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# GRAINGER LABORATORIES

INCORPORATED

ANALYTICAL AND CONSULTING CHEMISTS

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## ANALYTICAL LABORATORY

- Environment Analysis
- Construction Materials
- Identification of Unknowns
- Agriculture
- Fuels
- Textiles
- Chemicals
- Hazardous Waste

August 10, 1982  
82-4471

Commanding General  
Marine Corps Base  
Camp Lejeune, N.C. 28542

Attention: AC/S Facilities

Subject: Analyses of samples 206 and 207 from site coded "TT" and samples 208 and 209 from site coded "HP". Samples received July 29, 1982.

### Discussion:

Previously all samples from site TT and HP presented difficulties in performing the monthly Trihalomethane analyses. Interferences which were thought to be chlorinated hydrocarbons hindered the quantitation of certain Trihalomethanes. These appeared to be at high levels and hence more important from a health standpoint than the total Trihalomethane content. For these reasons we called the situation to the attention of Camp Lejeune personnel.

### Results:

The identity of the contaminant in the well field represented by samples 206 and 207 was suspected to be Tetrachloroethylene. This was confirmed by two analytical techniques and the results were 76 µg/l and 82 µg/l for samples 206 and 207 respectively.. Sample 86 from May 27, 1982 was reanalyzed as a part of our study. Sample 86 was from site TT and contained 80 µg/l tetrachloroethylene.

Samples 208 and 209 were also analyzed by the same analytical techniques. The magnitude of the contamination was not as great as previously observed from this same sampling point. Upon reanalyzing sample 120 from site HP May 27, 1982, Trichloroethylene was identified and quantitated at 1400 µg/l. A lesser amount of Tetrachloroethylene was confirmed at 15 µg/l. Samples 208 and 209 contained 19 µg/l and 21 µg/l Trichloroethylene respectively; Tetrachloroethylene was not detected.

## CONSULTATION

- Metallurgical Services
- Pollution Abatement
- Process Development
- Quality Control
- Methods Development
- Special Investigation
- Pesticides
- RCRA

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Prior to this report, the samples from July 28, 1982 from site HP were analyzed. Traces of both solvents were found in this set. Though not quantitated, the level of Trichloroethylene seems to be in the range of that which was found in samples 208 and 209. The sample which showed the most contamination relative to the others was 205. Also sample 168 from site TT on July 28, 1982 was analyzed and shown to contain 104 µg/l Tetrachloroethylene.

Conclusion:

Tetrachloroethylene was identified as the contaminant in the well field coded "TT". Its concentration seems relatively stable over the period in which it has been examined. It was confirmed that the well field coded "HP" has shown contamination by Trichloroethylene and Tetrachloroethylene. These levels have been variable over the period studied and are now at significantly lower levels than when first encountered. The following table summarizes the findings:

<u>Sample</u>	<u>Date Taken</u>	<u>Site Code</u>	<u>Tri chloroethylene</u>	<u>Tetra- chloroethylene</u>
206	7-27-82	TT	-	76
207	7-27-82	TT	-	82
86	5-27-82	TT	-	80
168	7-28-82	TT	-	104
208	7-27-82	HP	19	<1
209	7-27-82	HP	21	<1
120	5-27-82	HP	1400	15
205	7-28-82	HP	No Data	1.0

*Bruce A. Babson*  
Bruce A. Babson  
Chemist

BAB/ab  
Customer #92400

**CLW**

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ROUTING SLIP

AUG 13 1982

	ACTION	INFO	INITIAL
BMO			C
ABMO			CLW
ADMIN			S
ENVIOR AFF	✓		
F&A SEC			
MAINT NCO			
M&R			
OPNS			
PROP			
UMACS			
UTIL			
SECRETARY			

COMMENTS:

8-16-82

Danny,  
 See AC/S Fiac request  
 for interpretation by Betty  
 Jukin

B...  
 40-1 action

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ASSISTANT CHIEF OF STAFF, FACILITIES  
HEADQUARTERS, MARINE CORPS BASE

DATE 13 Aug 82

TO:

BASE MAINT O

PUBLIC WORKS O

COMM-ELECT O

DIR, FAMILY HOUSING

DIR, UNACCOMPANIED PERS HSG

BASE FIRE CHIEF

ATTN: LT Col. Catta

1. Attached is forwarded for info/action.

Re:

2. Please initial, or comment, and return all papers to this office.

*Request you have your chemist  
provide "lay-man" interpretation of  
findings. Thank you.*

3. Your file copy

*Fitz*

"LET'S THINK OF A FEW REASONS  
WHY IT CAN BE DONE"

MCBCL 5216/21 (REV. 2-81)

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