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AMOCO PRODUCTION COMPANY DRILLING AND COMPLETION PROGRAM

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Revision Date: 10/11/93

Lease: Martinez Gas Com /J/ County: San Juan, New Mexico Formerly Reference Well #24 Well No. 1

Field: Basin Dakota

Location: 1760' FSL x 1720' FWL, Sec. 32, T32N, R10W

OBJECTIVE: Evaluate and develop Dakota reserves.

METHOD C	F DRILLING		APPROXIMATE DEPT	'HS OF GEOLOG	ICAL MARKER		
TYPE OF TOOLS	PE OF TOOLS DEPTH OF DRILLING		6,088 Est. GL Elev.		6,104 Est. KB Elev.		
Rotary			Marker	Depth (ft)	SS Elev. (ft)		
LOG PROGRAM		Ojo Alamo	1,301	4,803			
Type	Depth Interval		Fruitland	2,518	3,586		
IRI-DIL-CAL-NGT-GR	SFC to TD	Mud Hole	Pictured Cliffs	2,918	3,186		
DC-CNL	SFC to TD	Mud Hole	Lewis Shale	3,118	2,986		
MICROLOG	TD + 1000'	Mud Hole	Cliff House	4,688	1,416		
MRI	*ICP to Top F	ruitland (6" tool)	Menefee	4,788	1,316		
	**TD to PCP	(4.5" tool)	Point Lookout	5,145	959		
pithermal Neutron/		,	Mancos Shale	5,545			
Spectral Density/Temp Log	PCP - ICP	Air Hole	Greenhorn	7,171	(1,067)		
OIL-Cal-GR	PCP - ICP	Air Hole	Dakota #	7,295			
REMARKS:			TOTAL DEPTH:	7,683	(1,579)		
Magnetic Resonance Image (MRI), pulls at 7'/min. (409) 836 2955 (Numar, Brenham District).			# Probable completion interval * Possible pay.				
*Contact Roger Gierhart (303/830 – 5053) for authorization. **Contact Harry TerBest (303/830 – 6038) for authorization.			DRILL CUTTING SAMPLES DRILLING TIME				
SPECIAL TESTS			FREQUENCY	DEPTH	FREQUENCY	DEPTH	
TYPE	DEPTH INTERVAL, ETC		20'	PCP - TD		0 – TD	
ITE	DET TITLE	,,,,,,	Remarks:				
None			Mudlogging Program:				
Remarks:		Full two man mudlogging services for Dakota from PCP to TD.					
nemarks.			33	3			
MUD PROGRAM:					14//L 1- /00!-		
Approx Interval	Type Mud	Weight,	#/gal Vis, sec/qt		W/L, cc's/30 min		
0' - SCP	SPUD	8.5 - 9.					
SCP - ICP	LSND	8.8 - 11	.0	•			
ICP - PCP	AIR	_					
PCP - TD	LSND	9.0 - 10					

^{*} Use minimum mud weight to control formation pressures.

CASING PROGRA	AM: Estimated Depth (ft)	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor Surface (SCP) Intermediate (ICP) Protective (PCP) Production (TD)	400 3,268 7,171 7,683	13-3/8° 9-5/8° 7° 4-1/2"	17-1/2* 12-1/4* 8-3/4* 6-1/4*	1,2 1,2,3 2,4 2,5

Remarks:

REMARKS:

- 1. Circulate cement to surface.
- 2. Southern Rockies Drilling Team to design cement programs.
- 3. Casing set 150' into Lewis Shale.
- 4. Casing set at top of Greenhorn Limestone.
- 5. Casing set 50' into Morrison.

GENERAL REMARKS:

Southern Rockies Dakota Engineer to design completion program.

Rivised for larger casing design.

Form 46 Reviewed by: PREPARED BY: F. Seidel/H. TerBest Form 46 7-84bw Logging program eviewed by:

APPROVED:

For Production Dept

APPROVED:

For Exploration Dept