N.M.O.C.D. COPY LICATE.

(Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425.

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

_			_		//-	
	LEASE	DESIG	ATION	GNA	SERIAL	NO.
	LC-	0460)44			

APPLICATIO	N FOR PERMIT T	O DRILL, I	DEEPE	EN, OR PLU	G BACK	6. IF INDIAN, ALLOTTEE	OR TRIBE NAME	
1a. TYPE OF WORK	······································	_						
DR	ILL 🔯	DEEPEN		PLUG	BACK 🔲	7. UNIT AGREEMENT N	AME	
b. TYPE OF WELL								
	AS OTHER				NE	8. FARM OR LEASE NAM	#E	
2. NAME OF OPERATOR				(Ph. 505- 74 6	-2422)	PERRY LEONARI	D-FFDERAL	
MARBO	OB ENERGY CORPOR	ATION		REC	EIAEA	9. WELL NO.		
3. ADDRESS OF OPERATOR						5		
	. Box 304, Artes				Q 1001	10. FIELD AND POOL, OR WILDCAT		
4. LOCATION OF WELL (R	deport location clearly and	in accordance wit	th any S	tate requirements.*	0 1301	Loco Hills.	G-SA	
	FSL & 2310' FWL	of Sec 3	3-179	S-29F A	~ ^	11. SEC., T., R., M., ORI	BLK.	
		. 01 360. 3	·	~ .	C. D.	AND SURVEY OR AR	KKA.	
At proposed prod. zon	ae			ARTESI	A, OFFICE)	Sec 33-17S-2	9E	
same	AND DIRECTION FROM NEAR	DOM TOLEN OF BOS	m oppic	28		12. COUNTY OR PARISH		
18 a	ir miles east-so	outneast of	AFTE	esia, N. M.		Eddy	N. M.	
15. DISTANCE FROM PROP			16. No	OF ACRES IN LEAS		F ACRES ASSIGNED		
LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any)								
18, DISTANCE FROM PROI	POSED LOCATION*			OPOSED DEPTH		20. ROTARY OR CABLE TOOLS		
TO NEAREST WELL, I OR APPLIED FOR, ON TE	ORILLING, COMPLETED, HIS LEASE, FT.	60 '	3000	' San Andres	Ro	tary		
21. ELEVATIONS (Show wh	ether DF, RT, GR, etc.)					22. APPROX. DATE WO	RK WILL START	
3537 G. L.						5-15-81 (S	pud)	
23.	P	ROPOSED CASI	NG ANI	CEMENTING PR	OGRAM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER F	оот	SETTING DEPTH		QUANTITY OF CEMEN	\T	
11"	8 5/8	23 #		300'	Circ	ulate cement t	o surface	
		9.5#	<i>!</i>	3000'	200	00 sacks		

Well will be drilled to the San Andres zone and all potential zones will be evaluated. If commercial production is indicated, well will be selectively perforated and stimulated.

Attached are:

24.

- 1. Well Location and Acreage Dedication Pla-
- 2. Ten-Point Supplemental Drilling Data
- 3. Surface Use Plan.

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. April 17. 1981 SIGNED (This s PERMIT Orig. 3841 GEORGI H. STEWART TITLE JAMES A. GILLHAM DISTRICT SUPERVISOR

*See Instructions On Reverse Side

MARBOB ENERGY CORPORATION Unit Letter N Section N Township 17 South 29 East County EDDY Actual Footage Location of Well: 330 feet from the South line and 2310 feet from the County Ground Level Elev: Producing Formation Pool Dedicated Acreage:			All distances m	ust be from the out	er boundaries of	the Section.		· ·
Actual Poctoge Location of West: 30	Operator MARBOB ENERGY CORPORATION Lease PERRY-LEONARD FEDERAL 5							Well No.
330 test from the South the mode 2310 feet from the West three Count Layra Eleve. Product profession. 7537 Posturg—San Andres Loco HIIIs V-H-A 1. Outline the acreage dedicated to the subject well by colored pencil or hackure 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 II 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 Commission. CERTIFICATION 1 hereby certify that the information composite to the fact of my knowledge and belief. None Agent April 17, 1981 1 hereby certify that the well faction shown on this plat was plated from tells notes of count surveys mode by me or unitary supervision, and that the same is true and correct to the best of my knowledge and belief. Date European. Narch 20, 1981 Registered Professional Engineers Offer Land Surveys. Centificate No. Centificate No. Center of the Agent Composite of the well continues of second surveys mode by me or unitary supervision, and that the same is true and correct to the best of my knowledge and belief. Date European. Narch 20, 1981 Registered Professional Engineers Offer Land Surveys. Centered No. Cente	N	33					DDY	
Count Lyral Elaw Promettor Promettor Sprayburg—San Andres Pool 1. Outline the acreage dedicated to the subject well by colored pencil or backure 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, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission. CERTIFICATION I hereby certify that the information contained have in the row and complete to the part of the plat was plared from field noise of section shown on this plat was plared from field noise of section about on the plat the plat was plared from field noise of section and the the section about on the plat the plat was plared from field noise of section about on the plat the plat was plared from field noise of section about on the plat the plat was plared from field noise of section about on the plat the plat was plared from field noise of section about on the plat the plat was plared from field noise of section about on the plat the plat was plared from field noise of section about on the plat the plat was planed from field noise of section about on the plat was planed from field noise of section about on the plat the plate of the		<	iouth .	2310	•	· from the	West	line
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	- 23	010') Oose			O A	March 20 Registered Profes gravor Land Survey	ssional Engineer

SUPPLEMENTAL DRILLING DATA

MARBOB ENERGY CORPORATION WELL #5 PERRY LEONARD-FEDERAL 330' FSL & 2310' FWL SEC 33-17S-29E

- 1. SURFACE FORMATION: Quaternary.
- 2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Salt	350 '	Queen	1930 '
Base Salt	760 '	Grayburg	2370
Yates	930 '	San Andres	2790

3. ANTICIPATED POROSITY ZONES:

Water	Above 180'
Oil	2450 - 30001

4. CASING DESIGN:

Size	Interval	Weight	Grade	<u>Joint</u>	Condition
8 5/8"	0 - 300'	23 #	X-42	STC	New
4 1/2"	0 - 30001	9.5#	K-55	STC	New

- 5. PRESSURE CONTROL EQUIPMENT: Double Ram-Type Preventer (600 Series).
- 6. CIRCULATING MEDIUM:
 - 0 300' Fresh water mud with gel or lime as needed for viscosity control.
 - 300 3000' Salt water mud, conditioned as necessary for control of viscosity and water loss. At 100' above TD, sweep hole with salt water gel, conditioning mud to 36 viscosity.
- 7. AUXILIARY EQUIPMENT: Drill string safety valve.
- 8. TESTING, LOGGING AND CORING PROGRAMS: No coring or DST's are planned. Electric logs will include a CNL-FDC w/GR.
- 9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE GAS: None anticipated.
- 10. ANTICIPATED STARTING DATE:
 - A. Road and pad construction: May 11, 1981
 - B. Spudding well: May 15, 1981
 - C. Duration of drilling and completion operations should be 10 to 30 days.

SURFACE USE PLAN

FOR

DRILLING, COMPLETING AND PRODUCING

MARBOB ENERGY CORPORATION WELL #5 PERRY LEONARD-FEDERAL 330' FSL & 2310' FWL SEC 33-17\$-29E EDDY COUNTY, NEW MEXICO

LOCATED:

18 air miles east-southeast of Artesia, N. M.

FEDERAL LEASE NUMBER:

LC-046044

LEASE ISSUED:

12-31-38 for a primary term of 5 years and is

in its extended term by production.

RECORD LESSEE:

Harold Kersey

OPERATOR'S AUTHORITY: Approved operating agreement.

BOND COVERAGE:

Marbob's \$25,000 Statewide Bond

ACRES IN LEASE:

80

SURFACE OWNERSHIP:

State of New Mexico

GRAZING PERMITTEE:

Bogle Farms, Inc.

P. O. Box 358, Dexter, New Mexico 88230

WELL SPACING:

Loco Hills-Grayburg, San Andres

EXHIBITS:

Portion of Eddy County Road Map Portion of Red Lake-SE Topo Map

C. Portion of USGS Lease Maps #11 & #16

D. Sketch of Well Pad

State Land Restoration Requirements

ROAD LOG TO PROPOSED DRILLSITE

STARTING POINT is 18 miles east of Artesia, N. M. on Federal Highway US-82 at Mile Post 125.75. This point is $6\frac{1}{2}$ miles west of Loco Hills, New Mexico.

- 0.00 On east side of Old Lucas Store Ruins, turn south on county road and proceed in a south-southeasterly direction for a distance of 2.18 miles to the northeast corner of the proposed well pad.
- 2.18 PROPOSED DRILLSITE (#5 Perry Leonard-Federal)

THIRTEEN POINT PROGRAM

1. EXISTING ROADS:

A. Existing roads, which lead to the proposed drillsite, are shown on Exhibits "A" & "B".

2. PROPOSED NEW ROAD:

A. No new roads will be required. The proposed well pad will extend to the existing county road as shown on Exhibit "D".

3. LOCATION OF EXISTING WELLS:

A. Existing wells in the vacinity of the proposed drillsite are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. This is a producing lease and Marbob has an existing tank battery which is located in the approximate center of the $S\frac{1}{2}SE\frac{1}{4}$ 33-17S-29E.
- B. If the proposed well is productive, the flowline will be laid on top of the ground to the tank battery. It will be approximately 1000' in length.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is not planned to drill a water supply well. Water for leasehold operations will be purchased from a commercial water hauler.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Material for construction of the well pad will be obtained from a pit located on mineral reserve land in the NW-NE 4-18S-29E.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits.
- D. Oil produced during tests will be produced into temporary test tanks.
- E. Trash, waste paper, garbage, and junk will be buried in a trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "D".
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing each drilling and/or completion operation.

8. ANCILLARY FACILITIES:

A. None anticipated.

9. WELLSITE LAYOUT:

- A. The wellsite has been surveyed, staked and flagged.
- B. The dimensions and relative location of the drill pad, mud pit, and trash pit with respect to the well bore are shown on Exhibit "D". The drill pad has been rotated 110° counterclockwise so that the base of the pad will lay against the road.

- C. Except for small hummocks which need leveling, the well pad is nearly flat.
- D. The well pad will be surfaced with caliche.

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 wellsite in as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment, all equipment, trash and junk will be removed and the location cleaned.

11. OTHER INFORMATION:

- A. <u>Topography</u>: The terrain around the drillsite is level except for small 2-4' hummocks. Local slope is to the southeast with regional slope to the southwest.
- B. Soil: Loamy sand
- C. Flora and Fauna: The vacinity surrounding the drillsite is semi-arid desert rangeland. Vegetative cover is sparse. Flora consists of mesquite, hucca, sage and very little grass. No wildlife was observed, but fauna for this type of habitat consists mostly of quail, dove, rabbits, rodents, coyotes, and skunks.
- D. Ponds and Streams: None.
- E. Residences and Other Structures: Nearest occupied dwelling is 1 mile to the north. Nearest water well is 1 mile to the north.
- F. Archaeological, Historical and Other Cultural Sites: An archaeological reconnaissance of the 400' x 400' area was made on April 7, 1981 by the New Mexico Archaeological Services, Inc. who recommended clearance from the Bureau of Land Management.
- G. Land Use: Grazing and occasional hunting.

12. OPERATOR'S REPRESENTATIVE:

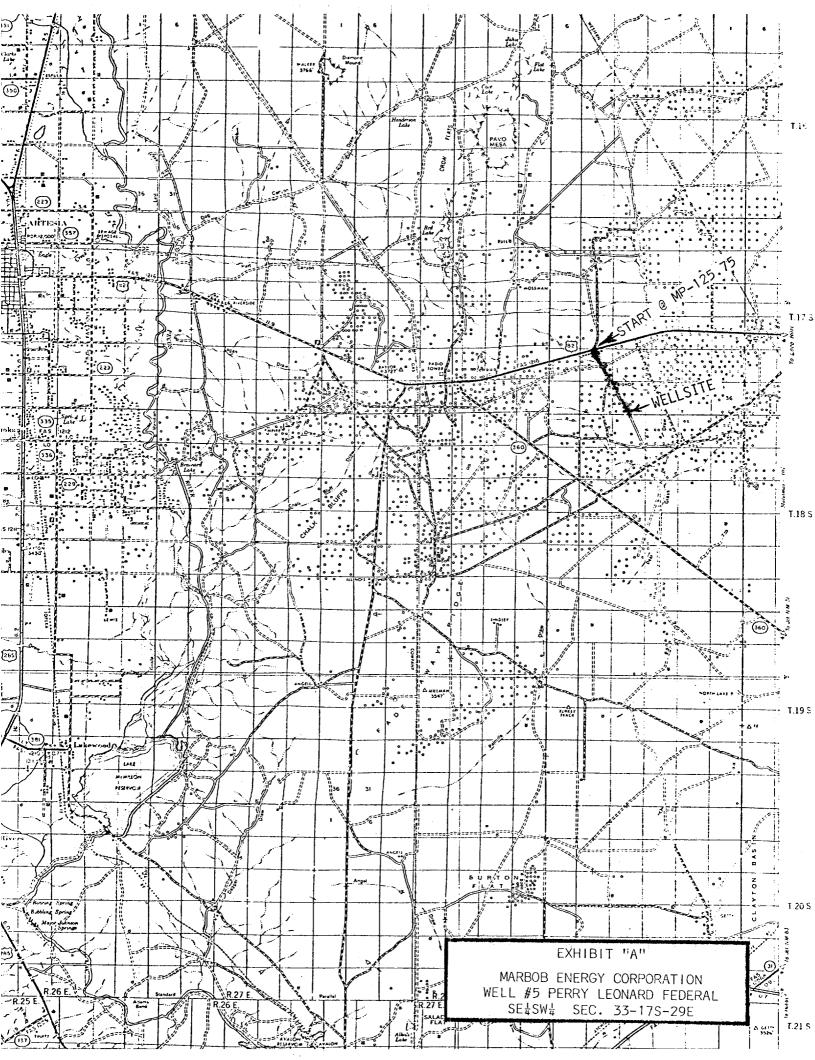
Representative responsible for assuring compliance with the approved Surface Use Plan:

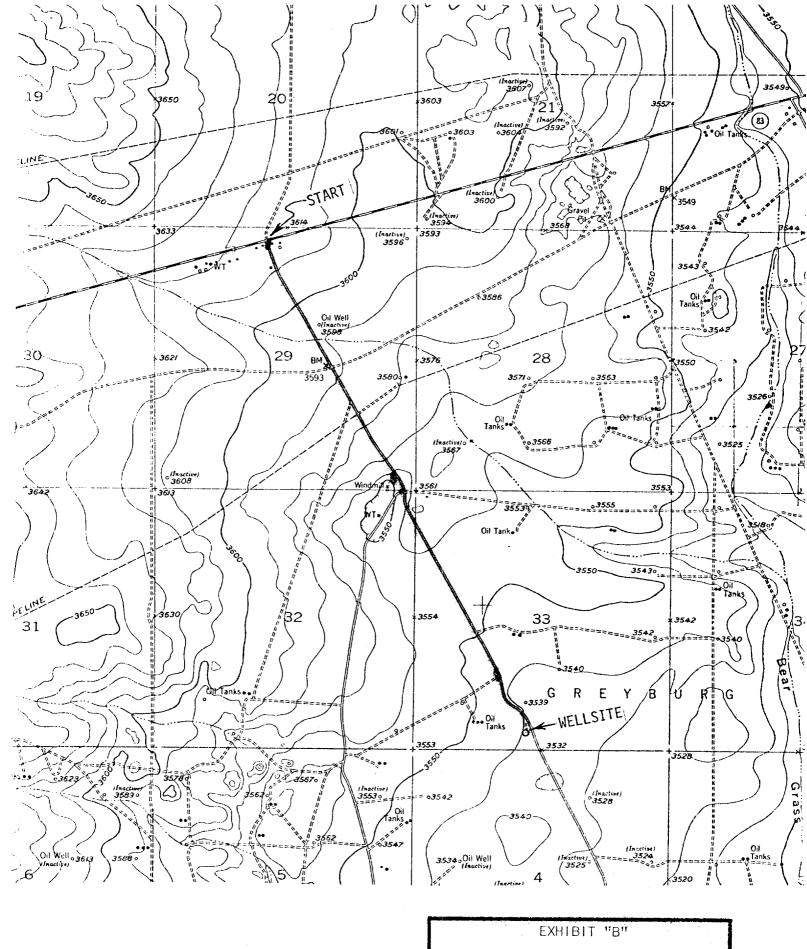
> Mack Chase P. O. Box 304 Artesia, New Mexico 88210 Office 505-746-2422 Home 505-746-4877

13. CERTIFICATION:

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 presently exist; that the statements made in this 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 MARBOB ENERGY CORPORATION and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

MARBOB ENERGY CORPORATION





MARBOB ENERGY CORPORATION
WELL #5 PERRY LEONARD FEDERAL
SELSWL SEC. 33-17S-29E

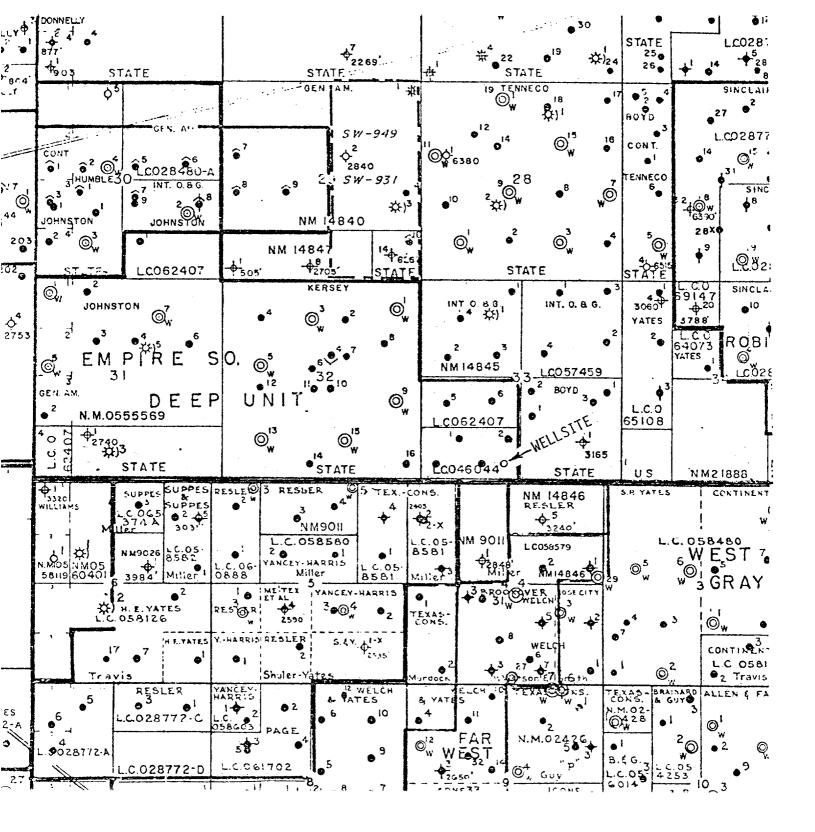
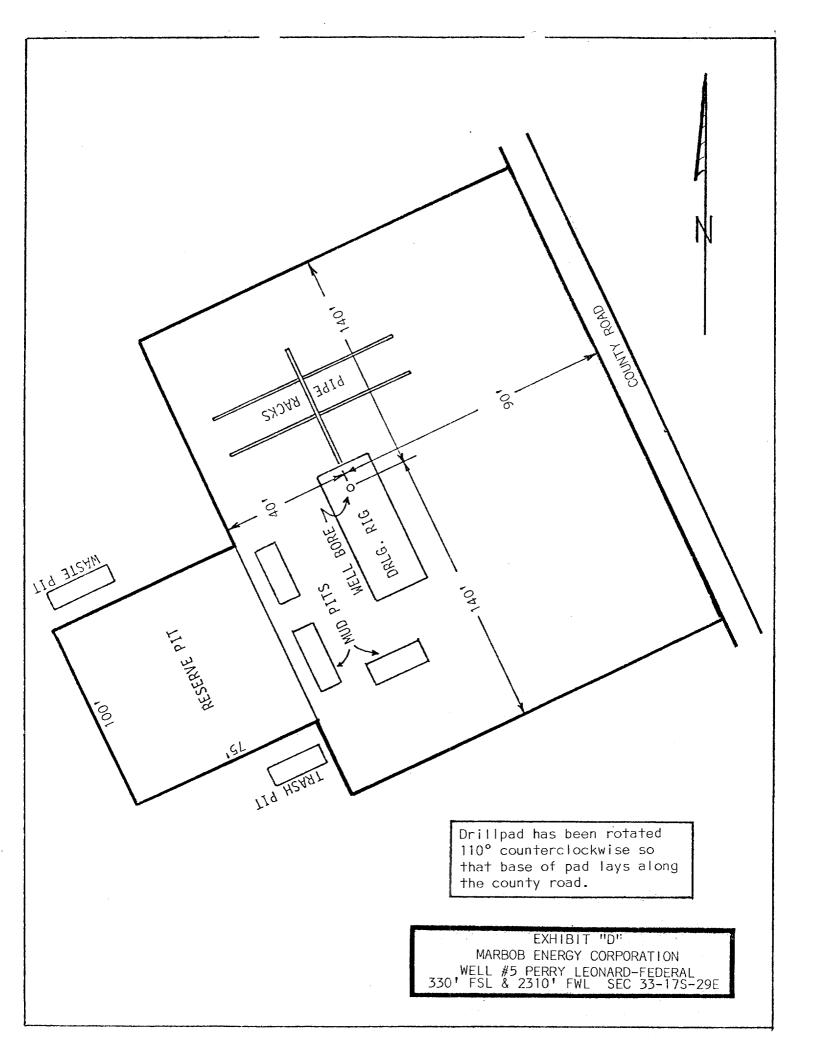


EXHIBIT "C"

MARBOB ENERGY CORPORATION
WELL #5 PERRY LEONARD FEDERAL
SELSWL SEC. 33-17S-29E



ARTHUR R. BROWN 101 E. Marland Hobbs, New Mexico 88240 Office (505) 397-2767 Home (505) 392-5642

PETROLEUM ENGINEERING & REGULATORY SERVICES

JAMES A. KNAUF 1501 W. Missouri Artesia, New Mexcio 88210 Phone (505) 746-4138

1501 W. Missouri Artesia, New Mexico 88210

April 17, 1981

District Oil & Gas Supervisor U. S. Geological Survey P. O. Drawer 1857 Roswell, New Mexico 88201

Re: Federal APD on Non-Federal Land

Dear Sir:

This refers to MARBOB ENERGY CORPORATION'S Application For Permit to Drill Well No. 5 PERRY LEONARD-FEDERAL in the $SE\frac{1}{4}SW\frac{1}{4}$ Sec. 33, T. 17 S., R. 29 E., Eddy County, New Mexico under Federal oil and gas lease LC-046044.

The well location is on mineral reserve land which is owned by the State of New Mexico. Mr. Roy Renfroe with the New Mexico State Land Office at Carlsbad, New Mexico was contacted on April 16, 1981, concerning the drilling of this well.

Mr. Renfroe advised that they have no "special" restoration requirements for this area. General surface requirements for abandoning oil and gas wells on New Mexico rangeland is that the well pad and any dead-end roads be ripped and that all pits be filled.

Sincerely,

James A. Knauf, Ageñf Marbob Energy Corporation

EXHIBIT "E"

MARBOB ENERGY CORPORATION WELL #5 PERRY LEONARD FEDERAL SELSWE SEC. 33-17S-29E