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more important is the inhibiting qualities while drilling the highly water sensitive Morrow sands that contain interstitial clays that swell. Tests indicate that 2% KCl affords 40% suppression, 4-5% affords 80% suppression, and 15% or above allows 100% suppression in most formation clays of bentonitic origin. Also little or no skin damage is suffered with 4-5% KCl in Morrow sections. Caliper logs indicate high quality shale holes with very little wash outs.

Gas kicks are almost a certainty in this section. Adequate P. V. T. and Flo-Sho equipment is a must through this interval. Rig crews should be on the alert at all times and hold blow out drills periodically.

14,500'-18,500'

Surface volume should be kept at a minimum in this section. Weighted mud should not be necessary, however, adequate barite stock should be maintained. KCl is optional depending on shale amount and condition thereof. No problems expected through this section.

Suggested Casing Program

Depth	Hole Size	Csg. Size	Bits	Drlg. Days	Hole Volume
0-400'	26"	20"	1	1	280
400'-5300'	17½"	13 3/8"	3	10	1570
5300'-12,500'	12¼"	9 5/8"	5	20	1800
12500'-14500'	8 3/4"	7 5/8"	10	40	1450
14500'-18500'	6½"	4½"	11	45	1650