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NEW MEXICO OIL CONSERVATION COMMISSION  
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MAR 04 1983

O. C. D.

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input type="checkbox"/>	FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

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"/>				7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. Farm or Lease Name Rose Federal Com	
2. Name of Operator DEPCO, INC. ✓				9. Well No. 13	
3. Address of Operator 800 CENTRAL, ODESSA, TX 79761				10. Field and Pool, or Wildcat Pecos Slopes Abo	
4. Location of Well UNIT LETTER K LOCATED 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE West LINE OF SEC. 21 TWP. 5S RGE. 25E NMPM				12. County Chaves	
21. Elevations (Show whether DF, RT, etc.) 3795' GR		21A. Kind & Status Plug. Bond Blanket		21B. Drilling Contractor WEK	
19. Proposed Depth 4220'		19A. Formation Abo		20. Rotary or C.T. Rotary	
				22. Approx. Date Work will start On approval	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
14 3/4"	10 3/4"	40.50#	1000'	Circ.	
7 7/8"	4 1/2"	10.50#	4220'	675 sx w/DV	cool @ 1780'
				At least 200 shoe	above 10 3/4"

Mud Program: See letter from Marrs Mud Co.  
BOP Program: See Exhibit "D"  
Gas Production Dedicated

*Posted Abo  
FD-1211 Book  
3-11-83*

APPROVAL VALID FOR 180 DAYS  
PERMIT EXPIRES 4/15/83  
UNLESS DRILLING UNDERWAY

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed R. L. Denney R. L. Denney Title Chief Production Clerk Date 3-3-83

(This space for State Use)

APPROVED BY Mike Walker TITLE OIL AND GAS INSPECTOR DATE MAR 08 1983

CONDITIONS OF APPROVAL, IF ANY:

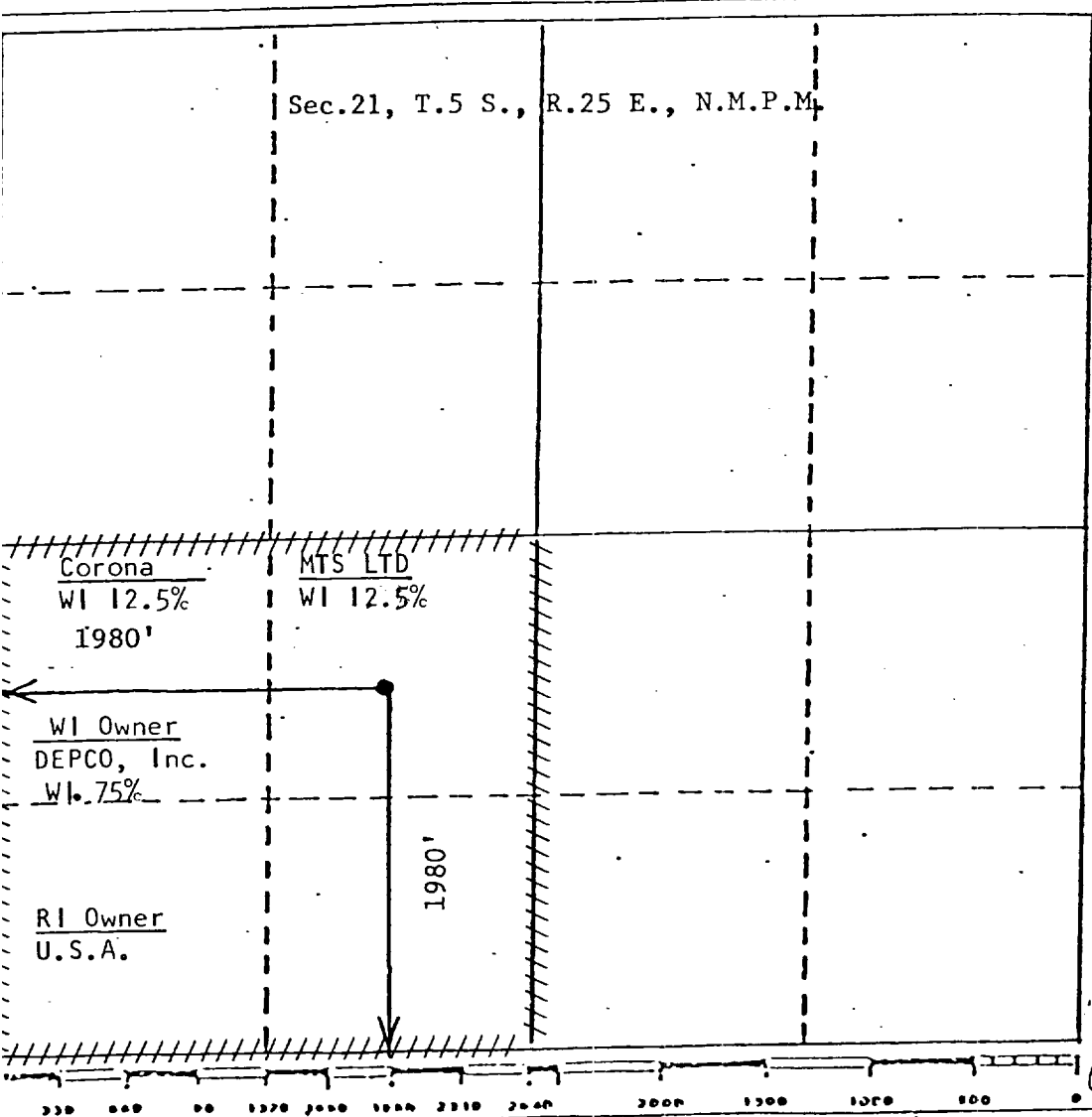
All distances must be from the outer boundaries of the Section.

Operator Depco		Lease Rose Federal Com		Well No. #13
Unit Letter K	Section 21	Township 5 South	Range 25 East	County Chaves
Actual Postage Location of Well:				
1980	feet from the	South	line and	1980
feet from the	West	line		
Ground Level Elev. 3795	Producing Formation Abo		Pool Pecos Slopes Abo	Dedicated Acres: 160
				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 Communitization

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.



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	<u>R. L. Denney</u>
Position	<u>Chief Production Clerk</u>
Company	<u>DEPCO, Inc.</u>
Date	<u>2-18-83</u>
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	<u>February 16, 1983</u>
Registered Professional Engineer and/or Land Surveyor	<u>John D. Jaquess</u>
Certificate No.	<u>6290</u>



MARRS MUD

A DIVISION OF

CORRAL, INC.

P. O. BOX 1119

LOVINGTON, NM 88260

AREA CODE 505/396-4876

AREA CODE 505/396-2540

COMPANY DEPCO, INCORP. RATED

WELL NORTH ROSWELL PROSPECTS

FIELD \_\_\_\_\_

LOCATION SECTIONS 18,19,20,21, T-5S, R-25E

COUNTY CHAVES STATE NEW MEXICO

PROPOSED DEPTH 4,500'

PROPOSED MUD PROGRAM

CASING PROGRAM:

12 1/4" Hole set 8 5/8" Surface 820' or 50' into San Adres  
7 7/8" Hole set 4 1/2" Production at 4,500'

SUGGESTED MUD PROPERTIES

<u>DEPTH</u> <u>(FFET)</u>	<u>MUD WEIGHT</u> <u>(PPG)</u>	<u>VISCOSITY</u> <u>(SEC)</u>	<u>FLUID LOSS</u> <u>(ML)</u>
100	8.4 - 8.6	34 - 36	No Control
300	8.6 - 8.8	34 - 36	No Control
600	8.6 - 8.8	34 - 36	No Control
720	8.6 - 8.8	34 - 36	No Control
820	8.6 - 8.8	34 - 36	No Control

Drill 12 1/4" Surface Hole and set 8 5/8" Surface Casing at 790' or 50' into San Andres.

1,000	10.0	28	No Control
2,000	10.0	28	No Control
3,000	10.0	28	No Control
3,800	10.0 - 10.2	38 - 40	10 - 15
4,000	10.0 - 10.2	38 - 40	10 - 15
4,250	10.0 - 10.2	42 - 44	10 - 15
4,640	10.0 - 10.2	45 - 50	6 - 8

Set 4 1/2" Production Casing at 4,500'.



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WELL NORTH ROSWELL PROSPECTS  
FIELD \_\_\_\_\_  
LOCATION SECTIONS 18,19,20,21, T-5S, R-25E  
COUNTY CHAVES STATE NEW MEXICO  
PROPOSED DEPTH 4,500'

SUGGESTED MUD PROGRAM BY CASING INTERVAL

SURFACE: 0 - 820'

We suggest Spudding a 12 1/2" Hole with a Fresh Water Gel/Lime Slurry maintaining a 34-36 Sec/1000cc Viscosity. A fluid of this nature should provide adequate cleaning while drilling the shallow, poorly consolidated formations. It is very important to maintain a STABLE Viscosity while drilling this interval to help eliminate hole problems. A few sacks of Dicks Mud Seal (shredded paper) will also be beneficial.

PRODUCTION: 820' - 4,500'

Drill from below Surface Casing with Fresh Water circulating the reserve pit. This fluid will become Salt Saturated while drilling the Salt Section. We suggest using Caustic Soda for a 9.0-9.5 pH. Zinc Chromate and Scale Inhibitor may also be used for corrosion control. This fluid should be adequate to drill to 3,800' of 150' above the ABO Formation. Here we suggest mudding up with a Salt Gel/Starch/Oil type system with the following properties:

Mud Weight - 10.0 - 10.2 PPG  
Viscosity - 38 - 40 Sec/1000cc  
Fluid Loss - 10 - 15 ML  
Oil Content - 4- - 5%

A fluid with the above properties, with the exception of raising the Viscosity to 45-50 Sec/1000cc and lowering the Fluid Loss to 6-8cc or below, prior to total depth, should be adequate to safely drill, test, and log.

COMMENTS:

1. There is a very slight chance of encountering lost circulation around 4,200'. If this occurs we suggest mixing pills of 100 barrels lost circulation material and spotting in zone of loss until full returns are recovered.
2. If Multi Mul is used in place of Oil in Production hole, we suggest adding Multi Mul when drilling out from under Surface Casing and maintaining a 2/10 of 1% of total volume. At mud up depth we suggest having 5/10 of 1% of total volume.



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COMPANY DEPCO, INCORPORATED  
WELL NORTH ROSWELL PROSPECTS  
FIELD \_\_\_\_\_  
LOCATION SECTIONS 18,19,20,21, T-5S, R-25E  
COUNTY CHAVES STATE NEW MEXICO  
PROPOSED DEPTH 4,500'

ESTIMATED MUD COST: \$8,000 - \$11,000 Per Well

The estimated mud cost is under normal conditions and does not include any extensive loss of circulation, fishing, etc. This cost is also based on normal drilling rate per day, therefore, any excessive time spent on drilling due to crooked hole, test-in, breakdown, etc., would increase mud cost.

PERSONNEL

MUD ENGINEERS:

Mike Samuels and Randy Holmes will be the engineers responsible for your wells, North Roswell Prospects. Mike's home number is 505/623-5029 and Caprock Unit #4158. Randy's home number is 505/624-1130 and Caprock Unit #4295. Both engineers live in Roswell and can be reached on their units by dialing 505/623-0989. They will work very closely with rig crews and Depco, Inc. field supervisors to insure good communications and successful completion of the well.

SENIOR ENGINEER:

Bud Holmes will be supervisor of mud engineers and can be contacted at any time at 505/397-3291 Unit #4975. His home number with answering service is 505/392-3128.

WAREHOUSE MANAGER:

Bernie Haumesser can be reached at 505/396-2540 24 hours a day.



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P. O. BOX 1119

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COMPANY DEPCO, INCORPORATED

WELL NORTH ROSWELL PROSPECTS

FIELD

LOCATION SECTIONS 18,19,20,21, T-5S, R-25E

COUNTY CHAVES STATE NEW MEXICO

PROPOSED DEPTH 4,500'

### PRODUCT DATA SHEET

PREMIUM GEL: is a bentonite clay used for viscosity in all Fresh Water muds. In muds with 35,000 PPM salt, the yield of bentonite is greatly reduced unless prehydrated in Fresh Water and then added to salt mud. 22.5 PPB will yield approximately 36 Sec/1000cc viscosity.

BENEX: is used primarily to help settle solids out of drilling fluid. Benex becomes less effective as salt or calcium content increases.

CAUSTIC SODA: is used for pH control in all water-base muds. Caustic Soda at 1/2 PPB added through the chemical barrel will maintain 9.0-9.5 pH.

SALT GEL: is an attapulgite clay used for deriving a viscosity in muds in excess of 35,000 PPM salt. 15 PPB will provide approximately 36 Sec/1000cc viscosity.

DICKS MUD SEAL: is a shredded drilling paper used to prevent seepage problems and provide a good wall cake.

DEFOAM: is a liquid-surface active agent used to defoam all water-base mud systems.

STARCH: is a corn starch, used primarily to lower fluid loss in salt muds. Normal treatment for starch is 2 to 6 PPB. A preservative must also be used in water with less than saturated salt content.

LIME: is used in formulating spud muds. Its unique application works well in providing quick viscosity.

MULTI MUL: is a liquid additive used to reduce torque and drag, increase penetration rate, and add lubricity to the hole. Multi Mul is used in 2/10-5/10 of 1% of total volume.

KWIK SEAL, MULTI SEAL, CEDAR FIBER, MICA: these materials are used in formulation of loss circulation pills, and to aid in controlling seepage.

AL 505  
623 6862



AL 505  
396 4876  
392 5616

**MARRS ML**  
a division of  
Corral, Inc  
1717 West Second St  
Roswell, New Mexico 88201

Sales Office  
P O. Box 1119  
Lovington, New Mexico 88260

COMPANY -- DEPCO, INCORPORATED  
WELL -- NORTH ROSWELL PROSPECTS  
FIELD --  
LOCATION SECTIONS, 18,19,20,21 T-5S, R-25E  
COUNTY CHAVES STATE NEW MEXICO  
PROPOSED DEPTH 4,500'

"STOCK POINT"

MARRS MUD

505/396-2540

505/396-4876

PERSONNEL:

WAYNE MARRS  
GENERAL MANAGER  
LOVINGTON, N.M.  
505/396-4876

MIKE SAMUELS  
SALES & SERVICE REP.  
ROSWELL, N.M.  
505/623-5029 UNIT 4158

NORMAN BENTLE  
ASSISTANT MANAGER  
HOBBS, N.M.  
505/393-5616 UNIT 4963

JIM BARNETT  
SALES & SERVICE REP.  
HOBBS, N.M.  
505/393-6081 UNIT 4974

SAMIE "BUD" HOLMES  
SR. SALES & SERVICE REP.  
HOBBS, N.M.  
505/392-3128 UNIT 4975

RICK RIPPY  
SALES & SERVICE REP.  
HOBBS, N.M.  
505/392-3470 UNIT 4973

JIM McNULTY  
SALES REP.  
MIDLAND, TEXAS  
915/684-7218

RANDY HOLMES  
SALES & SERVICE REP.  
ROSWELL, N.M.  
505/624-1130 UNIT 4295

STEVE MARRS  
SALES & SERVICE REP.  
DENVER CITY, TEXAS  
806/592-3163  
MOBILE #806/456-2324

COMMUNICATIONS:

24 HOUR ANSWERING  
SERVICE 505/397-3291