

MEMORANDUM

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From C.Q.O.

Ref.

Subject ARSENIC SUPPRESSION

Abstract to establish if NH_4OH by itself is a suppressant of arsenic.

Procedure The ritual of obtaining combined samples from the thickeners #6, #11, and #13 was similar to the previous report of March 19, 1976. After the combined samples were agitated 1 ml, 2 ml, 5 ml, and 8 ml of NH_4OH were added and agitated again. They were then analyzed for pH, Cu, Fe and As.

Data

	pH	ppm Cu	ppm Fe	ppm As
thickener #6	6.3	ND	7.4	19.5
thickener #11	3.9	.60	103	120
thickener #13	6.8	ND	.50	640
combination (theo)	?	ND	33	147

Note - Combined sample ratios

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

- also all samples 2000 ml

Amount NH_4OH (ml)	pH	ppm Cu	ppm Fe	ppm As
1	7.1	ND	.60	165
2	8.4	ND	.50	207
5	9.4	.65	.10	175
8	9.7	1.70	.21	166

Conclusions

from the above data it is easily seen that NH_4OH is not an arsenic suppressant, but is needed when using FeCl_3 as a suppressant.