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North American Production

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June 13, 1978

Oil Conservation Division (3)
Department of Energy & Minerals
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. J. D. Ramey, Director

Gentlemen:

Administrative approval is requested to authorize water injection into the Warren Unit No. 28 in the Warren Unit McKee Waterflood. The McKee Waterflood Project in the Warren Unit was authorized by Order No. R-5632 issued January 24, 1978 by the Commission. The original order designated Warren Unit Well Nos. 22, 23, 25, and 27 as injectors.

Subsequent analysis and consideration of pressure buildup data from Warren Unit Nos. 27, 28, and SEMU McKee No. 62 have indicated the presence of a permeability barrier running North-South between SEMU McKee No. 62 and Warren Unit Nos. 27 and 28, as indicated on the attached plat. Because of the barrier indicated to the West of Warren Unit No. 27, injection into this well would not contribute to the sweep pattern around the offset producer, SEMU McKee No. 13, but would probably sweep oil northward along the parallel barriers indicated on the plat, past No. 28. We believe that a more efficient sweep of oil can be accomplished by injecting in No. 28 in a line-drive fashion until No. 27 has flooded out, at which time it may be converted to injection.

Our application for approval of this waterflood project included a request for the establishment of an administrative procedure for adding and substituting injection wells. This change in proposed injectors will prevent waste and improve the sweep of oil along the East side of the project. Well No. 28 is an interior well in our Warren Unit and is not offset by any other operator.



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Attached is a plat showing the changed injection pattern and the indicated permeability barrier, a log section of the proposed injector, Warren Unit No. 28, and a diagrammatic sketch of the proposed injection well No. 28 including pertinent data as requested by Rule 701-B. We will appreciate your consideration of this request at your earliest convenience, so that we may proceed with the initiation of this waterflood project.

Respectfully submitted,

CONTINENTAL OIL COMPANY

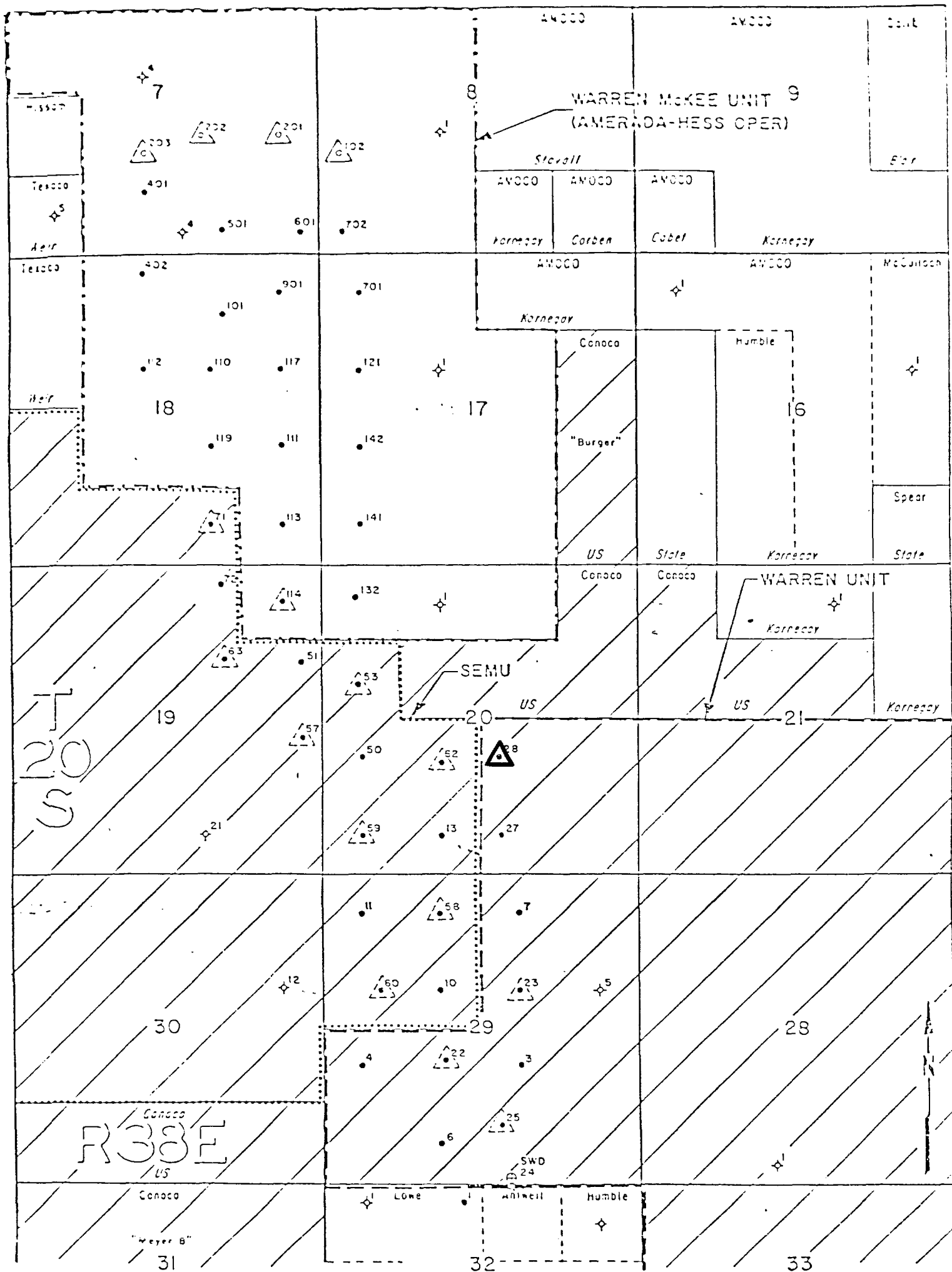
A handwritten signature in cursive script, appearing to read "E. C. Osage".

HAI/jj

Enc

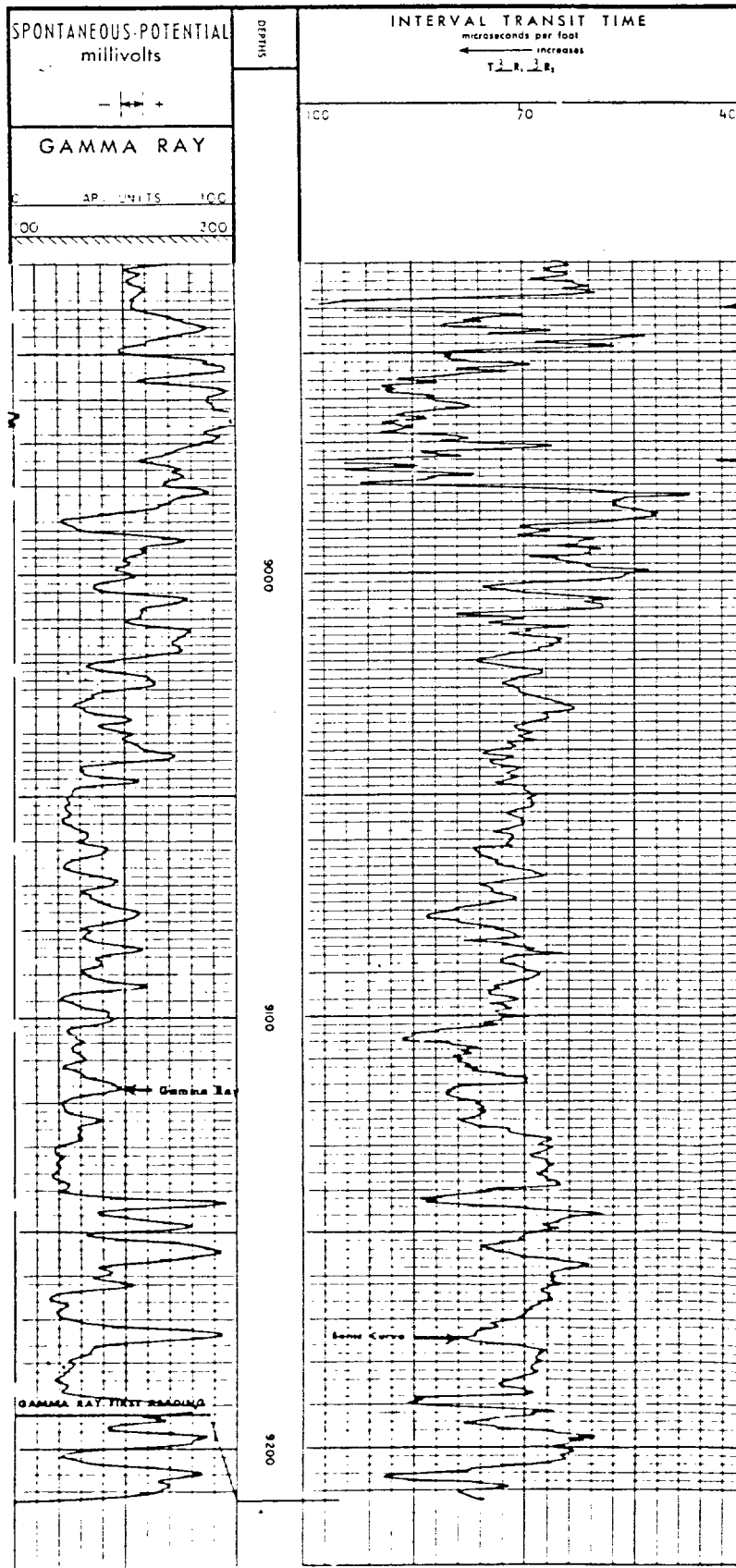
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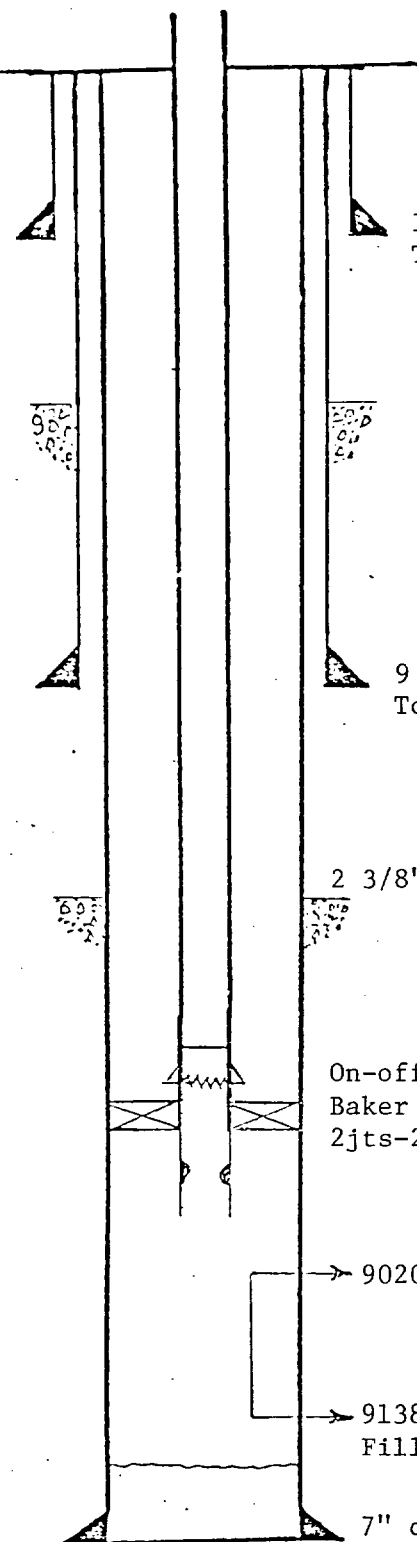
J. W. Kellahin, Santa Fe



CONOCO	
PRODUCTION DEPARTMENT	HOBBS DIVISION
LEA COUNTY, NEW MEXICO	
WARREN McKEE POOL	
SCALE 0 1000 2000'	

SCHLUMBERGER		SONIC LOG	
COUNTY LEA FIELD or LOCATION WARREN MC KEE WELL FEDERAL 29 COMPANY SCHLUMBERGER	COMPANY SCHLUMBERGER OIL COMPANY WELL WARREN MC KEE FEDERAL 29 FIELD WARREN MC KEE LOCATION SEC. 20, 20S-29E		Other Surveys RES. ME. Location of Well 1320' FROM S/L 2310' FROM E/L
	COUNTY LEA STATE NEW MEXICO		1563.05' Elevation: K.B.: 3556 D.F.: 3555 or G.L.: 3554
	Log Depths Measured From *B 13 Ft. above L.L.		
	RUN No. 29E Date 10-23-61 First Reading 3213 Last Reading 0 Feet Measured 3213 Cvg. Schlum. 23.4 Cvg. Driller 24.8 Depth Reached 3213 Bottom Driller 3213 Mud Nat. CHLM Dens. 1.0 Visc. 40 Mud Resist. (M) 1.25 @ 70 F Res. BHT 1.05 @ 118 F pH 7 Wire Loss 2.4 CC 30 min Rmt (M) 1.27 @ 70 F Bit Size 8"		
	Spacing: T R R 2916 To 3213 T R R To Opr. Rig Time 6 HOURS Truck No. 2527-HOERS Recorded By ROUSH Witness PICKERING		





13 3/8" casing set at 265' w/300 sx. of common cement.
Top of cement is at surface.

9 5/8" casing set at 2998' w/825 sx. of mixed cement.
Top of cement is at 1100' (temp. survey).

2 3/8" tubing set at 8920'.

On-off sealing connector.

Baker Lok-set Packer set at 8920'

2jts-2 3/8" tailpipe, 1.78" Model "R" nipple, one jt. below pkr.

→ 9020' Top of perfs.

→ 9138' Bottom of perfs.

Fill to 9150'

7" casing set at 9217' w/550 sx. mixed cement. Top of cement
is at 5950' (temp. survey). Total depth 9218'.

McKee Perfs.

9020'-22', 27'-29', 43'-45', 48'-54', 63'-66',
72'-78', 88'-94', 9128'-38', w/2JSPF.

Warren McKee No. 28

Warren McKee Simpson Pool

1980' FSL & 2310' FEL of Sec. 20, T20S, R38E

Elevation - 3566' K.B.

6/8/78 - BEE

OIL CONSERVATION COMMISSION
Hobbs DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE June 29, 1978

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX X _____
Proposed PMX _____

Gentlemen:

I have examined the application dated _____
for the Continental Oil Co. Warren McKee Unit #28-J 20-20-38
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,

