

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## 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. <b>NM-0557686</b>	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR <b>CONTINENTAL Oil Company</b>		7. UNIT AGREEMENT NAME <b>SEMUR</b>	
3. ADDRESS OF OPERATOR <b>Box 460, Hobbs, N.M. 88240</b>		8. FARM OR LEASE NAME <b>SEMUR Penn</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface <b>1780' FSL &amp; 1780' FWL OF SEC. 23</b> At proposed prod. zone <b>SAME</b>		9. WELL NO. <b>97</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		10. FIELD AND POOL, OR WILDCAT <b>CASS Penn</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. 23, T. 20S, R. 37E</b>	
16. NO. OF ACRES IN LEASE		12. COUNTY OR PARISH	
17. NO. OF ACRES ASSIGNED TO THIS WELL		13. STATE <b>N.M.</b>	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		19. PROPOSED DEPTH <b>7750'</b>	
20. ROTARY OR CABLE TOOLS <b>Rotary</b>		21. APPROX. DATE WORK WILL START* <b>12-6-76</b>	
22. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>3521' GR</b>		23. PROPOSED CASING AND CEMENTING PROGRAM	

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" NPW	48 #	500'	450 SX Circ.
12 1/2"	8 5/8" New	32 #	4,000'	1850 SX
7 7/8"	5 1/2" New	17 #	7,750'	800 SX

IT IS Proposed to Drill SEMUR Penn No. 97 as a Replacement well for SEMUR Penn No. 3. The well No. 3 is Temporary Abandon Pending Application for P&A.

IT IS Proposed to Drill a Straight Hole to a T.D. of 7750' and complete as a Cass Penn Oil Well.

Expires **3-20-77**

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.

SIGNED

TITLE

ADMIN. SUPERV.

DATE

11-16-76

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

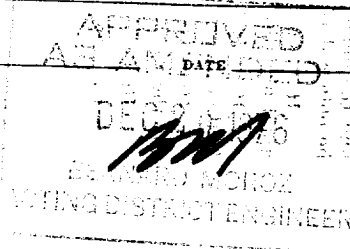
CONDITIONS OF APPROVAL, IF ANY:

TITLE

OCC ORDER NSL-813

USGS-6, NMFL(4), File

\*See Instructions On Reverse Side



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APR 13 1976

U.S. HIGHWAY/EN COMM.  
MOBILE, AL. M.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

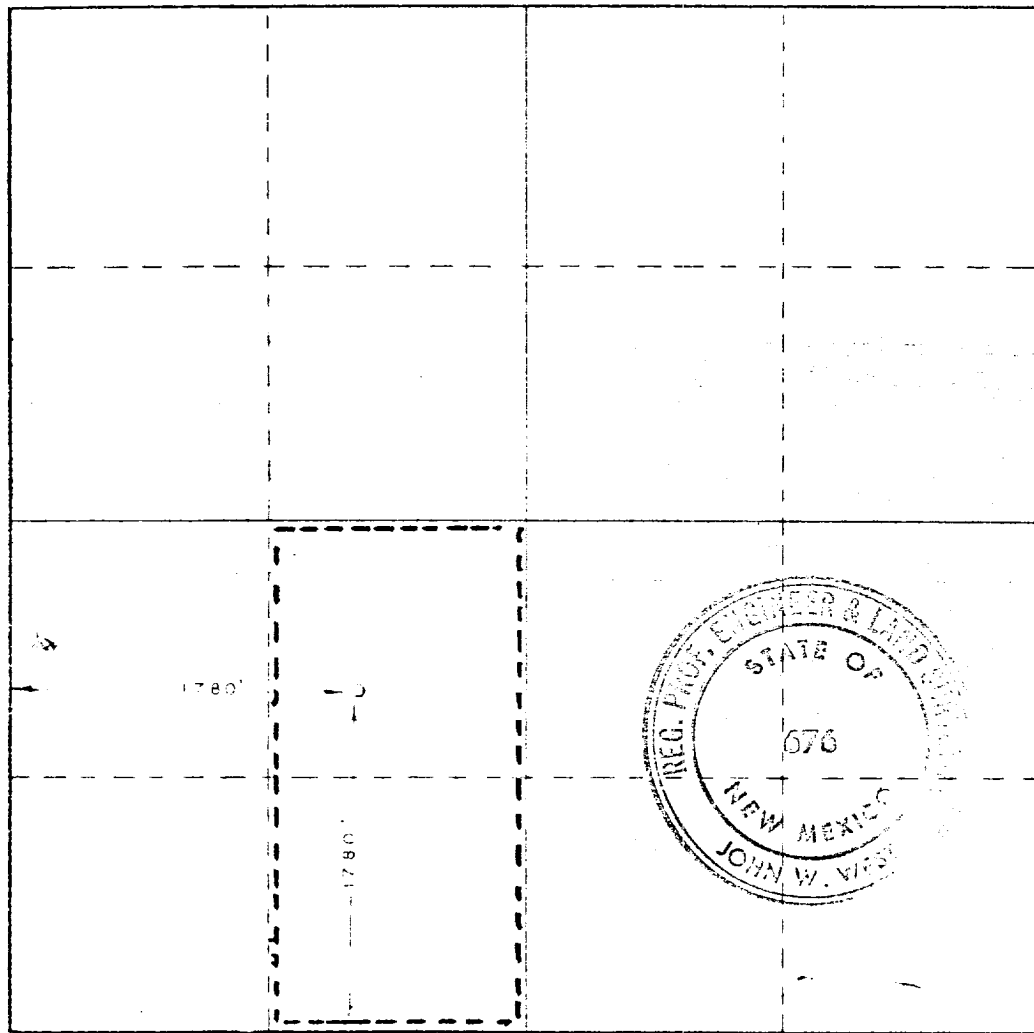
Operator <b>CONTINENTAL OIL COMPANY</b>			Lease <b>SEMU Penn</b>		Well No. <b>97</b>
Grid Letter <b>K</b>	Section <b>23</b>	Township <b>20 South</b>	Range <b>37 East</b>	County <b>Lea</b>	
Actual Wellbore Location of Well: <b>1780</b> feet from the <b>south</b> line and <b>1780</b> feet from the <b>west</b> line					
Ground Level Elev. <b>3521.0</b>	Producing Formation <b>Pennsylvanian</b>		Pool <b>Cass</b>	Dedicated Acreage: <b>80</b> 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 Commission.



CERTIFICATION

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

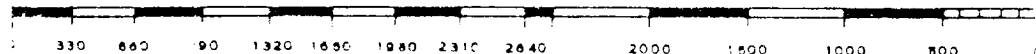
Name  
**Wm. A. Butterfield**  
Position  
**ADMIN. SUPERV.**  
Company  
**Continental Oil Co.**  
Date  
**11-16-76**

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  
**Nov. 4, 1976**

Registered Professional Engineer and/or Land Surveyor

**John W. West**  
Certificate No. **676**



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2-1-76

DE CONSERVATION COM. N. M.

PROPOSED WELL PLAN

SEMU Penn No. 97  
Well Name \_\_\_\_\_  
Location: 1780 FS & W, Sec. 23-20S-37E

Lea Co., N.M.  
County & State  
Elev: est DF 3532

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING <i>New</i>		FRACTURE GRADIENT	FORMATION PRESSURE GRADIENT	MUD	
					SIZE	DEPTH			WEIGHT	TY.
	<i>Quaternary (Surface)</i>									
	Santa Rosa ss wtr. Santa Rosa ss wtr.			17 1/2	13 3/8	500			8.5 9.0	Fresh Water
1	Rustler 1255 - <i>Anhy.</i> Salado 1380 <i>split</i>									
2										
	<i>Base Salado 2500 Split Sandstone</i>									
3	Yates 2640 <i>Sandstone</i> No. 95 had strong water flow at 2855'									
	Queen 3425 <i>Sand Stone - (Gas)</i> Penrose 3550 <i>Sand Stone</i> Grayburg 3720 <i>Dolo</i>		Good Sample shows in San Andres-Suggest adequate log evaluation up to this point (4000)							
4	San Andres 4010 <i>Dolo (O.I + Gas)</i>			12 1/4	8 5/8	4000			9.5 10.0	Bri S & Sal Gel
5	Glorieta 5210 <i>Sand Stone</i>									
	Elinebry 5780 <i>Dolo</i>									
6	Tubb 6290 <i>Sand Stone</i>		GR, CNL, FDC, DLL/DIL TD-4000'							
	Drinkard 6640 <i>Dolo (O.I + Gas)</i>									
7	Abo 6930 <i>Dolo</i>									
	Strawn 7670 <i>Lime Stone (Oil)</i> TD 7750					* Liner-3850' to 7750'				Fresh wat Non-Disp.
				7 7/8	5 1/2	7750		less than 8.5	8.5 9.0	

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SEP 21 1976

CL CONCORDIA  
PROB. H. A.

AM.

Attachment to Form 9-331 C  
Application for Permit to Drill

Continental Oil Company, SEMU Penn No. 97  
1780' FSL and 1780' FWL of Section 23, T-20S, R-37E  
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 as follows:  
  
Santa Rosa SS 500' water  
Salado 2500' salt  
Queen 3425' gas  
San Arches 4010' oil and gas  
Drinkard 6640' oil and gas  
Strawn 7670' oil
4. The proposed casing program is as follows:  
  
Surface - New 13 3/8" 48# H-40 set at 500'  
Intermediate - New 8 5/8" 32# K55 STC set at 4000'  
Production - New 5 1/2" 17# K55 STC set at (Liner 3850' - 7750')
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:  
  
0-500' spud mud                      8.5-9.0 pounds per gallon  
500'-4000' salt gel                9.0-10.0 pounds per gallon  
4000'-7750' fresh water        8.5-9.0 pounds per gallon
7. The auxiliary equipment to be used is:  
  
(1) kelly cocks  
(2) floats at the bit
8. It is proposed to run 2" and 5" GR, CNL, FDC, DLL/DIL Logs from TD to 4000'.
9. No abnormal pressures or temperatures are expected to be encountered in this well.
10. The anticipated starting date for this well is December 6, 1976, with a duration date of approximately twenty five days.

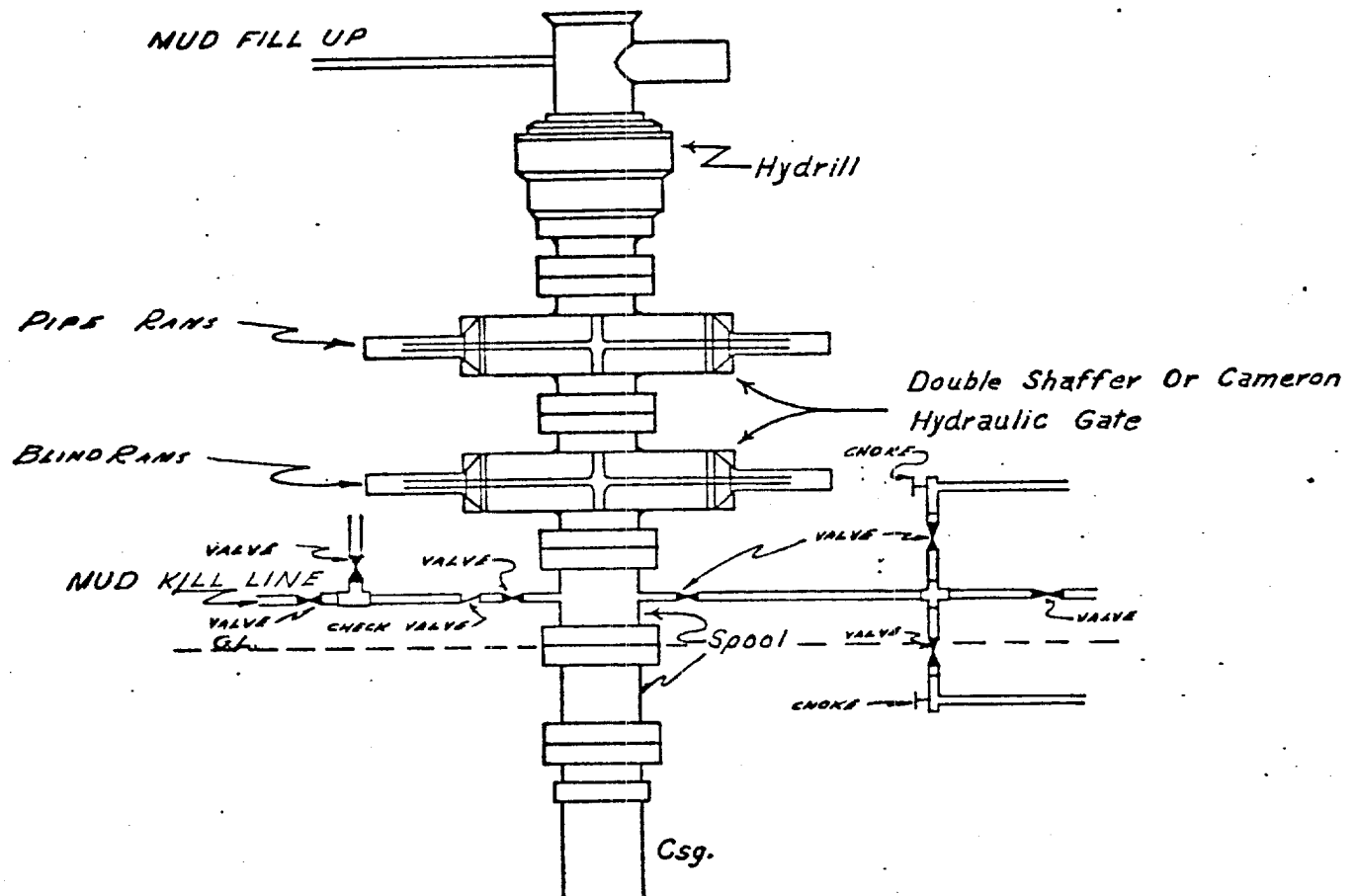
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RESEARCH DIVISION COMPTON  
ALBUQUERQUE, N. M.



C NENTAL OIL COMPANY  
Blow-out Preventer Specifications



API Series 900

NOTE:

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.

SEMu Permit No. 97