

GRAINGER LABORATORIES

INCORPORATED

ANALYTICAL AND CONSULTING CHEMISTS

709 West Johnson Street

Raleigh, North Carolina 27603

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ANALYTICAL LABORATORY

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

October 13, 1982
82-5049

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

Attention: AC/S Facilities

Subject: Analyses of samples received 10/1/82

Sample Identification: Purchase Order# M67001-82-M-9318

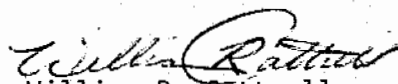
1. A, Hadnot Point, 9/29/82, 0908 hr
2. B, Holcomb Blvd., 9/29/82, 0927
3. C, Tarawa Terrace, 9/29/82, 0940
4. D, Camp Johnson, 9/29/82, 1000
5. E, New River, 9/29/82, 1017
6. F, Rifle Range, 9/29/82, 1045
7. G, Courthouse Bay, 9/29/82, 1105
8. H, Onslow Beach, 9/29/82, 1120

For results see attached page.

CONSULTATION

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

CORRECTED COPY


William R. Cottrell
Laboratory Supervisor

WRC/ab
Customer #92400
cc: Elizabeth Betz



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RESULTS

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
pH	8.9	8.8	8.7	7.3	8.0	8.3	8.1	7.4
Arsenic, total as As, mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, total as Ba, mg/l	0.01	0.03	<0.01	0.04	0.04	0.04	<0.01	0.01
Cadmium, total as Cd, mg/l	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	0.0011	<0.0005
Chromium, total as Cr, mg/l	<0.003	<0.003	<0.003	0.017	<0.003	0.004	<0.003	<0.003
Lead, total as Pb, mg/l	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01
Manganese, total as Mn, mg/l	<0.002	<0.002	0.006	0.015	0.004	0.030	0.011	0.025
Mercury, total as Hg, mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron, total as Fe, mg/l	0.045	0.037	0.020	0.673	0.338	0.544	0.536	0.556
Selenium, total as Se, mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.007
Silver, total as Ag, mg/l	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Fluoride, total as F, mg/l	0.994	0.856	1.00	0.139	0.924	0.126	0.109	0.146
Nitrate-Nitrite Nitrogen, mg/l	0.17	<0.05	0.11	<0.05	<0.05	<0.05	0.11	<0.05

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TABLE OF INORGANIC ANALYSIS RESULTS

Parameter	Limits	HP	HB	TT	CJ	MCAS	RR	CHB	OB
Arsenic	0.05 ppm	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium	1.00 ppm	0.01	0.03	<0.01	0.04	0.04	0.04	<0.01	0.01
Cadmium	0.010 ppm	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	0.0011	<0.0005
Chromium	0.05 ppm	<0.003	<0.003	<0.003	0.017	<0.003	0.004	<0.003	<0.003
Lead	0.05 ppm	<0.01	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01
Manganese	0.05 ppm	<0.002	<0.002	0.006	0.015	0.004	0.030	0.011	0.025
Mercury	0.002 ppm	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Iron	0.30 ppm	0.045	0.037	0.020	0.673	0.338	0.544	0.536	0.556
Selenium	0.01 ppm	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.007
Silver	0.05 ppm	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Fluoride	1.40 ppm	0.994	0.856	1.00	0.139	0.924	0.126	0.109	0.146
Nitrate	10 ppm	0.17	<0.05	0.11	<0.05	<0.05	<0.05	0.11	<0.05

All results are in ppm(mg/l).

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Prepared by Supervisory
Chemist From Data
Provided by Grainger
Laboratories, Raleigh NC