

Operator Name: Conoco
Well Name: State B-19 No. 2
Job Description: 5-1/2" Production Casing
Date: January 25, 2000



Proposal No: 180253006A

FLUID SPECIFICATIONS

Pre-flush

1,500.0 gals Mud Clean I @ 8.4 ppg

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	1686	/ 1.85	= 912 sacks (35:65) Poz (Fly Ash):Class C Cement + 0.25% bwoc Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 95.7% Fresh Water
Tail Slurry	535	/ 1.34	= 398 sacks Class C Cement + 1% bwoc BA-58 + 0.9% bwoc FL-50 + 0.5% bwoc CD-32 + 0.005 gps FP-6L + 0.2% bwoc Sodium Metasilicate + 55.7% Fresh Water
Displacement			183.9 bbls Water + 55.7% Fresh Water @ 8.4 ppg

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.85	1.34
Amount of Mix Water (gps)	9.98	6.28
Amount of Mix Fluid (gps)	9.99	6.29
Estimated Pumping Time - 70 BC (HH:MM)	2:49	1:49
Free Water (mls) @ ° F @ 90 ° angle	0.9	

RHEOLOGIES

<u>FLUID</u>	<u>TEMP</u>	<u>600</u>	<u>300</u>	<u>200</u>	<u>100</u>	<u>6</u>	<u>3</u>
Lead Slurry	@ ° F	153	141	136	130	50	38
Tail Slurry	@ 80 ° F	150	102	85	68	43	35