38 acres
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3298	19. PROPOSED DEPTH 6050	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6471 G.L. (graded)		22. APPROX. DATE WORK WILL START* July 15, 1988

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4	9-5/8"	32.3	350	200 sx (236 cu.ft.) C1 "B"
8-3/4	7"	23.0	3700	355 sx (350 cu.ft.) 65/35 POZ
6-1/4	4-1/2" liner	11.6	3500-6050	415 sx (593 cu.ft.) 50/50 POZ

Union Texas Petroleum wishes to advise we intend to drill a 12-1/4" hole with mud to 350' and set 9-5/8", 32.3#, H-40, ST&C csg to 350', cementing to surface with 200 sx (236 cu.ft.) C1 "B" w/2% CaCl2 and 1/4# flocele/sk. Wait on cement 12 hours.

Nipple up, test BOP. Drill 8-3/4" hole with mud out of surface to 3700'. Set 7", 23#, K-55, ST&C intermediate csg from surface to 2500' and 7", 23#, N-80, LT&C csg from 2500'-3700', cementing to surface with 255 sx (732 cu.ft.) 65/35 POZ with 12% gel and 12-1/4# gilsonite/sk, tailed by 100 sx (118 cu.ft.) C1 "B" with 2% CaCl2. Drill 6-1/4" hole with air/mist out of intermediate to a TD of 6050'. Log well. Run 4-1/2", 11.6#, N-80, LT&C liner from 3500' to 6050'. Cement liner into intermediate csg with 415 sx (593 cu.ft.) 50/50 POZ with 2% gel, 10% gypseal and 10% salt.

Following perforation and treatment of the Mesaverde formation, standard production equipment will be installed. Install cathodic protection. All cable to follow existing roads.

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 Robert C. Frank TITLE Permit Coordinator DATE 6/06/88

(This space for Federal or State office use)

PERMIT NO. APPROVED BY

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

OIL CON. DIV.

*See Instructions On Reverse Side

Form C-102
Revised 10-1-79

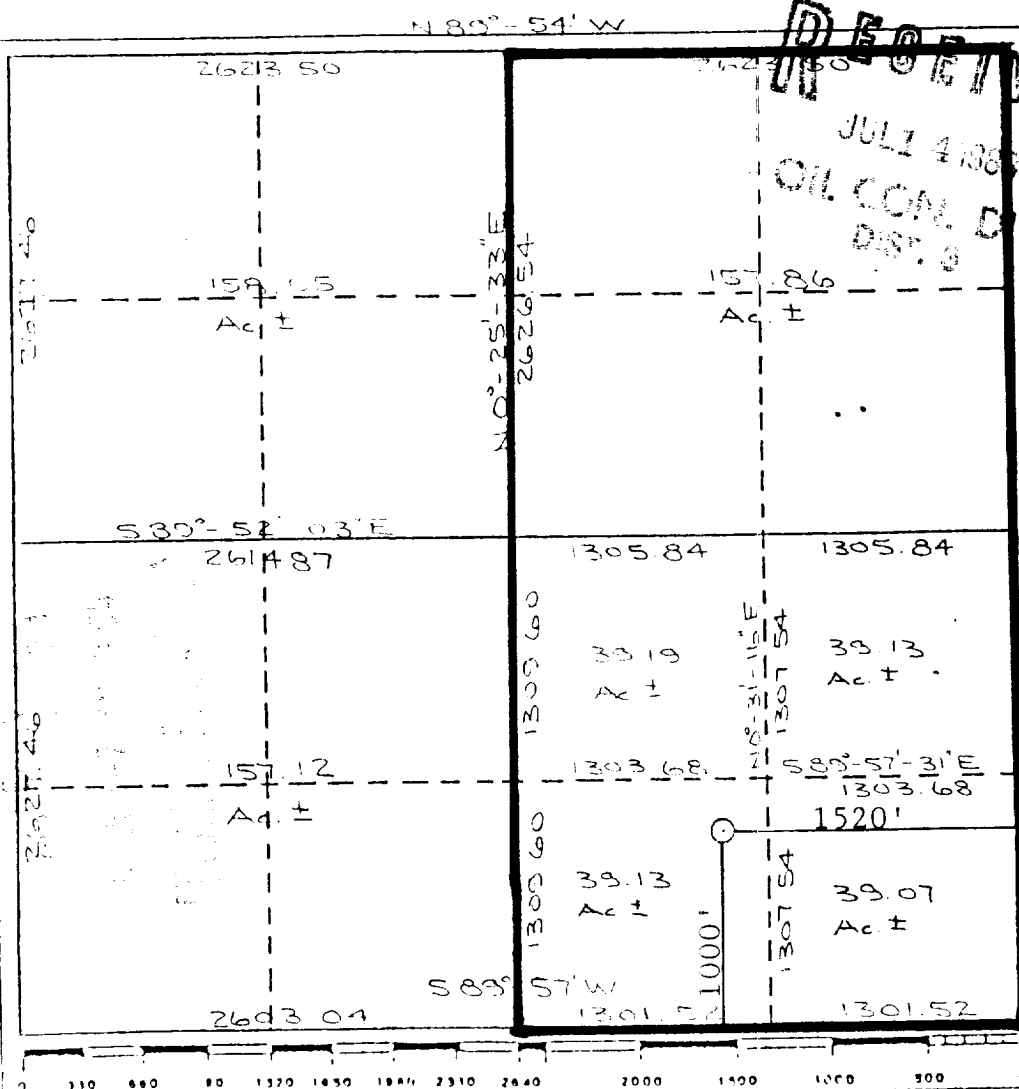
Operator UNION TEXAS PETROLEUM		Lease NORDHAUS		Well No. 4-A
Unit Letter O	Section 12	Township 31N	Range 9W	County San Juan
Actual Postage Location of Wells: 1000 feet from the South line and 1520 feet from the East line				
Ground Level Elev. 6471	Producing Formation Mesaverde	Pool Blanco	Dedicated Acreage 7/8 E/2 314.38 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation

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

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



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

Name	Robert C. Frank
Position	Permit Coordinator
Company	Union Texas Petroleum
Date	June 6, 1988

I hereby certify that the above location shown on the plot was plotted from field notes and actual survey 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
November 19, 1987

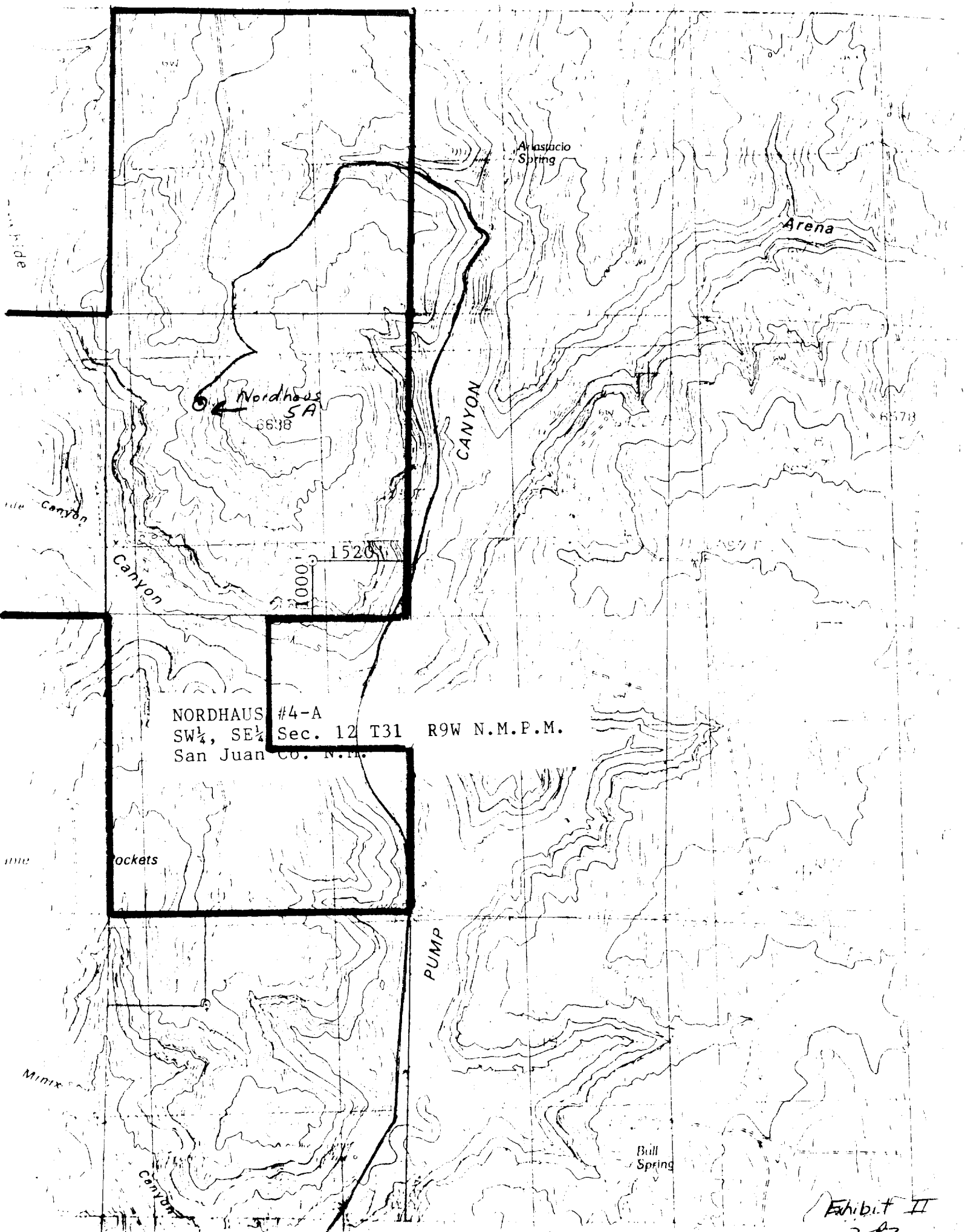
Registered Land Surveyor

Cecil B. Tullis

Certificate No.

9672

Exhibit I



NORDHAUS #4-A
SW $\frac{1}{4}$, SE $\frac{1}{4}$ Sec. 12 T31 R9W N.M.P.M.
San Juan Co. N.M.

Exhibit II
2A2