C O N T I N E N T A L O I L C O M P A N Y

P. O. Box 460
Hobbs, New Mexico
April 1, 1966

New Mexico Oil Conservation Commission (3)
P. O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr., Secretary-Director

CONTINENTAL OIL COMPANY REQUEST FOR ADMINISTRATIVE APPROVAL TO EXPAND THE MCA UNIT SECONDARY RECOVERY PROJECT TO INCLUDE ALL OF SECTIONS 20 AND 29, TOWNSHIP 17 SOUTH, RANGE 32 EAST, LEA COUNTY, NEW MEXICO

Gentlemen:

The New Mexico Oil Conservation Commission Order R-2403, dated December 31, 1962, approved the Continental Oil Company-operated MCA Unit secondary recovery project consisting of pressure maintenance by water injection into six (6) Maljamar Pool wells (Grayburg-San Andres), and set forth procedures for obtaining administrative approval for expansion of the MCA Unit secondary recovery project.

The New Mexico Oil Conservation Commission Administrative Order WFX No. 19, dated April 15, 1965, authorized Continental Oil Company to expand the initial central water injection area to include an additional thirteen (13) injection wells in an area described as the south half of the south half of Section 16, and all of Sections 21 and 28, Township 17 South, Range 32 East, Lea County, New Mexico.

Continental Oil Company, as operator of the MCA Unit, respectfully requests administrative approval under the provisions of Order No. R-2403 and Rule 701-B, to expand the present MCA Unit secondary recovery project in the south half of the south half of Section 16, and all of Sections 21 and 28, Township 17 South, Range 32 East, Lea County, New Mexico, to include all of Sections 20 and 29, Township 17 South, Range 32 East, Lea County, New Mexico. Under the proposed expansion, it is proposed to convert the following sixteen (16) MCA Unit

wells to water injection:

Well No.	Location
22	Unit D, Sec. 20-17S-32E
24	Unit B, Sec. 20-17S-32E
48	Unit H, Sec. 20-17S-32E
50	Unit F, Sec. 20-17S-32E
62	Unit L, Sec. 20-17S-32E
65	Unit J, Sec. 20-17S-32E
94	Unit P, Sec. 20-17S-32E
97	Unit N, Sec. 20-17S-32E
109	Unit D, Sec. 29-17S-32E
111	Unit B, Sec. 29-17S-32E
154	Unit H, Sec. 29-17S-32E
157	Unit F, Sec. 29-17S-32E
169	Unit L, Sec. 29-17S-32E
171	Unit J, Sec. 29-17S-32E
211	Unit P, Sec. 29-17S-32E
213	Unit N, Sec. 29-17S-32E

In conjunction with the expansion, it is proposed to discontinue gas injection in the following MCA Unit wells:

Well No.	Location
64	Unit F, Sec. 20-17S-32E
96	Unit N, Sec. 20-17S-32E
156	Unit F, Sec. 29-17S-32E
174	Unit E, Sec. 28-17S-32E
212	Unit N, Sec. 29-17S-32E

In support of this request and as required by Rule 701-B, the following data is attached:

1. A plat showing location of the proposed injection wells and location of all wells within a radius of two miles from the injection wells and formations from which wells are producing or have produced. Lessees of record are indicated on the plat.
2. Logs of four of the proposed injection wells which are available.
3. A schematic drawing of all proposed injection wells, including casing depths, cement tops, producing interval, and proposed tubing and packer setting depths, and a table summarizing the water injection well data.

At present, a total of approximately 14,600 BWPD is being injected into the 17 wells in the MCA Unit Central Waterflood area. Upon completion of the proposed expansion, it is planned to inject a total of approximately 28,000 BWPD in the 33 injection wells in the MCA Unit Central Waterflood Area. Exact volumes to be injected in each well will be dependent upon net producing interval open and injection pressures encountered.

The casing pattern of these wells is influenced by the fact that in this particular area there are no fresh water sands.

Water supply for the proposed expansion will be obtained from the MCA Unit Water Leases now furnishing water for the present secondary recovery project.

A copy of this letter with attached data is being forwarded by certified mail to the State Engineer's Office, Box 1079, Santa Fe, New Mexico, and to the offset operators.

Your consideration and approval of the proposed expansion is respectfully requested.

Yours very truly,

LPT-JS

By Certified Mail:

U. S. Geological Survey (3)
P. O. Box 1857
Roswell, New Mexico

Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico

State Engineer
P. O. Box 1079
Santa Fe, New Mexico

Kersey and Company
P. O. Box 316
Artesia, New Mexico

Cities Service Oil Company
P. O. Box 69
Hobbs, New Mexico

By Regular Mail:

NMOCC-Hobbs JWK GW RGP

MCA UNIT
WATER INJECTION WELL DATA

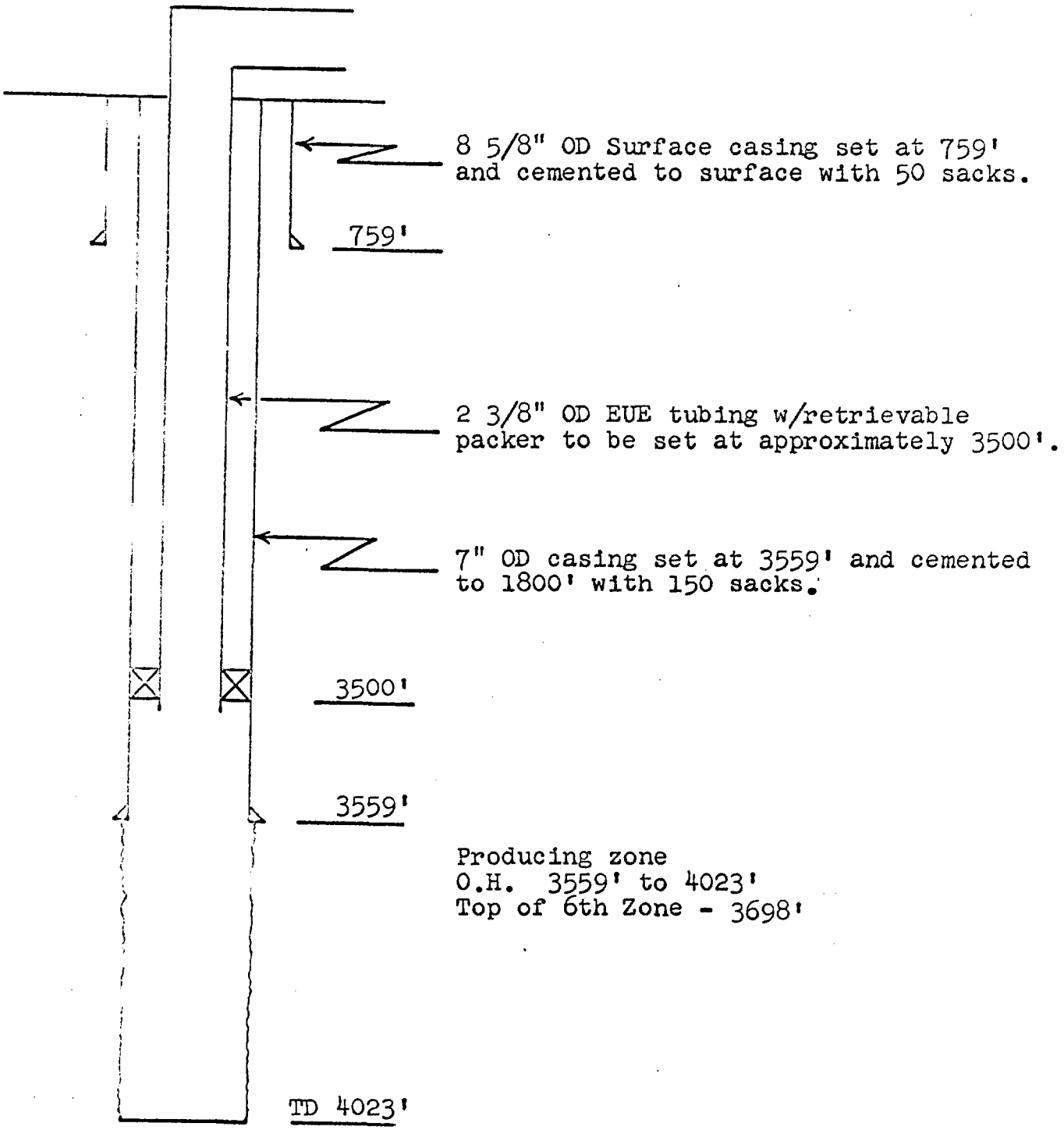
Lease & Well No.	Total Depth and/or PBD	Surface Casing OD	Surface Casing Depth	Surface Casing Sacks Cement	Surface Casing Cement Top	Intermediate Casing OD	Intermediate Casing Depth	Intermediate Casing Sacks Cement	Intermediate Casing Cement Top	Production Casing OD	Production Casing Depth	Production Casing Sacks Cement	Production Casing Cement Top	Producing Interval
MCA #22	4023'	8 5/8"	759'	50	Surface	None				7"	3559'	150	1800'-Est.	3559'-4023' (OH)
#24	4075'	8 5/8"	848'	50	Surface	None				7"	3659'	150	1900'-Est.	3659'-4075' (OH)
#48	4083'	10"	794'	25	Surface	None				6 5/8"	3670'	150	1900'-Est.	3670'-4083' (OH)
#50	4046'	8 5/8"	810'	50	Surface	None				7"	3461'	150	1700'-Est.	3461'-4046' (OH)
#62	3990'	8 5/8"	806'	50	Surface	None				7"	3499'	150	1700'-Est.	3499'-3990' (OH)
#65	4045'	12"	40'	NR	NR	None				7"	3565'	350*	Surface	3565'-4045' (OH)
#94	4090'	12"	20'	NR	NR	None				7"	3600'	360**	Surface	3600'-4090' (OH)
#97	4027'	8 5/8"	760'	50	Surface	None				7"	3528'	150	1900'-Est.	3528'-4027' (OH)
#109	3977'	8 5/8"	873'	50	Surface	None				7"	3493'	150	1700'-Est.	3493'-3977' (OH)
#111	4020'	8 5/8"	1922'	100	Surface	None				7"	3541'	150	1800'-Est.	3541'-4020' (OH)
#154	4082'/4038'	8 5/8"	860'	50	Surface	None				7"	3560'	100	2500'-Est.	3560'-4038' (OH)
#157	4031'	8 5/8"	910'	50	Surface	None				7"	3492'	100	2500'-Est.	3492'-4031' (OH)
#169	3935'	8 5/8"	990'	50	Surface	None				7"	3488'	100	2500'-Est.	3488'-3935' (OH)
#171	3950'	8 5/8"	1010'	50	Surface	None				7"	3505'	100	2500'-Est.	3505'-3950' (OH)
#211	4013'	8 5/8"	1059'	50	Surface	7"	2115'	NR	NR	5"	3593'	450	Surface	3593'-4013' (OH)
#213	4034'/4010'	8 5/8"	1067'	50	Surface	None				7"	3547'	100	2500'-Est.	3547'-4010' (OH)

*Cemented w/150 sacks through shoe and w/200 sacks through perf. at 750'.

**160 sacks through shoe and 200 sacks through DV tool at 856'.

2-22-66

WATER INJECTION WELL DATA
MCA UNIT NO. 22
ELEV.-D.F. 3964'



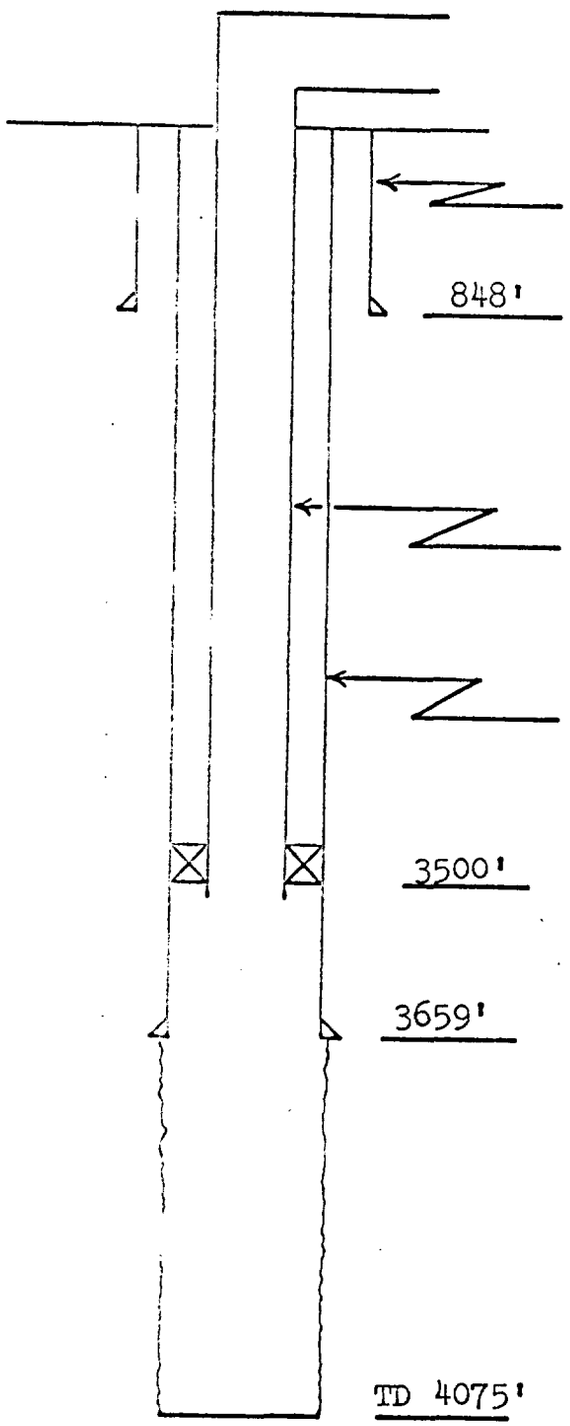
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3500'.

FUTURE WORK

1. Clean out to TD if required.

WATER INJECTION WELL DATA
MCA UNIT NO. 24
ELEV.-D.F. 4014'



8 5/8" OD surface casing set at 848' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'

7" OD casing set at 3659' and cemented to 1900' with 150 sacks.

Producing zone
O.H. 3659' to 4075'
Top of 6th Zone 3715'

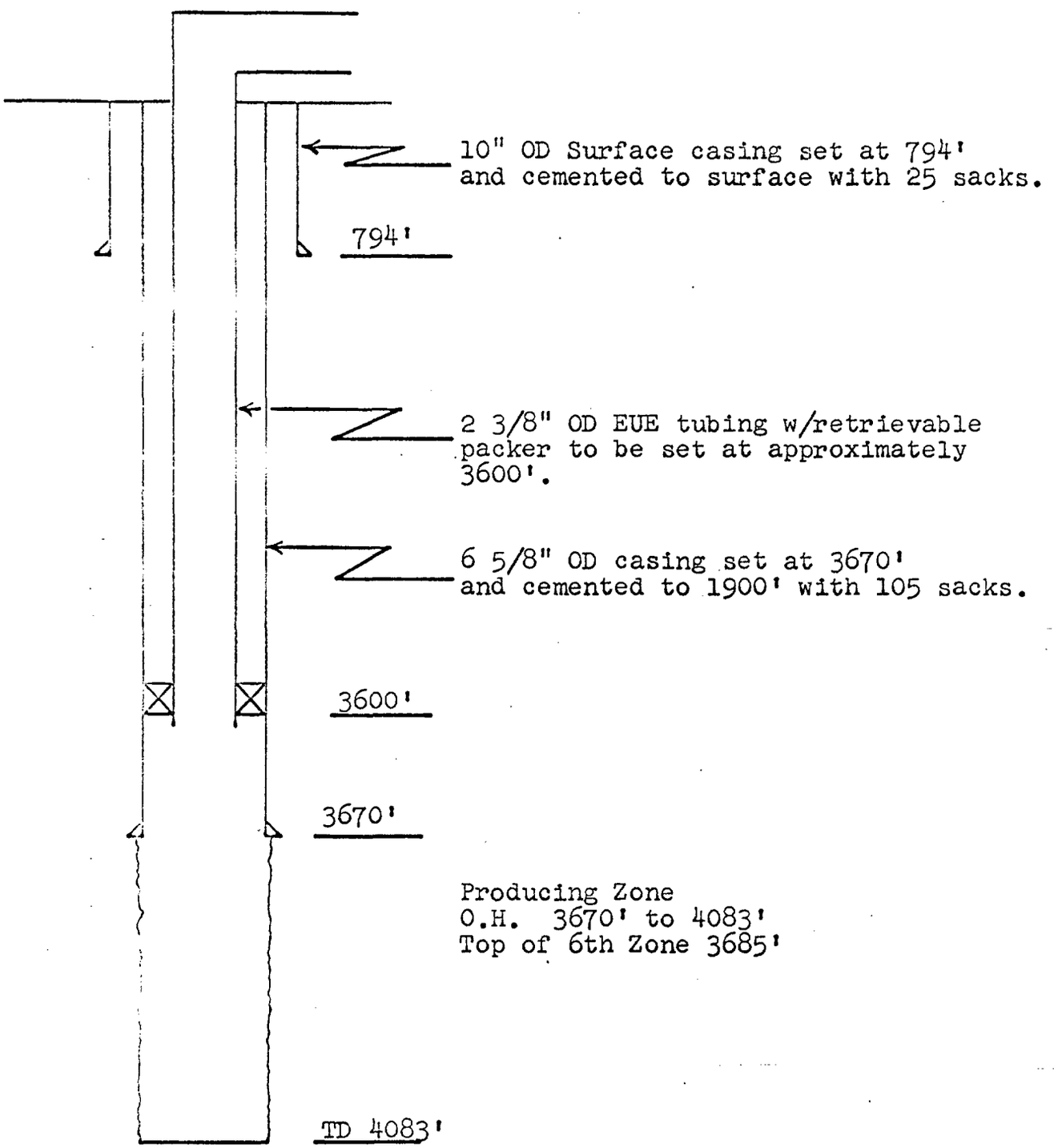
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing w/packer to be set at 3500'.

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 48
ELEV.-D.F. 4002'



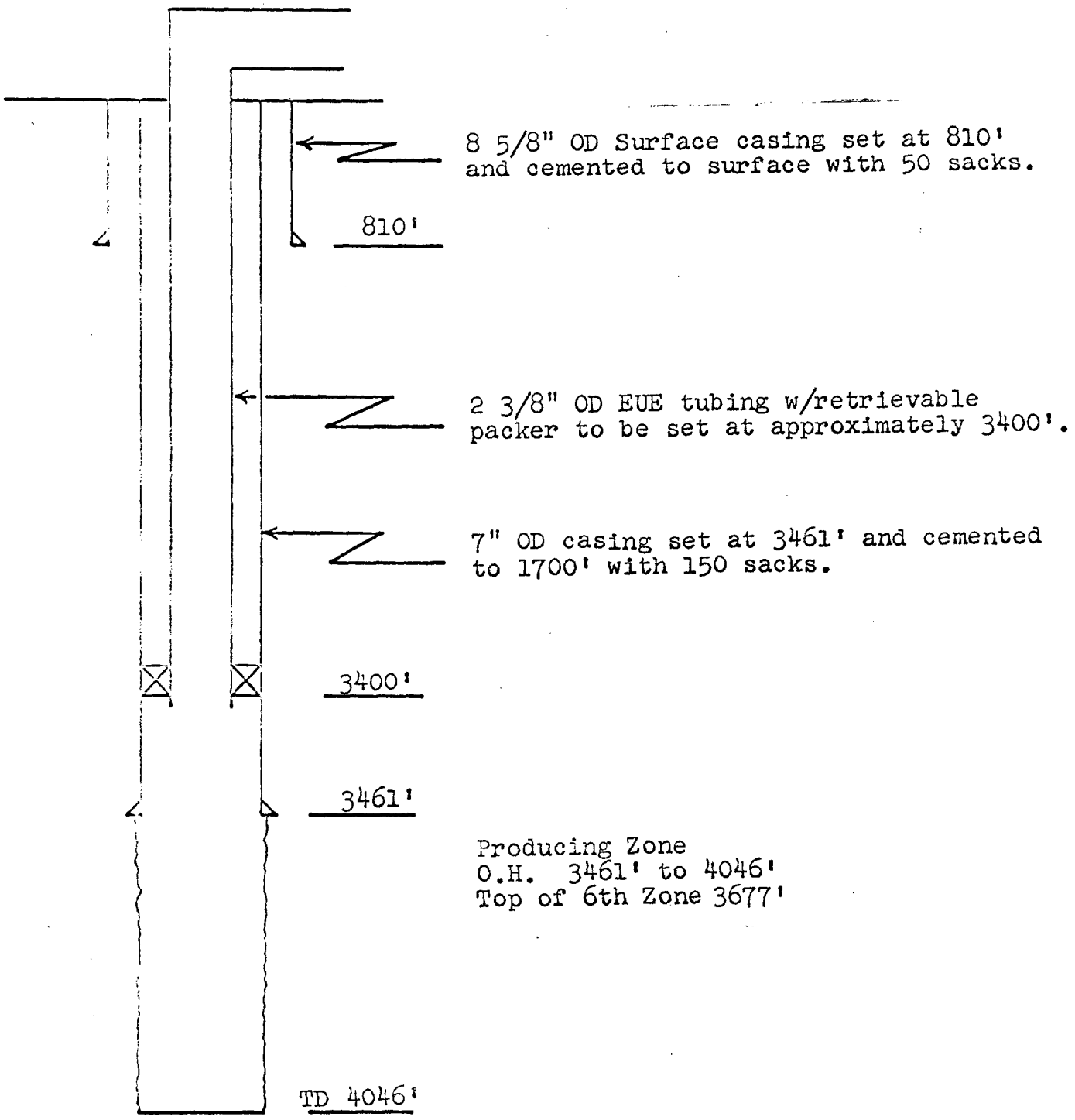
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3600'

FUTURE WORK

1. Clean out to TD if required.

WATER INJECTION WELL DATA
MCA UNIT NO. 50
ELEV.-D.F. 3982'



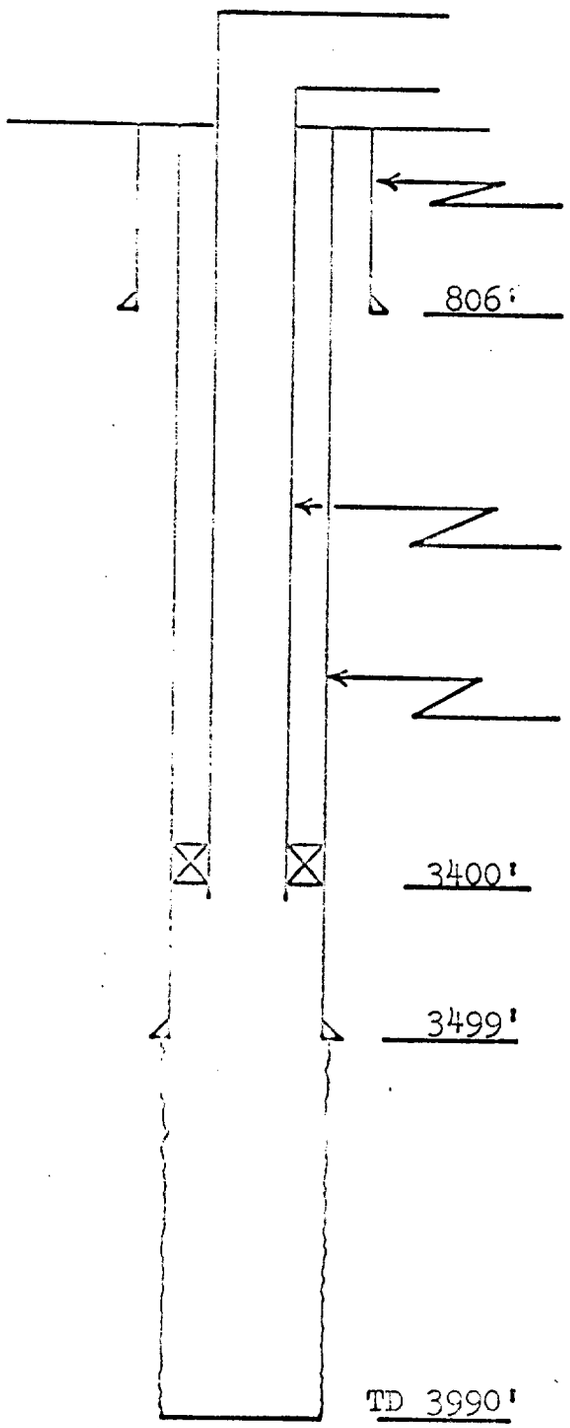
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'.

FUTURE WORK

1. Clean out to TD if required.

WATER INJECTION WELL DATA
MCA UNIT NO. 62
ELEV.-D.F. 3959'



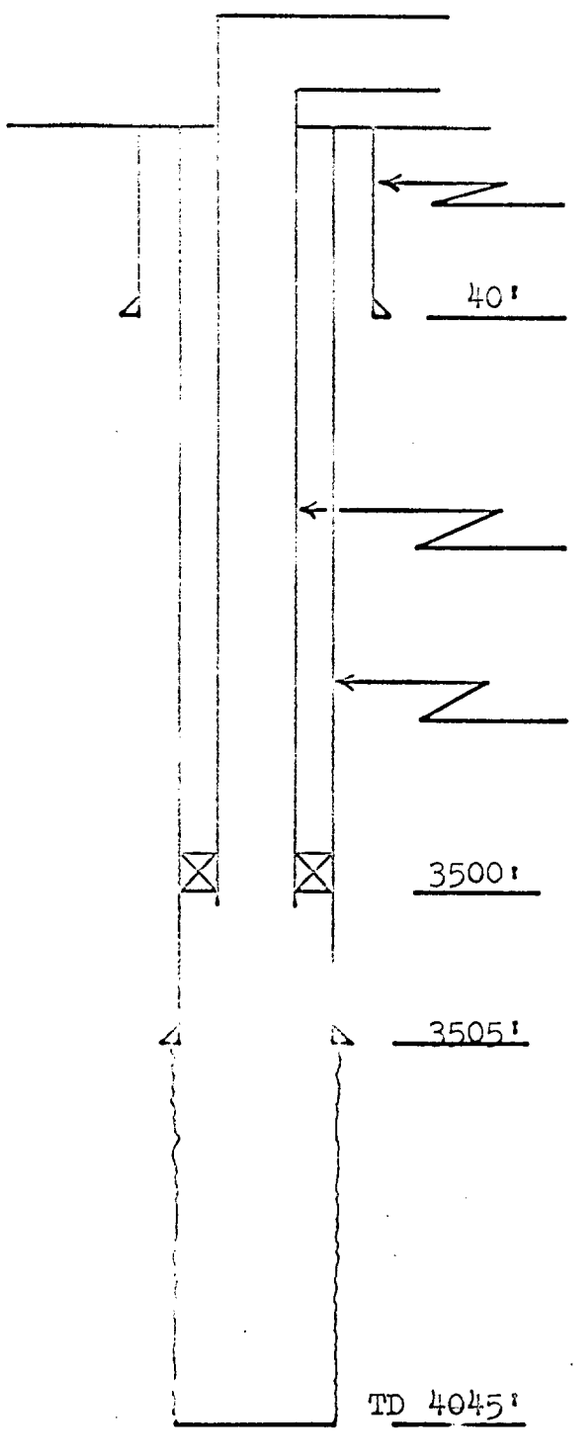
PROPOSED PROCEDURE

1. Tag bottom & tally out.
2. Run tubing w/packer to be set at 3400'

FUTURE WORK

1. Clean out and drill out to new TD of 4100'
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 65
ELEV.-D.F. 3999'



12" O.D. Surface casing set at 40' and cemented to NR with NR sacks

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'

7" OD casing set at 3565' and cemented to surface with 350 sacks. (150 sacks through shoe and 200 sacks through perforations at 750'.)

Producing Zone
O.H. 3565' to 4045'
Top of 6th Zone 3716'

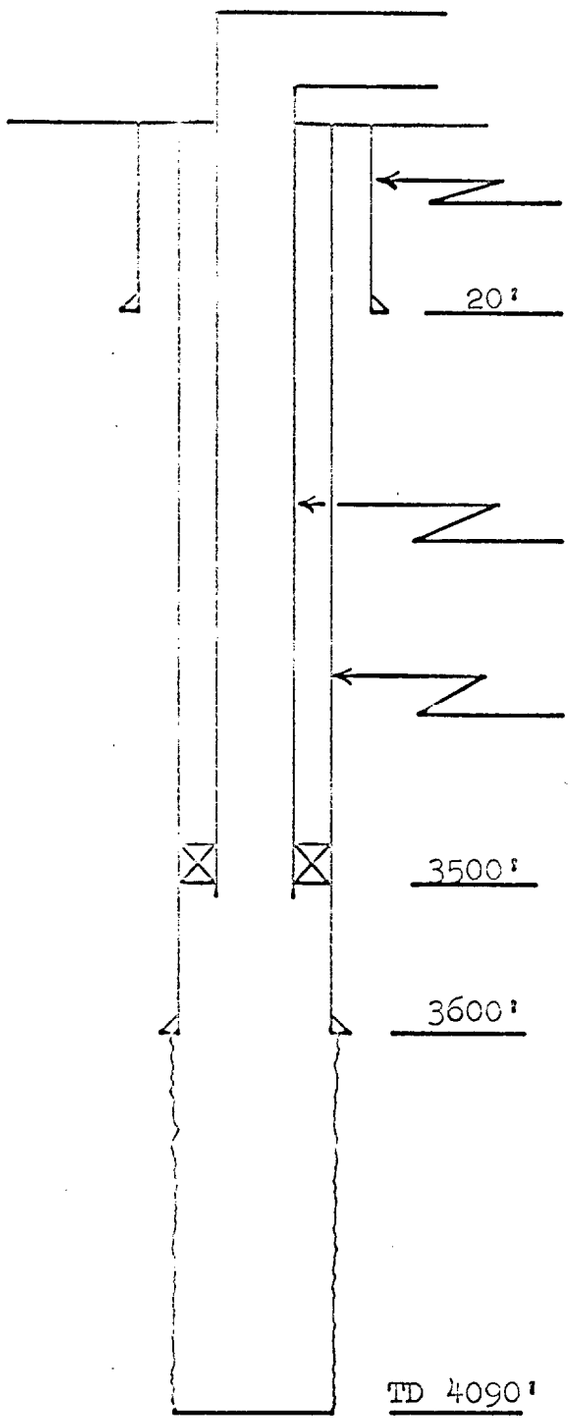
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3500'.

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 94
ELEV.-D.F. 3972'



12" OD surface casing set at 20' and cemented to NR with NR sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'.

7" OD casing set at 3600' and cemented to surface with 360 sacks. (160 sacks through shoe and 200 sacks through DV tool at 856')

Producing Zone
O.H. 3600' to 4090'
Top of 6th Zone 3655'

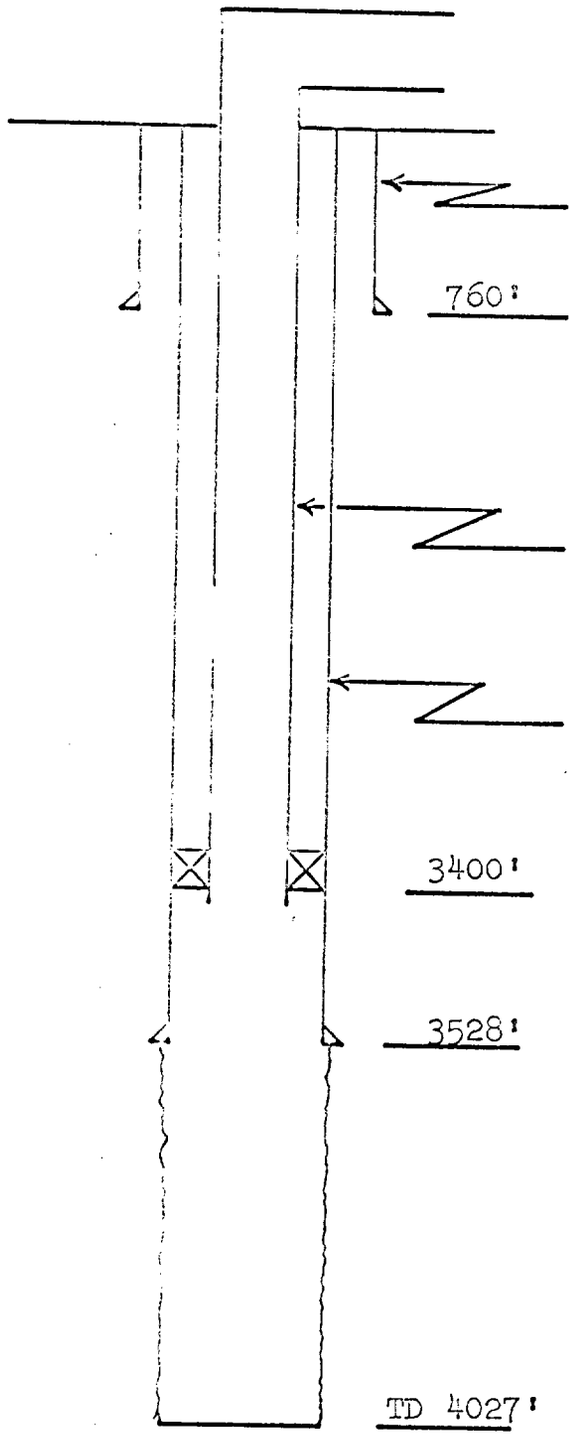
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3500'

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 97
ELEV.-D.F. 3957'



8 5/8" OD surface casing set at 760' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'

7" OD casing set at 3528' and cemented to 1900' with 150 sacks.

Producing Zone
O.H. 3528' to 4027'
Top of 6th Zone 3597'

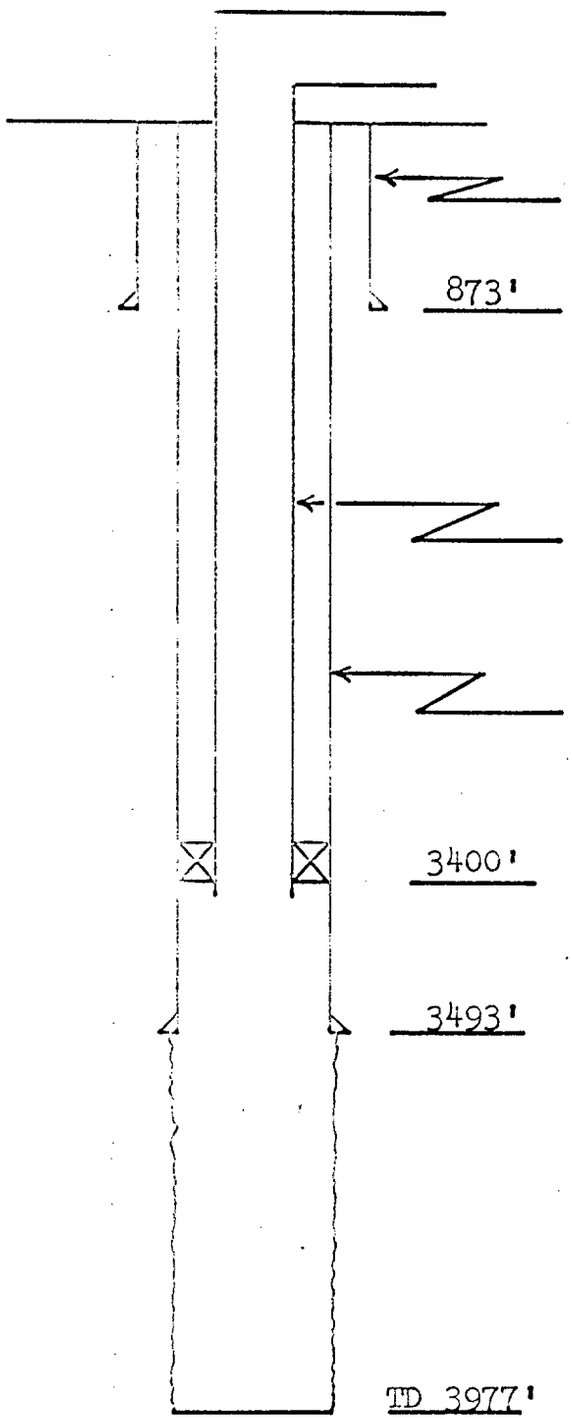
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 109
ELEV.-D.F. 3937'



8 5/8" OD Surface casing set at 873' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3400'

7" OD casing set at 3493' and cemented to 1700' with 150 sacks.

Producing Zone
O.H. 3493' to 3977'
Top of 6th Zone 3666'

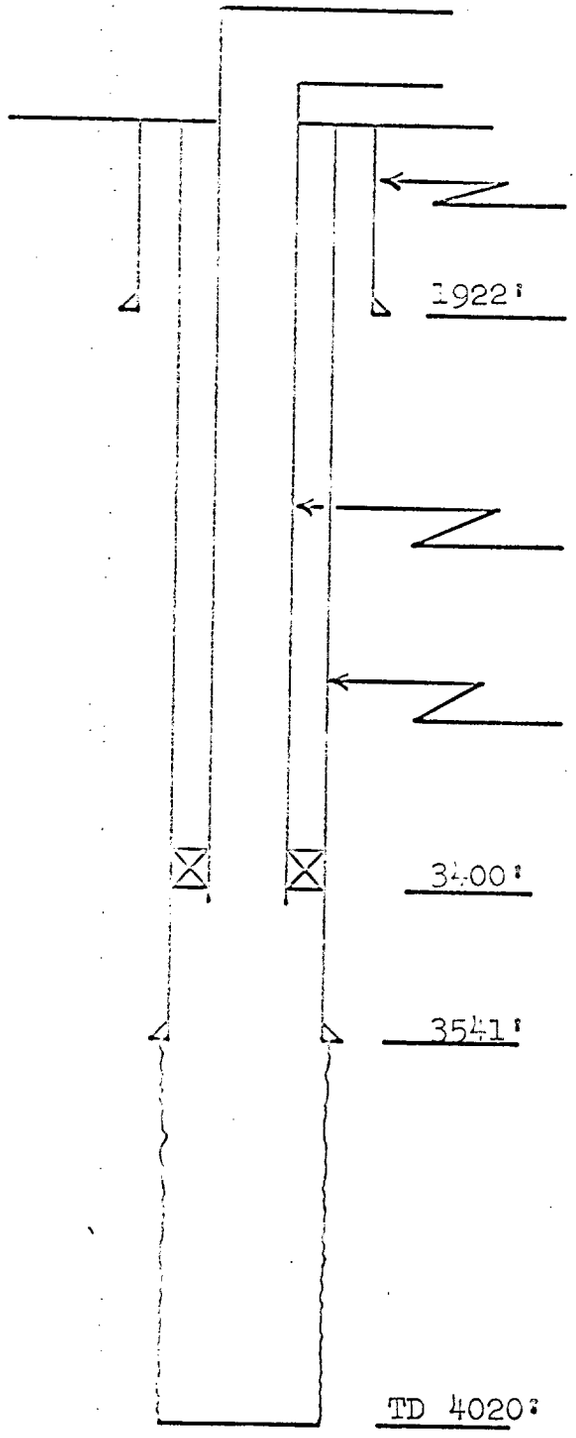
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 111
ELEV.-D.F. 3969'



8 5/8" OD surface casing set at 1922' and cemented to surface with 100 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3400'.

7" OD casing set at 3541' and cemented to 1800' with 150 sacks.

Producing Zone
O.H. 3541' to 4020'
Top of 6th Zone 3690'

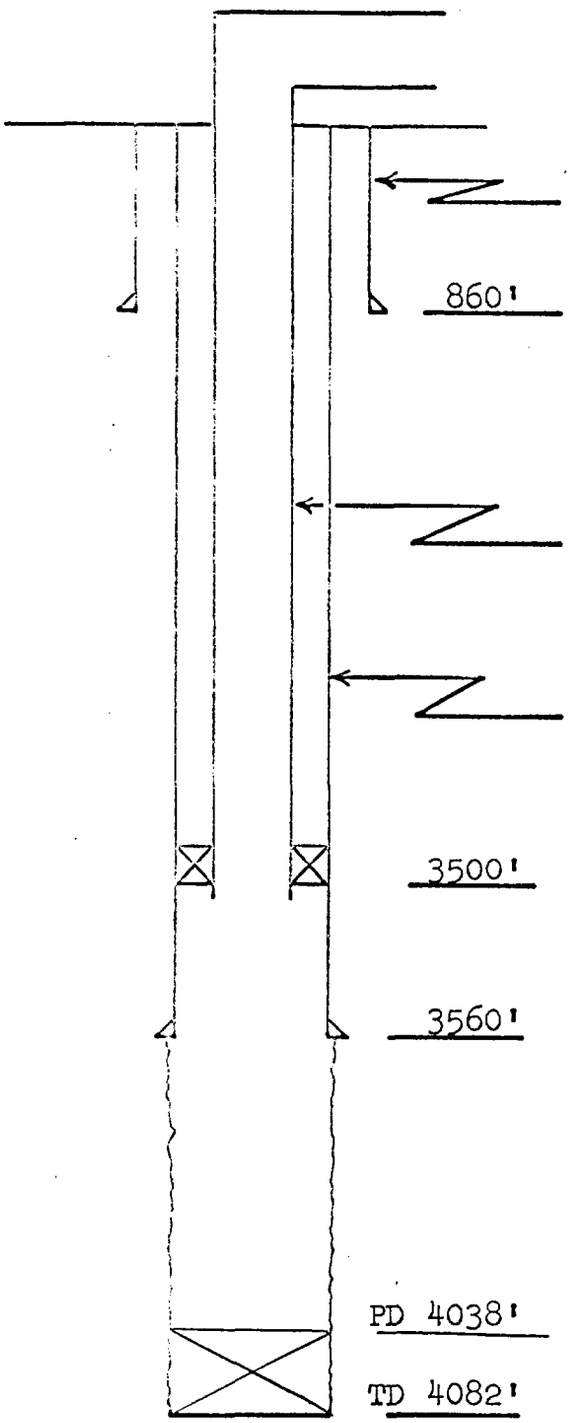
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'.

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 154
ELEV.-D.F. 3954'



8 5/8" OD surface casing set at 860' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'.

7" OD casing set at 3560' and cemented to 2500' with 100 sacks.

Producing Zone
O.H. 3560' to 4038'
Top of 6th Zone 3720'

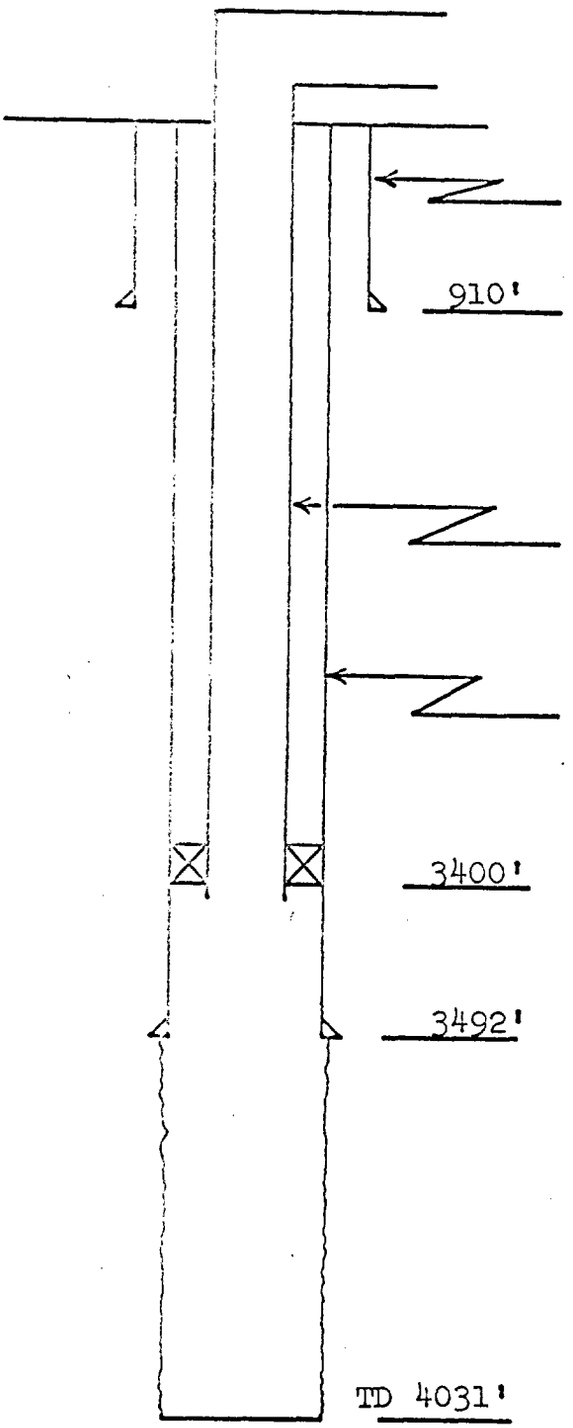
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3500'

FUTURE WORK

1. Clean out to PD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 157
ELEV.-D.F. 3943'



8 5/8" OD surface casing set at 910' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3400'.

7" OD casing set at 3492' and cemented to 2500' with 100 sacks.

Producing Zone
O.H. 3492' to 4031'
Top of 6th Zone 3735'

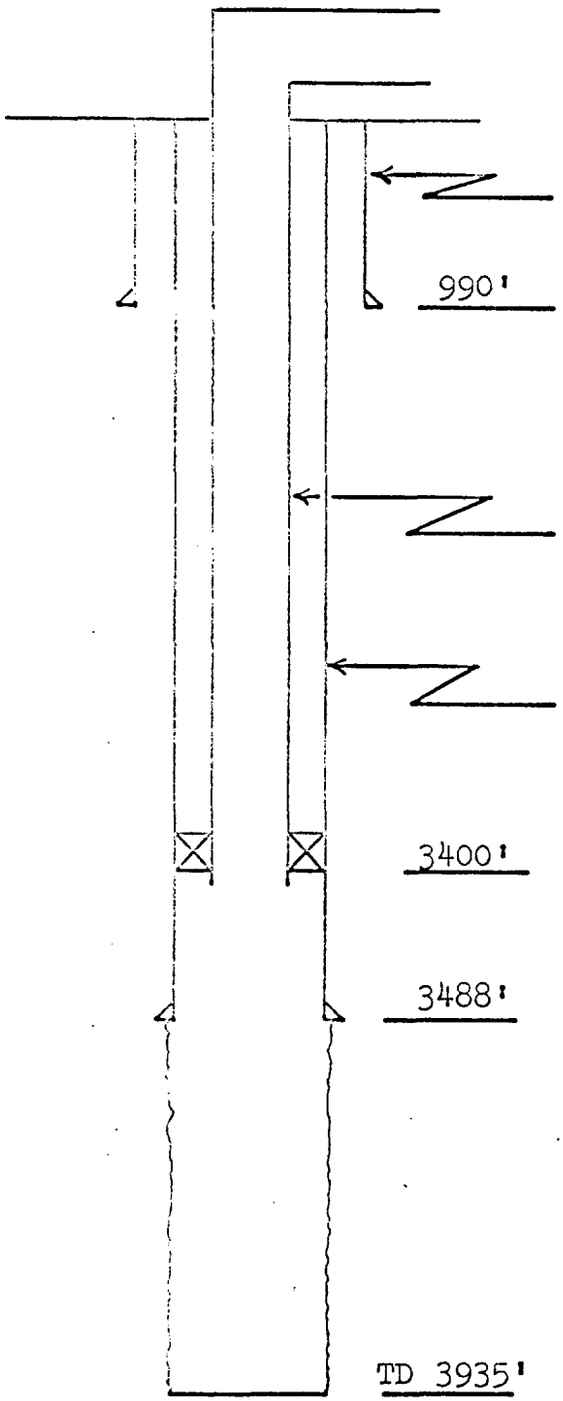
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'.

FUTURE WORK

1. Clean out to TD if required.

WATER INJECTION WELL DATA
MCA UNIT NO. 169
ELEVA.-D.F. 3912'



8 5/8" OD Surface casing set at 990' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3400'.

7" OD casing set at 3488' and cemented to 2500' with 100 sacks.

Producing Zone
O.H. - 3488' to 3935'
Top 6th Zone 3810'

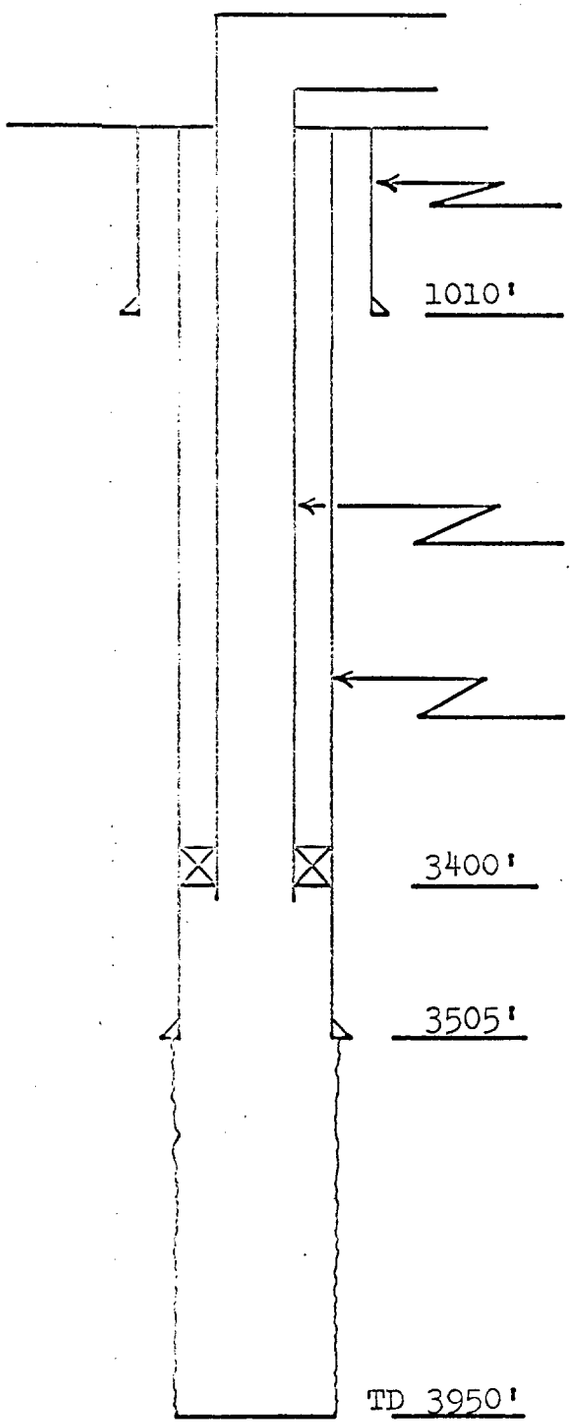
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'

FUTURE WORK

1. Clean out and drill out to new TD of 4100'
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 171
ELEV.-D.F. 3931'



8 5/8" OD Surface casing set at 1010' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3400'.

7" OD casing set at 3505' and cemented to 2500' with 100 sacks.

Producing Zone
O.H. 3505' to 3950'
Top of 6th Zone 3804'

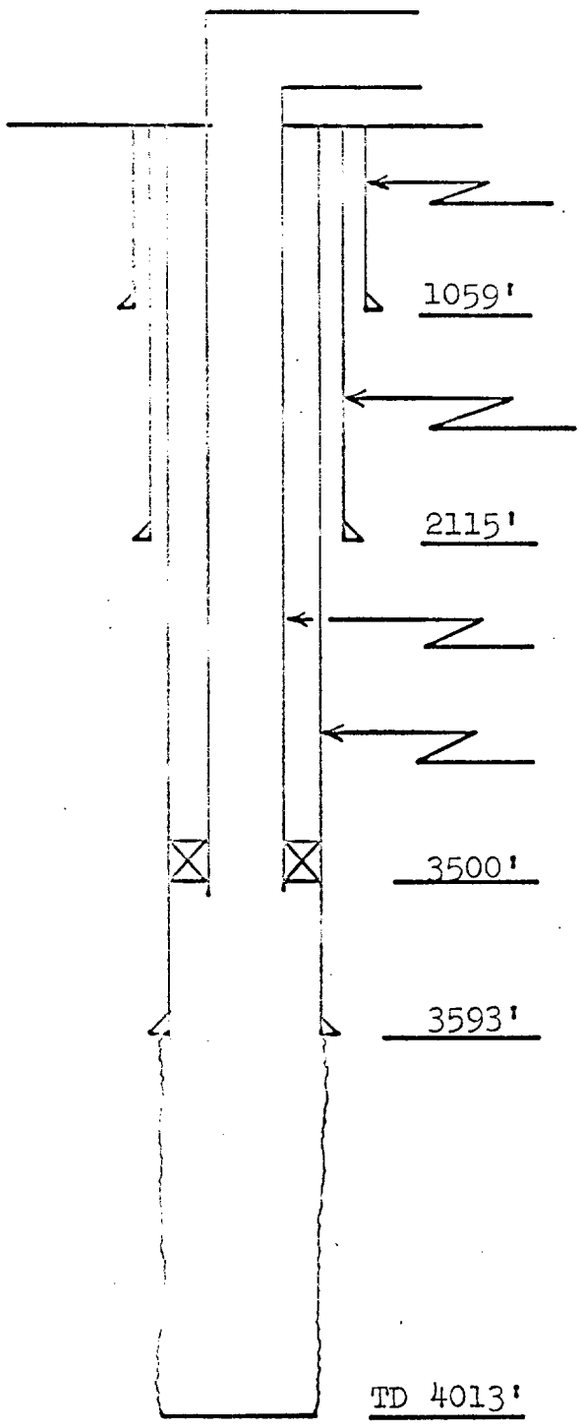
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3400'.

FUTURE WORK

1. Clean out and drill out to new TD of 4135'.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 211
ELEV.-D.F. 3932'



8 5/8" OD Surface casing set at 1059' and cemented to surface with 50 sacks.

7" OD casing set at 2115' and mudded (No record of amount mud)

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'.

5" OD casing set at 3593' and cemented to surface with 450 sacks.

Producing Zone
O.H. 3593' to 4013'
Top of 6th Zone 3848'

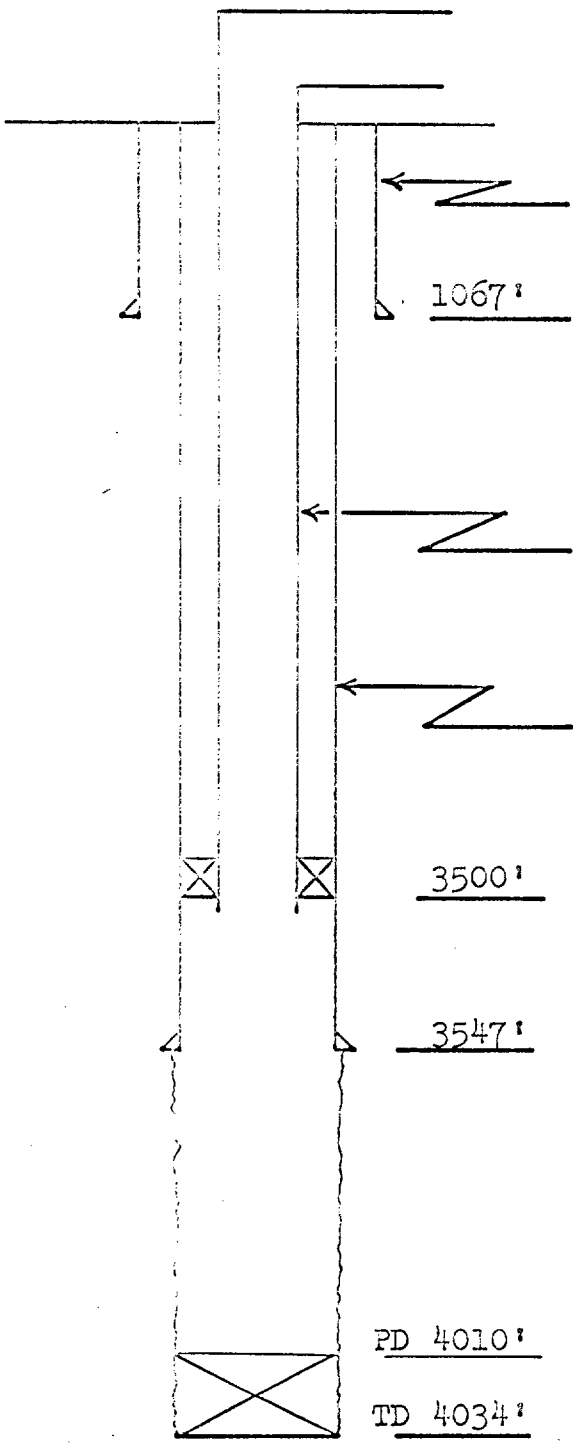
PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubing with packer to be set at 3500'.

FUTURE WORK

1. Clean out to TD if required.
2. Run gamma ray-neutron open hole log.

WATER INJECTION WELL DATA
MCA UNIT NO. 213
ELEV.-D.F. 3918'



8 5/8" OD Surface casing set at 1067' and cemented to surface with 50 sacks.

2 3/8" OD EUE tubing w/retrievable packer to be set at approximately 3500'.

7" OD casing set at 3547' and cemented to 2500' with 100 sacks.

Producing Zone
O.H. 3547' to 4010'
Top of 6th Zone 3900'

PROPOSED PROCEDURE

1. Tag bottom and tally out.
2. Run tubingwith packer to be set at 3500'.

FUTURE WORK

1. Clean out to P.D. if required.
2. Run gamma ray-neutron open hole log.

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

April 11, 1966

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Continental Oil Company which seeks approval to expand the MCA Unit secondary recovery project to include all of Sections 20 and 29, Township 17 South, Range 32 East. The application also proposes to convert 16 MCA Unit wells to water injection and proposes to discontinue gas injection into 5 MCA Unit wells.

After reviewing the application and the attached exhibits, it appears that the plan will adequately protect the fresh waters which may exist in the area. Therefore, this office offers no objection to the granting of the application, provided, the packers on the end of the tubing are set well below the top of the cement in the annulus behind the production casing.

FEI/ma
cc-Jason Kellahin
F. H. Hennighausen

Yours truly,

S. E. Reynolds
State Engineer

By: Frank E. Irby
Frank E. Irby
Chief
Water Rights Div.

ILLEGIBLE

SCHLUMBERGER ELECTRICAL LOGS

SEC. 20-17-[illegible]

COUNTY	LEA No.
FIELD OR	MALJAMAR
SURVEY	SEC.20-17-32
WELL	Wm. MITCHELL #16-A
COMPANY	MALJAMAR O&G CO.
	MAY 21, 194[illegible]

COMPANY: [illegible]

WELL: Wm. [illegible] 16-A [illegible]

FIELD: [illegible]

SURVEY: [illegible] 20-17-[illegible]

COUNTY: [illegible]

STATE: [illegible] FILING No.

PROBLEM:

Elevation:

First Reading		: 4017	ft.	Started run	:	m.
Last Reading		: [illegible]	ft.	Finished run	:	m.
Footage Measured		: [illegible]	ft.	Time well occupied by outfit	: 4	hrs.
Casing Shoe Depth:	DRILLER	: [illegible]	ft.	Time waiting at well	:	hrs.
	SCHLUMBERGER	: [illegible]	ft.	Total time incurred by run	:	hrs.
Bottom Depth	DRILLER	: 4023	ft.	Mileage incurred by run	:	Mi.
Total Depth Reached		: 4017	ft.			

MUD CHARACTERISTICS

Nature: OIL
Viscosity:
Weight:
Resistivity: [illegible] °F
Bottom Temperature: 79 °F

Diameters of hole: from CSG. to TD 6 5/8"; from ... to ...; from ... to ...

REMARKS

DEPTH [illegible]

Location of Well

S. 20 T. 21 R. 38

SCHLUMBERGER ELECTRICAL LOGS

COMPANY: [illegible]

WELL: [illegible]

FIELD: [illegible]

SURVEY: [illegible]

COUNTY: [illegible]

STATE: [illegible] FILING NO.:

PROBLEM:

ILLEGIBLE

First Reading		: 4038	ft.	Started run	: [illegible]		
Last Reading		: 3454	ft.	Finished run	: [illegible]		
Footage Measured		: 584	ft.	Time well occupied by surface	: [illegible]		hrs
Casing Shoe Depth:	DRILLER	: 3459	ft.	Time waiting at well	: [illegible]		hrs
	SCHLUMBERGER	: 3454	ft.	Total time incurred by run	: [illegible]		hrs
Bottom Depth	DRILLER	: 4035	ft.	Mileage incurred by run	: [illegible]		Mi
Total Depth Reached		: 4038	ft.				

MUD CHARACTERISTICS

Nature: [illegible] Viscosity: [illegible]

Weight: [illegible] Resistivity: [illegible] @ [illegible] F

Bottom Temperature: [illegible] F

Diameters of hole: from [illegible] to T.D. [illegible]

from [illegible] to [illegible]

from [illegible] to [illegible]

REMARKS

[illegible]

LANE WELLS

Radioactivity Log

COMPANY: BUFFALO OIL COMPANY
WELL: MITCHELL "A" NO. 3
FIELD: MALJAMAR
COUNTY: LEA STATE: NEW MEX.
LOCATION:

COMPANY: BUFFALO OIL COMPANY
WELL: MITCHELL "A" NO. 3
FIELD: MALJAMAR
COUNTY: LEA STATE: NEW MEX.
LOCATION: 1980' FNL & 660' FEL, SEC. 20
T-17-S, R-32-E.

Location of Well

20

ILLEGIBLE

LOG MEAS. FROM TOP TUBING HEAD ELEV. 4002
DRLG. MEAS. FROM TOP TUBING HEAD ELEV. 4002
PERM. DATUM TOP TUBING HEAD ELEV. 4002

TYPE OF LOG	GAMMA RAY	NEUTRON	CALIPER	
RUN NO.	ONE	ONE	ONE	
DATE	7-9-56	7-9-56	7-9-56	
TOTAL DEPTH (DRILLER) (RACK)	4069	4069	4069	
EFFECTIVE DEPTH (DRILLER)	4069	4069	4069	
TOP OF LOGGED INTERVAL	SURFACE	SURFACE	3657	
BOTTOM OF LOGGED INTERVAL	4050	4059	4058	
TYPE OF FLUID IN HOLE	OIL	OIL	OIL	
FLUID LEVEL	752	752	-	
MAXIMUM RECORDED TEMP.	-	-	-	
SOURCE STRENGTH & TYPE	-	600 - N	-	
SOURCE SPACING — IN.	-	8.25	-	
LENGTH OF MEASURING DEVICE — IN.	36	9.1*	9	
O.D. OF INSTRUMENT — IN.	3 5/8	3 5/8	3 1/2	
TIME CONSTANT — SECONDS	3.6	2.9	-	
LOGGING SPEED FT. P.M.	20-40	20-40	20	
STATISTICAL VARIATION — IN.	-	-	-	
SENSITIVITY REFERENCE	274	275	-	
RECORDED BY	SCHLOTTERBACK		SCHLOTTERBACK	
WITNESSED BY	SHEILDS	SHEILDS	SHEILDS	

REMARKS OR OTHER DATA

WELL RECORD

RUN NO.	BIT SIZE	CASING	WT.—LB.	FROM WELL RECORD			FROM LOG		
ONE	12 1/2	10	40	SURFACE	TO	794	SURFACE	TO	795
ONE	10	7	24	SURFACE	TO	3670	SURFACE	TO	3657
ONE	6 1/4	O. H.		3670	TO	4069	3657	TO	4061
					TO			TO	
					TO			TO	
					TO			TO	

SCHLUMBERGER ELECTRICAL LOGS

COMPANY: [illegible]

WELL: [illegible]

FIELD: [illegible]

SURVEY: [illegible]

COUNTY: [illegible]

STATE: [illegible] FILING No.:

PROBLEM:

COUNTY LEA No.
FIELD OR MALJAMAR
SURVEY SEC. 20-17-32
WELL [illegible] "L" A
COMPANY MALJAMAR OIL CO.
MAY 21, 1945

Elevation: [illegible]

First Reading		4027	ft.	Started run	:	m.
Last Reading		[illegible]	ft.	Finished run	:	m.
Footage Measured		4 [illegible]	ft.	Time well occupied by outfit	: 4	hrs.
Casing Shoe Depth:	DRILLER	[illegible]	ft.	Time waiting at well	:	hrs.
	SCHLUMBERGER	[illegible]	ft.	Total time incurred by run	:	hrs.
Bottom Depth	DRILLER	4025	ft	Mileage incurred by run	:	Mi.
Total Depth Reached		4027	ft.			

MUD CHARACTERISTICS

Nature: OIL Viscosity: [illegible]
Weight: [illegible] Resistivity: [illegible] @ [illegible] F
Bottom Temperature: 79 F

Diameters of hole: from CSG. to TD 6 5/8"
from [illegible] to [illegible]
from [illegible] to [illegible]

REMARKS

DEPTH [illegible]

ILLEGIBLE

McCullough

SCINTILLOMETER
NUCLEAR
GAMMA RAY-NEUTRON LOG

FILING NO. W-21825

COMPANY CONTINENTAL OIL COMPANY

WELL M.C.A. UNIT #157

FIELD MALJAMAR

COUNTY LEA STATE NEW MEXICO

LOCATION:

SE¼ OF NW¼,
SEC. 29,

SEC. TWP. -17-S RGE. 32-E

OTHER SERVICES:

ELEVATIONS:
KB.
DF.
GL.

PERMANENT DATUM GROUND LEVEL ELEV.
LOG MEASURED FROM 10 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM KELLY BUSHING

DATE	4-14-64		
RUN NO.	ONE		
TYPE LOG	G/R-NEUTRON		
DEPTH—DRILLER	4031'		
DEPTH—LOGGER	4023'		
BOTTOM LOGGED INTERVAL	4022'		
TOP LOGGED INTERVAL	2200'		
TYPE FLUID IN HOLE	OIL		
SALINITY PPM CL.			
DENSITY LB./GAL.			
LEVEL	2300'		
MAX. REC. TEMP. DEG. F	LESS THAN 100°		
OPR. RIG TIME	2 HOURS		
RECORDED BY	CASKEY		
WITNESSED BY	MR. KOPCHEK		

RUN NO.	BORE HOLE RECORD BIT	FROM	TO	CASING RECORD SIZE	WGT	FROM	TO
				7"		0	3500'

THIS HEADING AND LOG CONFORMS TO API RECOMMENDED STANDARD PRACTICE RP-33

FOLD HERE