DRILLING FLUIDS

Information on the types (including chemical constituents) and amounts of the drilling fluids planned for use in drilling the proposed wells:

Type of Drilling Fluid	Estimated Volume of Drilling Fluid to be Used per Well
Water-based (seawater, brine, freshwater)	5,000 bbls
Oil-based (diesel, mineral oil)	0bbls
Synthetic-based (internal olefin)	0 bbls

Minimum products of Water-Based drilling fluid listed above:

Product Name	Amount to be Used	Reference Number	MSDS No.
CLS (Lignosulfonate)	420-50 lb bags	CAS# - 9006-50-6	12108
GEL	1200-100 lb bags	CAS# - 1302-78-9	12150
Bicarb (Sodium	30- 50-lb bags	CAS# - 144-55-8	10211
FM WASH (surfactant)	550 gallons	CAS# -	5002
Caustic	175-50 lb bags	CAS# - 1310-73-2	10540
Lignite	420-50lb bags	CAS# - 1415-93-6	10612
Defoamer	20 gals	CAS# -	F093616
Barite	19000-100 lb bags	CAS# - 7727-43-7	10617
Lime (Calcium Hydroxide)	360 50-lb bags	CAS# - 10043-52-4	10546
Permaseal	400 25-lb bags	CAS# -65997-17-3 CAS# -14808-60-7	4008
Silverseal	200 50-lb bags	CAS# - 7782-42-5 CAS# -14808-60-7	4007
XG Vis	40 50-lb bags	CAS# - 11138-66-2	1002

Minimum products of Oil-based drilling fluid listed above:

Product Name	Amount to be Used	Reference Number	MSDS No.