

# MEMORANDUM

To H.E.P., R.J.T.

Date MARCH 24, 1976

From C.O.O.

Ref.

Subject ARSENIC SUPPRESSION

Abstract The use of  $\text{Na}_2\text{S}$  as an arsenic suppressant.

Procedure Combined samples of #6, #11 and #13 thickeners were obtained and treated with varying amounts of  $\text{Na}_2\text{S}$ .

Data	pH	ppm Cu	ppm Fe	ppm As
#6 thickener	6.6	ND	10.1	30.0
#11 thickener	5.4	ND	144	136
#13 thickener	6.1	ND	24.0	600
Combination	6.6	2	19.5	134
Combination (theo)	?	ND	50.0	151

Note Combination Ratio's

#6 = 70/125    #11 = 35/125    #13 = 20/125

Amount $\text{Na}_2\text{S}$ (g)	pH	ppm Cu	ppm Fe	ppm As
.7	7.0	ND	3.0	108
1.5	8.3	ND	1.9	113
2.7	9.0	ND	2.0	136
4.4	9.4	ND	.9	160

Conclusions the above results show that the use of  $\text{Na}_2\text{S}$  as a suppressant of arsenic is not too good (under statement); but, maybe with the use of lime it might work as shown by the Denver Research Institute.