

Prepared By R. L. Kleiv

Approved By

Date September 10, 1987

D R I L L I N G P R O G R A M

MARATHON OIL COMPANY

MID-CONTINENT REGION

WELL: State Section 16 Com #1

AFE NO. 44555

STATE: New Mexico

COUNTY: Lea

Surface Location: 1980' FSL & 1980' FWL of Section 16, T-17-S, R-35-W

KB Elevation: 4022'

GL Elevation: 3997'

TOTAL DEPTH: 12,500'

G E O L O G I C A L P R O G R A M

Estimated Formation Tops

MD

San Andres

4675'

Tubb

7625'

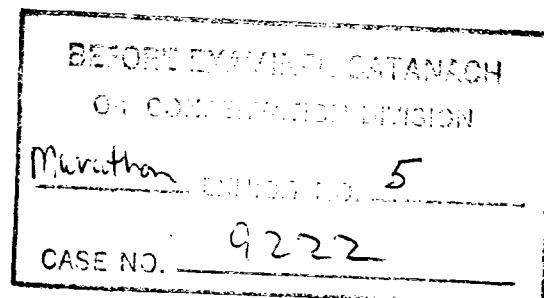
Strawn Lime

11,817'

Lower Atoka

11,997

Anticipated Drilling Problems: None



Coring and DST's: One DST in Basal Atoka

Mud Logging: Contractor Not Determined Start at 8,500'

Services Requested One man service 8,500' to 11,500'

Two man service 11,500' to 12,500'

Logging Program: Contractor Not Determined - will be bid out

Conductor: None

Surface: None

Intermediate: None

Production: GR-CNL-LDT (to surface), GR-DLL-SFL

Liner:

BEFORE EXAMINED CATANACH
OIL CORPORATION DIVISION

Plavaton EXHIBIT NO. _____

CASE NO. 9222

DRILLING PROGRAM

Drilling Contractor: Not Determined

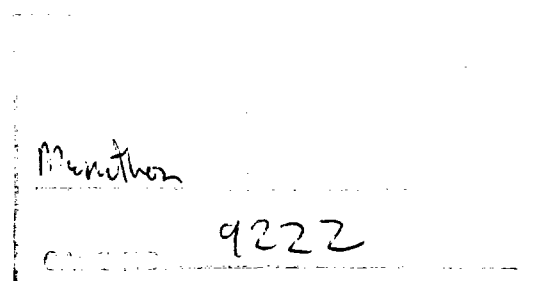
LOCATION: Stake and build location to rig specifications. Drill mousehole and
rathole. Line reserve pit and fence location.

SURFACE: Drill 17½" hole to 300' with fresh water. Run and cement 13-3/8"
casing. Nipple up and test BOP stack. Test casing to 1,000 psi.

INTERMEDIATE: Drill 12¼" hole to 5,000' using brine water. Run and cement
9-5/8" casing. Nipple up and test BOP stack. Test casing to 2,000 psi.
Drill out shoe and test to 12.5 ppg EMW.

PRODUCTION: Drill 8-3/4" hole to 12,500'. Log. Run and cement 5½" casing.

LINER:



CASING PROGRAM

Size	Set From	Set To	Weight	Grade	Type	Hole Size	-----API Values-----		
							Tens.	Coll.	Burst
20	0	0							
13-3/8	0	300	48	H-40	ST&C	17-1/2	322M	770	1730
9-5/8	0	3,200	36	K-55	ST&C	12-1/4	423M	2020	3520
9-5/8	3,200	5,000	40	N-80	LT&C	12-1/4	737M	3090	5750
5-1/2	0	12,500	17	N-80	ST&C	8-3/4	348M	6280	7740

CASING DESIGN

Size	Weight	Grade	Depth	Frac. Grad. @ Shoe	Form. Press. @ Shoe	Max. Surf. Press.	---Design Factors---		
							Tens.	Coll.	Burst
13-3/8	48	H-40	300	12.5	211	176	<10	3.66	9.82
9-5/8	36	K-55	3,200	-	-	3065	2.65	1.15	1.15
9-5/8	40	N-80	5,000	13.5	1456	-	<10	1.10	2.91
5-1/2	17	N-80	12,500	-	-	4738	1.92	1.09	1.82

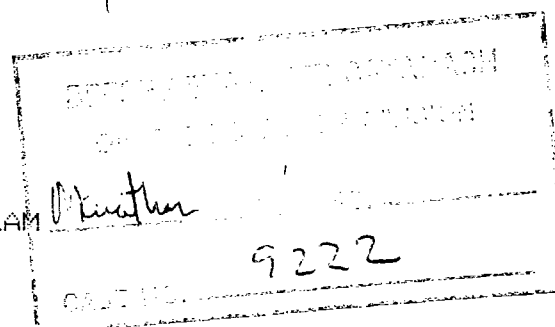
Recommended EHA's:

General:

Murphy

9222

CEMENTING PROGRAM



Contractor: Not Determined

Surf. : Size 13-3/8 Setting Depth 300 Annular Volume(theo.) 208 ft³

Lead Slurry: Density 14.8 Yield 1.32 # of Sx 315

Specifications Class "C" with 4# Flocele & 2% CaCl₂

Total Volume 416 ft³ Desired Top of Cement Surface WOC Time 4 hrs

12-Hour Compressive Strength of Slurry

Int. : Size 9-5/8 Setting Depth 5,000' Annular Volume(theo.) 1,566 ft³

Lead Slurry: Density 13.0 Yield 2.01 # of Sx 1,000

Specifications Light weight cement with 10# salt
& 4# Flocele.

Tail Slurry: Density 15.6 Yield 1.18 # of Sx 200

Specifications Class "H" Neat

Total Volume 2,246 ft³ Desired Top of Cement Surface WOC Time 12 hrs

12-Hour Compressive Strength of Slurry

Prod. : Size 5-1/2 Setting Depth 12,500' Annular Volume(theo.) 1,760 ft³

Lead Slurry: Density 13.0 Yield 2.01 # of Sx 750

Specifications Light weight cement with 5# KCl and
0.5% Retarder

Tail Slurry: Density 14.3 Yield 1.30 # of Sx 650

Specifications Class "H" 50/50 Poz with 5# KCl, 0.5%
Retarder, and 0.5% FLA

Total Volume 2,712 ft³ Desired Top of Cement 4,500' WOC Time -

12-Hour Compressive Strength of Slurry

Remarks If loss circulation is encountered while drilling intermediate hole, a
stage tool will be required to insure adequate cement across the salt sections.

BOP PROGRAM

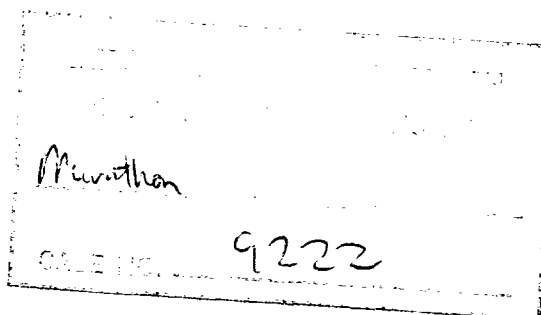
		REQUIREMENTS	TEST PRESSURE
Conductor	Size 20	N/A	
Surface	Size 13-3/8	13-5/8" 3M Annular	1,500 psi
		13-5/8" 3M Dual Ram	1,500 psi
Intermediate or Production	Size 9-5/8	11" 5M Annular	3,500 psi
		11" 5M Dual Ram	5,000 psi
Intermediate with Liner	Size		

WELLHEAD PROGRAM

Manufacturer	Not Determined
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SIZE & RATING

Starting Head	13-3/8" SOW x 13-5/8" 3M
Casing Spool	13-5/8" 3M x 11" 5M
Casing Spool	
Tubing Head	11" 5M x 7-1/16" 5M



MUD PROGRAM

Contractor Not Determined

Interval From	To	Mud Weight	Fluid Loss	Mud Type	Visc.	Comments
0	300	8.4	N/C	FW	--	Spud Mud - Circulate Reserve
300	5,000	9.5-10	N/C	Brine	--	Circ. Res. Mud up to run pipe
5,000	11,000	8.4	N/C	FW	--	Circulate Reserve
11,000	12,500	8.6-9.2	10-15	Cut Brine	35-45	Vis & W, Chlorides $\pm 70,000$
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General Spud with fresh water and circulate reserve pit to maintain low solids
 Drill out from under surface with fresh water making brine additions to control
 salt sections starting at 2,300'. Circulate reserve to maintain low solids
 through Red Beds. It may be necessary to mud up with oil, starch, and gel
 prior to running casing in order to control Red Beds. Drill out from under
 intermediate with fresh water, circulating reserve. Mud up prior to drilling
 Strawn or as hole conditions require.

Marathon

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