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DEPARTMENT OF THE NAVY

Memorandum

DATE: 12 May 1981

FROM Ms. E. Betz, Water Quality Control Lab., NREAD, BMaintDept

CLW

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TO Mr. D. Sharpe, Ecologist, NREAD, BMaintDept

SUBJ Suspected Chemical Dump, Rifle Range Area; analyses of groundwater and surface water at

REF (a) LANTNAVFACENGCOM ltr 114:JGW 6280 of 8 May 1981
(b) LANTNAVFACENGCOM ltr 114:JGW 6280 of 18 Mar 1981
(c) FONECON LANTNAVFACENGCOM (Mr. J. Wallmeyer)/MCB Camp Lejeune (Ms. E. Betz) during the week of 16 Mar 1981

1. The sample of 30 Mar 1981 and of 10 Apr 1981 had several differences in their collection that could be causes of the varying readings shown in Reference (a).

2. The primary differences were the sample containers and their preparation. The samples of 30 Mar 1981 were taken in old acid bottles. The bottles had been washed as closely to the recommended procedure in Reference (b). During Reference (c) Jerry Wallmeyer had transmitted the procedure and said to do the best possible. I stated the Lab had no Hexane and therefore would omit that rinse.

3. The samples of 10 April 1981 were taken in new Mason jars. Again the bottles had been washed as closely to the recommended procedure, and again omitting the Hexane rinse, but also omitting the chloroform rinse, at Wallace Eake's (NEESA) recommendation.

4. The chloroform rinse, since chloroform vapors were present at collection, could have caused the high levels of chloroform, obviously, and of carbon tetrachloride and methlyene chloride, since they are possible contaminates of chloroform.

5. Another attributing factor to the low levels in the second sampling could have been due to the poor condition of the pump used to collect the test well samples. The pump was not working properly. It was loosing suction during the 10 Apr 1981 sampling. For the 30 Mar 1981 sampling, we allowed the flow from the pump and well to flow out for about five minutes after the water level was up, before the sample was collected. This was to insure the sample was from the well and not the pipe or from the pump priming water. Due to the bad pump during the 10 Apr 1981 sampling the water was not allowed to run that long for fear the pump would give out thus the sample might have ahd priming (distilled) water in it. However this would not effect the pool samples since they were not pumped.

6. Finally, the weather around 30 Mar 1981 was wet, as opposed to the dry weather around 10 Apr 1981.

7. My recommendation is recollect the samples after the lab receives some Hexane (Docu # 1086-W003). Also purchase a new pump to collect the test wells with so the flow can run for awhile to be sure to get only the water from the wells in the samples. And if funds are available collect two samples from one well, onein a container with chloroform and without Hexane and one with Hexane.

Elizabeth A. Betz