

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Indian Hills Unit #30

Test Frequency

1. When installed.
2. Anytime a pressure seal is broken (test confined only to affected equipment).
3. At least every 20 days.
4. Blind and pipe rams shall be activated each trip but not more than once/day.

4. Casing and Cement Program:

<u>---DEPTH---</u> <u>FROM TO</u>	<u>SECTION</u> <u>LENGTH</u>	<u>HOLE</u> <u>SIZE</u>	<u>CSG</u> <u>SIZE</u>	<u>WT.</u> <u>PPF</u>	<u>GRADE</u>	<u>THREADS</u> <u>COUPLINGS</u>	<u>NEW</u> <u>USED</u>
0 1200'	1200'	17.50"	13-3/8"	54.50#	K-55	8rd, STC	New
0 5500'	5500'	12.25"	9-5/8"	40#	K-55	BT&C	New
5500' 8900'	4400'	12.25"	9-5/8"	53.5	L-80	BT&C	New
8700' 10,500'	1800'	8.50	5-1/2"	17.0#	K-55	8rd, LT&C	New

<u>Casing</u> <u>String</u>	<u>DV</u> <u>Depth</u>	<u>Stg.</u>	<u>Lead</u> <u>Tail</u>	<u>Amt</u> <u>SXS</u>	<u>Type</u> <u>Cement</u>	<u>Yield</u> <u>CF/SX</u>	<u>Wt.</u> <u>PPG.</u>	<u>TOC</u>	<u>Additives</u>
13-3/8"			L	100	"C"	7.15	9.5		Dia Seal
13-3/8"			L	100	Thixset	1.52	14.0		Thixset
13-3/8"			L	750	Lite	2.02	12.4	surface	2% cacl2
13-3/8"			T	300	PremPlus	1.34	14.8		
9-5/8"	6400'	1	L	350	" "	2.18	9.2		N2
9-5/8"		1	T	700	" "	1.44	13.0		N2
9-5/8"		2	L	1360	Interfill "C"	2.47	11.9		Flocele
9-5/8"		2	T	200	PremPlus	1.32	14.8		Neat
5-1/2"		1	L	200	Mod. Super "H"	1.67	13.0		5-PPS Gilsonite

Each stage will be preceded by an appropriate mud flush. Actual production hole volumes will be based on the caliper volume plus 25% excess.

Centralizer Program: