

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY(Other instructions on  
reverse side)

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>LC 031670A</b>
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR <b>CONTINENTAL OIL COMPANY</b>		7. UNIT AGREEMENT NAME <b>SEMU</b>
3. ADDRESS OF OPERATOR <b>P. O. Box 460, Hobbs, N.M. 88240</b>		8. FARM OR LEASE NAME <b>SEMU PERMIAN</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface <b>2615' FSL + 2615' FSL</b> At proposed prod. zone		9. WELL NO. <b>107</b>
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		10. FIELD AND POOL, OR WILDCAT <b>Skaggs Grayburg</b>
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>SEC. 10 T20S R38E</b>
16. NO. OF ACRES IN LEASE		12. COUNTY OR PARISH <b>LEA</b>
17. NO. OF ACRES ASSIGNED TO THIS WELL <b>40</b>		13. STATE <b>N.M.</b>
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		20. ROTARY OR CABLE TOOLS <b>ROTARY</b>
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>3536.7 GR</b>		22. APPROX. DATE WORK WILL START* <b>JUNE 30, 1979</b>

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	10 3/4"	40.5 #	1400'	500 cu cins
9 7/8"	7"	23 #	2600'	375 cu cins
6 1/4"	4 1/2"	10.5 #	3950'	325 cu cins

It is proposed to drill a straight hole to a TD of 3950' and complete as a Skaggs Grayburg oil well.

See Attachment for 10 point well plan

See Attached for 13 point Surface Uss Plan

RECEIVED

APR 17 1979

U. S. GEOLOGICAL SURVEY  
HOBBS, NEW MEXICO

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

TITLE

Administrative Supervisor

DATE

4-17-79

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

USGS 6

NMFU 4

JAB

FILE

\*See Instructions On Reverse Side

ATTACHMENT TO FORM 9-331 C  
APPLICATION FOR PERMIT TO DRILL

Continental Oil Company

SEMU Permian Nos. 105, 106, 107  
T20S R38E  
Lea County, New Mexico

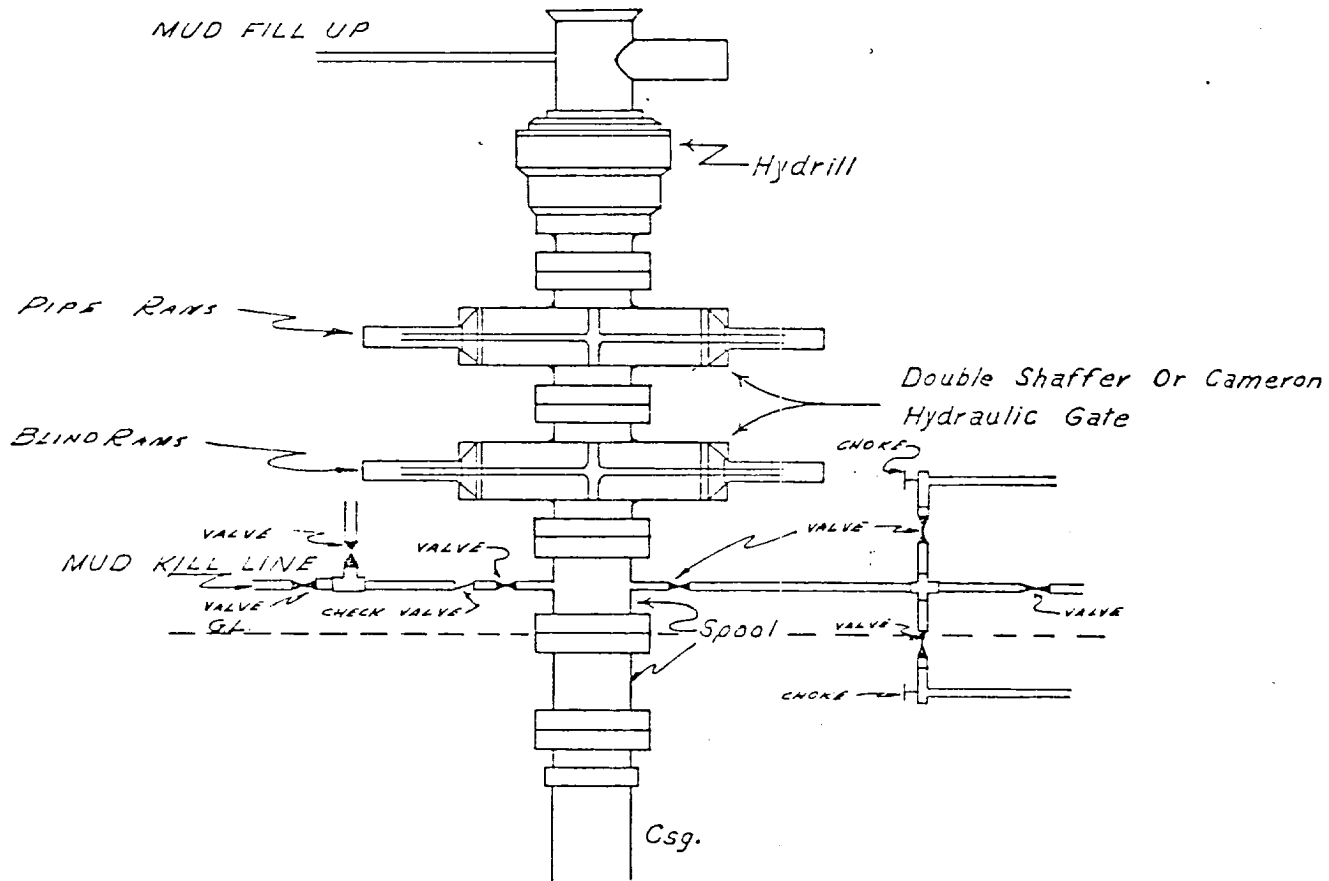
1. The geologic name of the surface formation is Quaternary Sand.
2. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan.
3. The estimated depths at which anticipated water, oil, gas or other mineral-bearing formations to be encountered are shown on attached Proposed Well Plan.
4. The proposed casing program is as follows:  
  
0-1400' 10 3/4", 40.5#, H-40, ST&C  
0-2600' 7", 23#, K-55, ST&C  
0-3950' 4 1/2", 10.5#, K-55, ST&C
5. A drawing of an API Series 900 Blowout Preventer Specification is attached. Pipe rams and blinds will be checked to 1,000 PSI for 30 minutes when BOP is installed. BOP will be checked when casing string is set and operated daily for checks.
6. The proposed mud program is as follows:  
  
0-1400' 8.5-9.0 ppg spud mud  
1400'-2600' 9.0-9.5 ppg salt water gel  
2600'-3950' 10.0-15.5 ppg weighted brine gel
7. The auxiliary equipment to be used is:  
  
(1) kelly cocks  
(2) floats at the bit
8. It is proposed to run GR CAL CNL FDC PDC logs at selected intervals, as shown on the attached Proposed Well Plan.
9. No abnormal pressures or temperatures are expected to be encountered in this well.
10. The anticipated starting date for the first well is June 1, 1979, with a duration of approximately 14 days for each well.

PEB:cab

WELL NAME: SEMI-EXPLORATION No. 107COUNTY: LeaLOCATION: 2500' FNL & 2400' FELSTATE: NMSec. 19, T20S, R38EEST. KB: 3553EST. GL: 3540

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING		FRACTURE GRADIENT	FORMATION PRESSURE GRADIENT	MUD	
					SIZE	DEPTH			WEIGHT	TYPE
	<u>Plaiocene</u>									
	<u>Water ss.</u>	<u>50-175</u>								
<u>1050</u>										
	<u>Rustler sh.</u>	<u>1350</u>		<u>15"</u>	<u>12 3/4"</u>	<u>1450'</u>	<u>12.0</u>	<u>Less than 3.5</u>	<u>8.5 - 9.0</u>	<u>Fresh - wh.</u>
	<u>Salado salt</u>	<u>1440</u>								
			<u>Geological Deflection 0-TD</u>							
<u>2000</u>										
	<u>Base Salt</u>	<u>2520</u>	<u>Porosity</u>	<u>9 1/2"</u>	<u>7"</u>	<u>2600'</u>	<u>15.3</u>	<u>25-9.0</u>	<u>7.0 - 7.5</u>	<u>Salt</u>
	<u>Yates ss.</u>	<u>2660</u>	<u>below 2000'</u>							<u>Salt wh.</u>
	<u>Seven Rivers dol.</u>	<u>2900</u>								
<u>3000</u>										
	<u>Queen ss.</u>	<u>3470</u>								
	<u>Penrose ss.</u>	<u>3610</u>	<u>Porosity</u>							
	<u>Grayburg dol.</u>	<u>3780</u>	<u>OVERPRESSURE</u> <u>at 3780' - 3800'</u>							
	<u>TD 3950</u>		<u>GR-CNL-FDC</u> <u>DLL</u> <u>TD - 2600'</u>	<u>6 1/4"</u>	<u>4 1/2"</u>	<u>3950'</u>	<u>16.5</u>	<u>15.3</u>	<u>15.5</u>	<u>wh</u> <u>3 in</u> <u>sel</u>

CONTINENTAL OIL COMPANY  
Blow-out Preventer Specifications



NOTE:

API SERIES 900

Manual and Hydraulic controls with closing unit no less than 75' from well head.  
Remote controls on rig floor.

DUE TO SUBSTRUCTURE CLEARANCE,  
HYDRILL MAY OR MAY NOT BE USED.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form 1  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

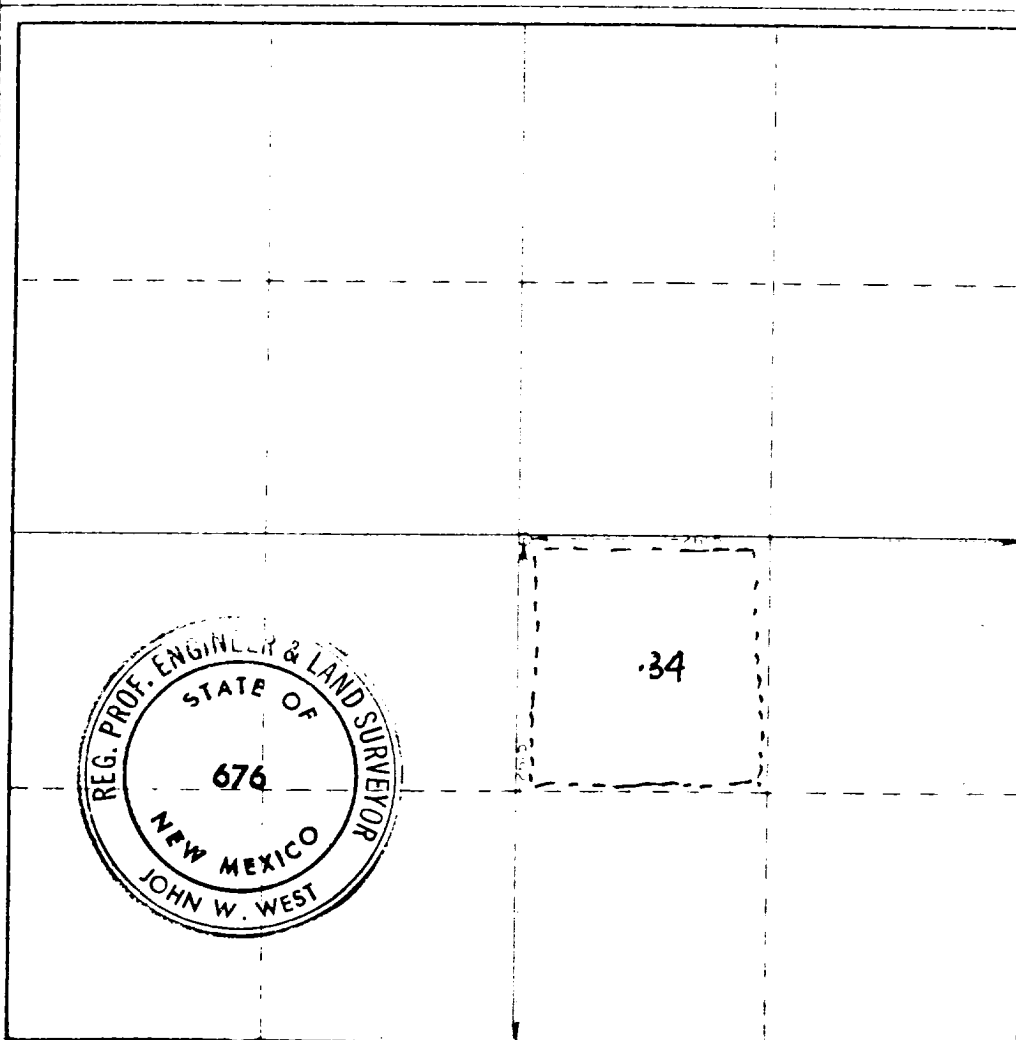
Operator <b>Continental Oil Co.</b>		Lease <b>SEMU Permian</b>		Ac. No. <b>107</b>	
Section <b>J</b>	Range <b>12</b>	Westing <b>20 South</b>	Longing <b>38 East</b>	County <b>Lea</b>	
Section <b>2-15</b>		Range <b>South</b>		Longing <b>2015 East</b>	
Section <b>2536.7</b>	Section <b>Grayburg</b>		Section <b>Skaggs</b>		Section <b>410</b>

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 Commission.



CERTIFICATION

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

*Edmond A. Lee*  
Signature

*Administrative Supervisor*  
Title

*Continental Oil Co.*  
Company

*4-17-79*  
Date

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 12, 1979*

Registered Professional Engineer  
and Land Surveyor

*John W. West*  
Signature

John W. West

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Ronald J. Edson 3239

330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600 6930 7260 7590 7920 8250 8580 8910 9240 9570 9900