

ASSISTANT CHIEF OF STAFF, FACILITIES
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DATE

9 Apr 86

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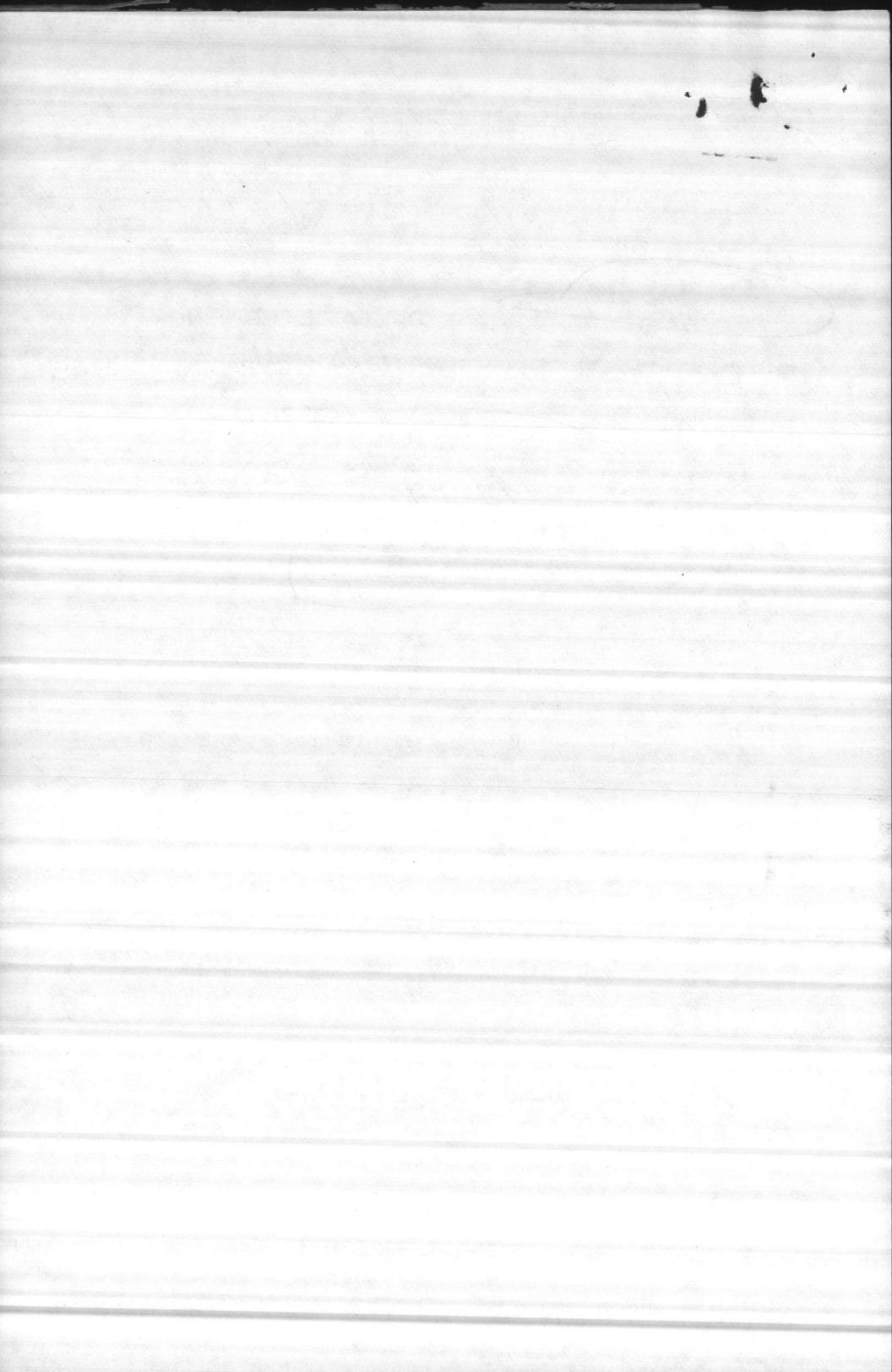
W. J. S.

1. Attached is forwarded for info/action.

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

3. Your file copy

“LET’S THINK OF A FEW REASONS
WHY IT CAN BE DONE”





DEPARTMENT OF THE NAVY

ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

II RZ
TELEPHONE NO. Alex

(804) 444-1179

IN REPLY REFER TO:

6280

1143CFB

6 FEB 1986

U.S. Environmental Protection Agency
Attn: Arthur G. Linton, P.E.
Regional Federal Facilities Coordinator
Region IV
345 Courtland Street
Atlanta, GA 30365

Re: EPA's ltr 4 PMEA/WM of November 18, 1985

Gentlemen:

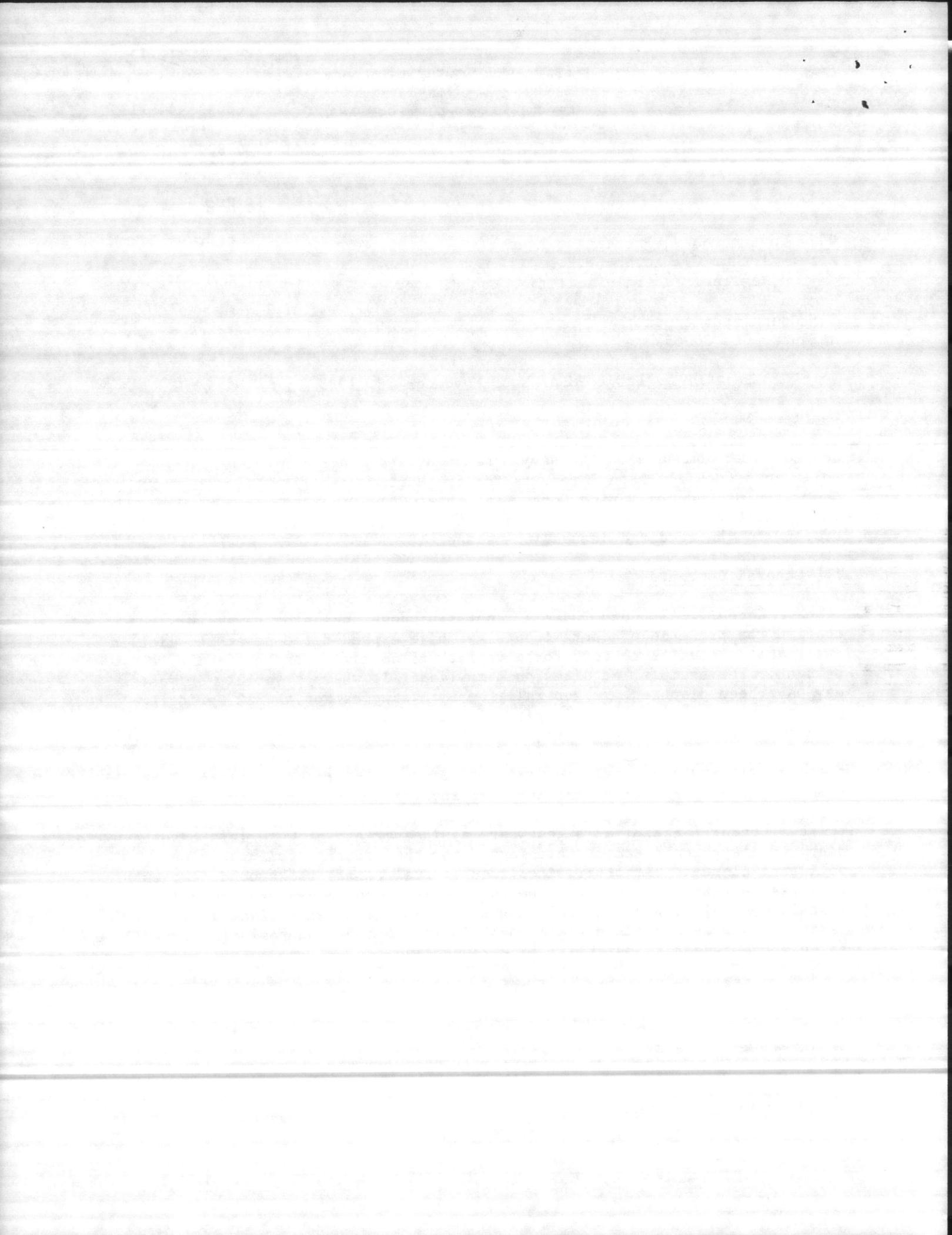
We requested comments on the Navy Assessment and Control of Installation Pollutants (NACIP) Phase I reports for the Marine Corps Air Station (MCAS), Cherry Point and the Marine Corps Base (MARCORB), Camp Lejeune in a letter dated October 31, 1985. We appreciate your timely response and would like to respond to the specific issues you raised.

1. General Comments

a. Concur. Although Phase I reports propose indicator parameters to confirm the presence of contaminants, we have expanded the parameter list in the Phase II studies to test for a variety of contaminants that could be present. For example, at sites such as landfills where a variety of wastes may have been disposed, we generally analyze samples for the 123 priority pollutants or combinations of priority pollutant classes such as volatile organics and pesticides. On the other hand, at former electrical transformer storage yards, we may test for only PCBs, and oil and grease, since these are the contaminants that would logically be present. Current sampling plans for both MCAS Cherry Point and MARCORB Camp Lejeune are enclosed for your review.

b. Concur. Again, at sites where a wide variety of materials have been disposed, background samples are tested for the priority pollutants or pollutant classes. At other sites such as fuel farms, background samples are only tested for specific contaminants. At least one upgradient well is installed at sites where groundwater is tested; upstream surface water and sediment samples are taken where possible; and background soil samples will be taken where needed to establish background levels.

c. Concur. The second step of the Phase II effort, Characterization, is designed to determine the levels and the vertical and horizontal distribution of contamination as well as site hydrogeology and specifics of site groundwater movement.



d. Concur. The objective of the Phase II effort is to quantitatively determine whether contamination has the potential to or is presently affecting human health or the environment.

2. Comments Which Pertain Specifically to MCAS Cherry Point

a & b. Concur. Under the NACIP program, the landfill and the sludge pits are being studied as one site to confirm the presence of contaminants and determine the potential for migration from the site. The data being generated concurrently by the sludge pits post closure monitoring requirements will also be evaluated prior to any recommendations for remedial action. You will be given the opportunity to review our confirmation study efforts as each step is completed and to comment on the results and recommendations for remedial action.

3. Comments Which Pertain Specifically to MARCORB Camp Lejeune

a. This comment has been previously addressed.

b. Do not concur. We do not have any problem obtaining funding for NACIP efforts; therefore, inclusion of Camp Lejeune on the NPL will not enhance the funding priority. Instead, it will probably slow the progress toward cleanup, because of the additional time-consuming steps required for NPL sites. The public and the state are being kept informed; the state through meetings with Camp Lejeune personnel, and the public through articles in the local papers. We are proceeding as expeditiously as possible with the confirmation study and will forward you copies of the reports on the verification and characterization efforts as they become available.

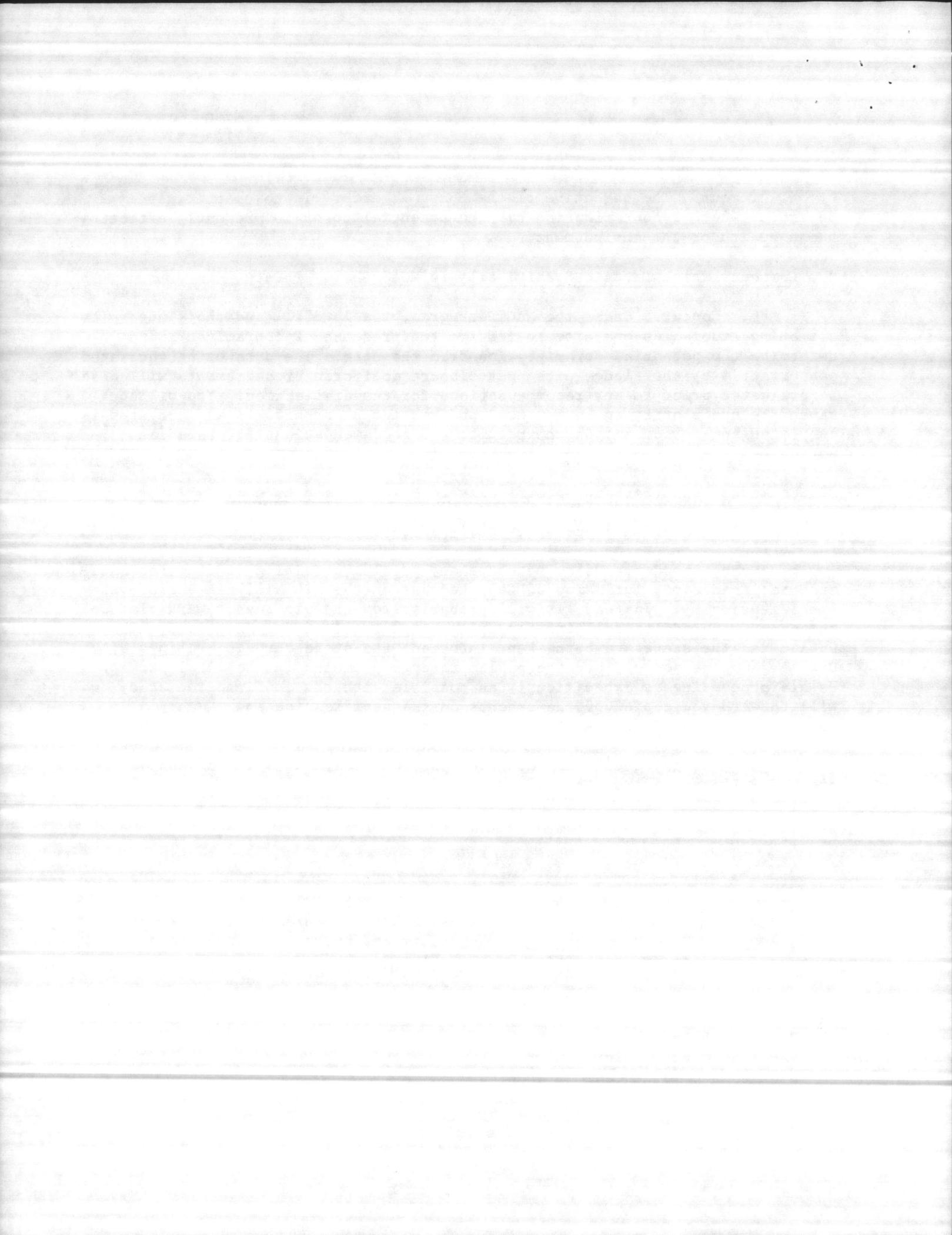
4. If you have any additional questions or concerns, our point of contact for the NACIP Program is Ms. Cherryl Barnett.

Sincerely,

J. R. BAILEY, P.E.
Head, Environmental Quality Branch
Utilities, Energy and Environmental
Division
By direction of the Commander

Encl:

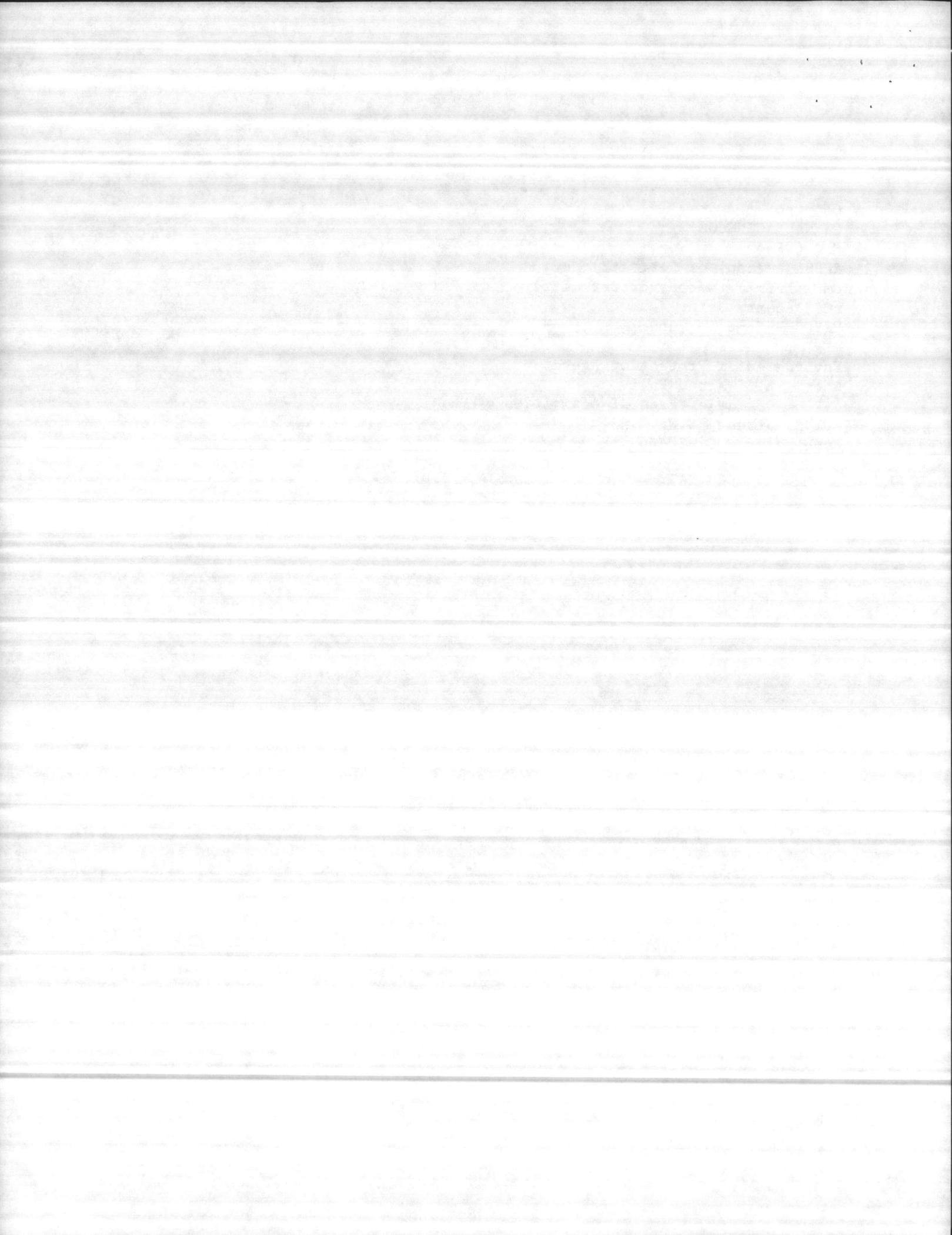
- (1) Sampling Plans
for MCAS Cherry Point
& MARCORB Camp Lejeune



6280
1143CFB

Copy to:
COMNAVFACENGCOM
CNO (OP-45)
NEESA (w/copy of ref. ltr)
CMC (LFF-2) (w/copy of ref. ltr)
MCAS Cherry Point
MARCORB Camp Lejeune ←

Environmental Protection Agency
Attn: LTC Warren Hall
Office of Federal Activities
401 M. Street, S.W.
Washington, DC 20460

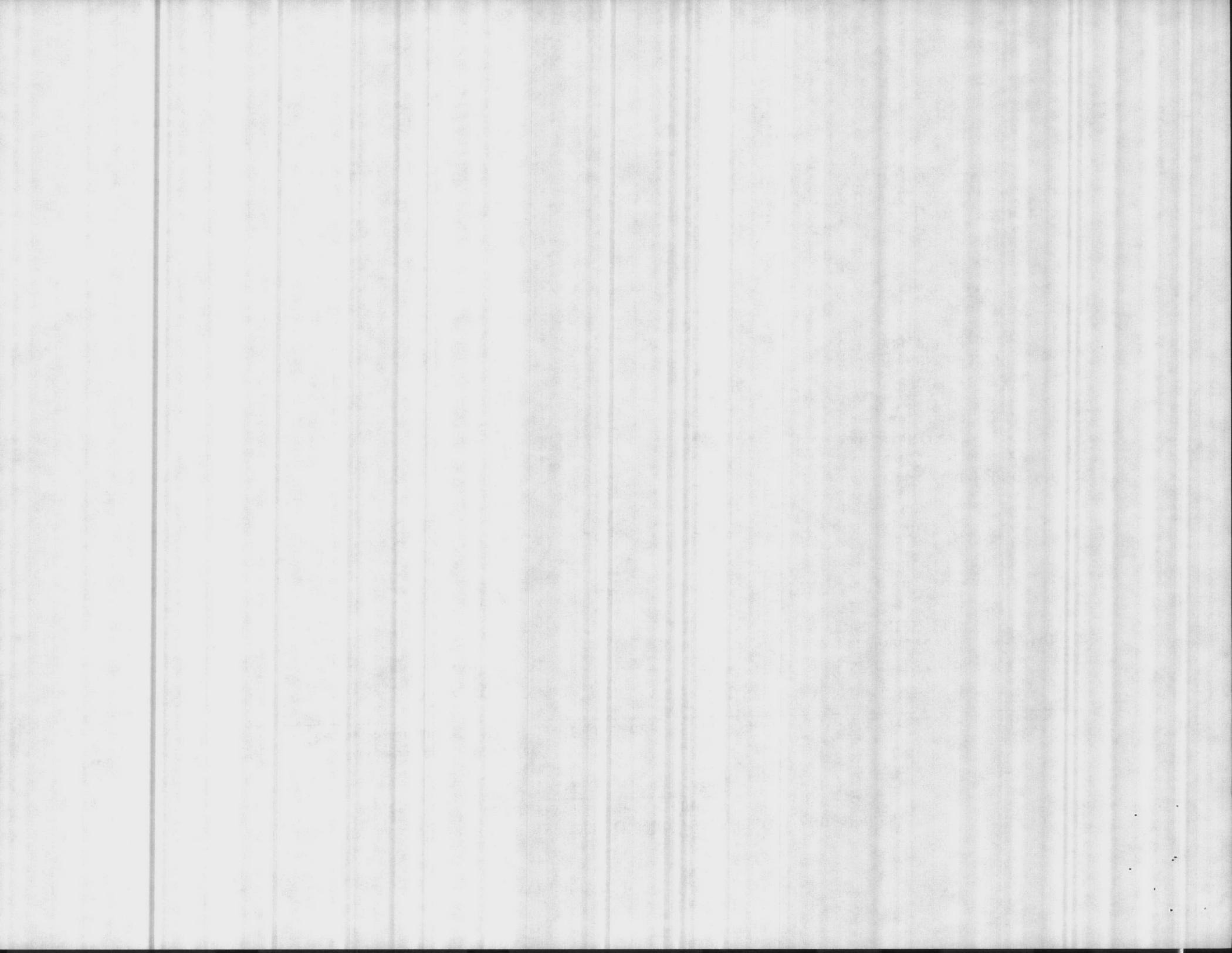


ATTACHMENT D

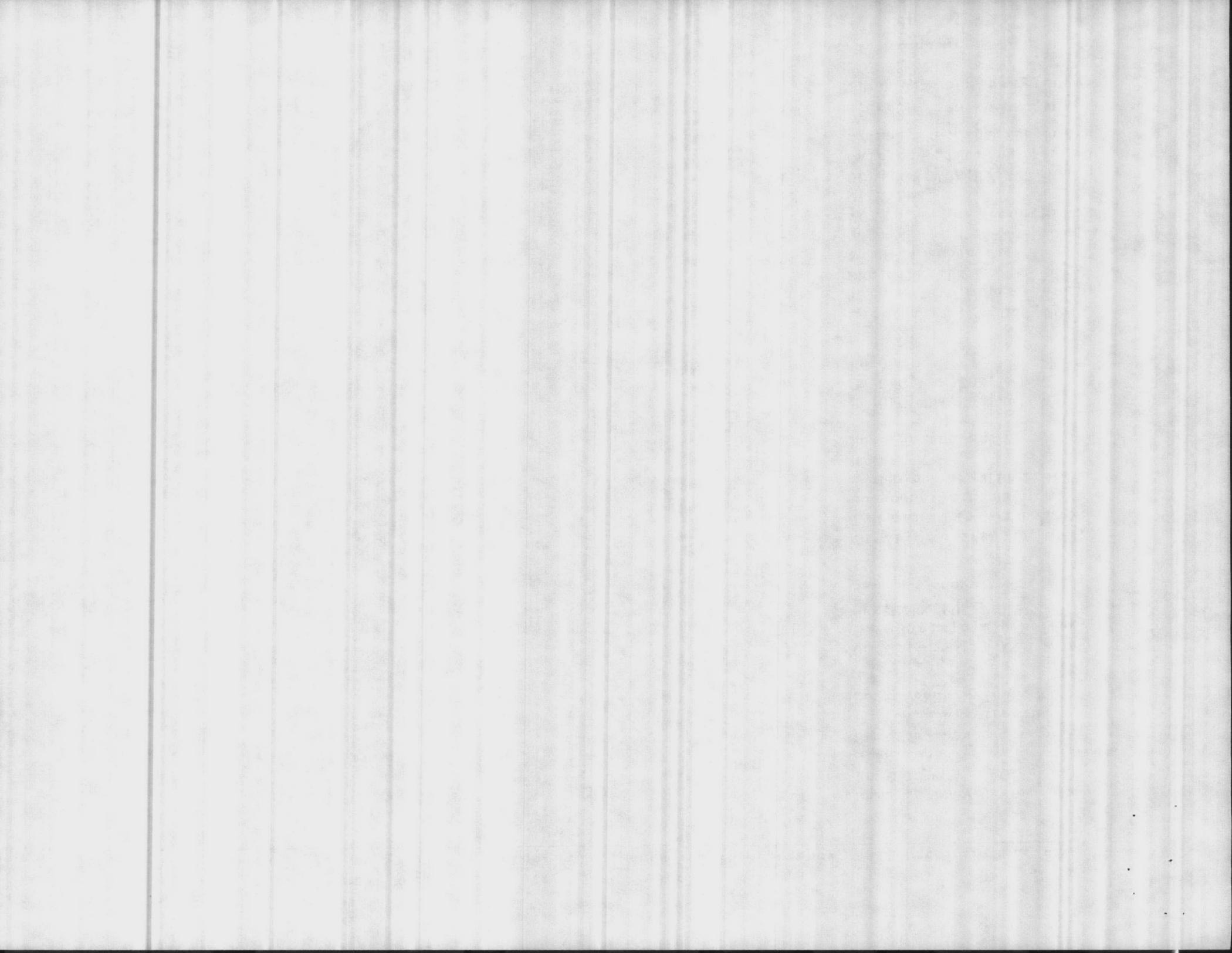
CONFIRMATION STUDY VERIFICATION STEP (ROUND 2) SAMPLING AND ANALYSIS
PROGRAM - MCB CAMP LEJEUNE

Site No.	Wells to be Installed	Total Wells to be Sampled	Surface Water	Sediments	Soil	Frequency	Analytical Parameters
1	-	6	2	2	-	1	* Cd; Cr; Cr ⁺⁶ ; Pb; Sb; O&G; VOA; T. Phenols; o, m, p-xylene; MEK; MIBK; EDB
2	- 4	1 4	2 -	2 -	4 -	1 2	OCP, OCH, dioxin, VOA OCP, OCH, dioxin, VOA
6	8 -	8 -	- 4	- 4	- -	2 1	DDT-R, VOA DDT-R, VOA
9	-	2	-	-	-	1	Cd; Cr, Cr ⁺⁶ ; Pb; O&G; VOA; T. Phenols; o, m, p-xylene; MEK; MIBK; EDB
21	1 - -	1 1 -	- - -	- - -	- - -	2 1 1	Same as above VOA, OCP, OCH, PCB, dioxin, xylene, MEK, MIBK, EDB, O&G OCP, OCH, PCB, dioxin
24	- 2	5 2	4 -	4 -	- -	1 2	Metals A, Cr ⁺⁶ , VOA Metals A, Cr ⁺⁶ , VOA
28	-	3	7	7	-	1	Metals B; Cr ⁺⁶ ; OCP; PCB; O&G; VOA; dioxin; o, m, p-xylene; MEK; MIBK

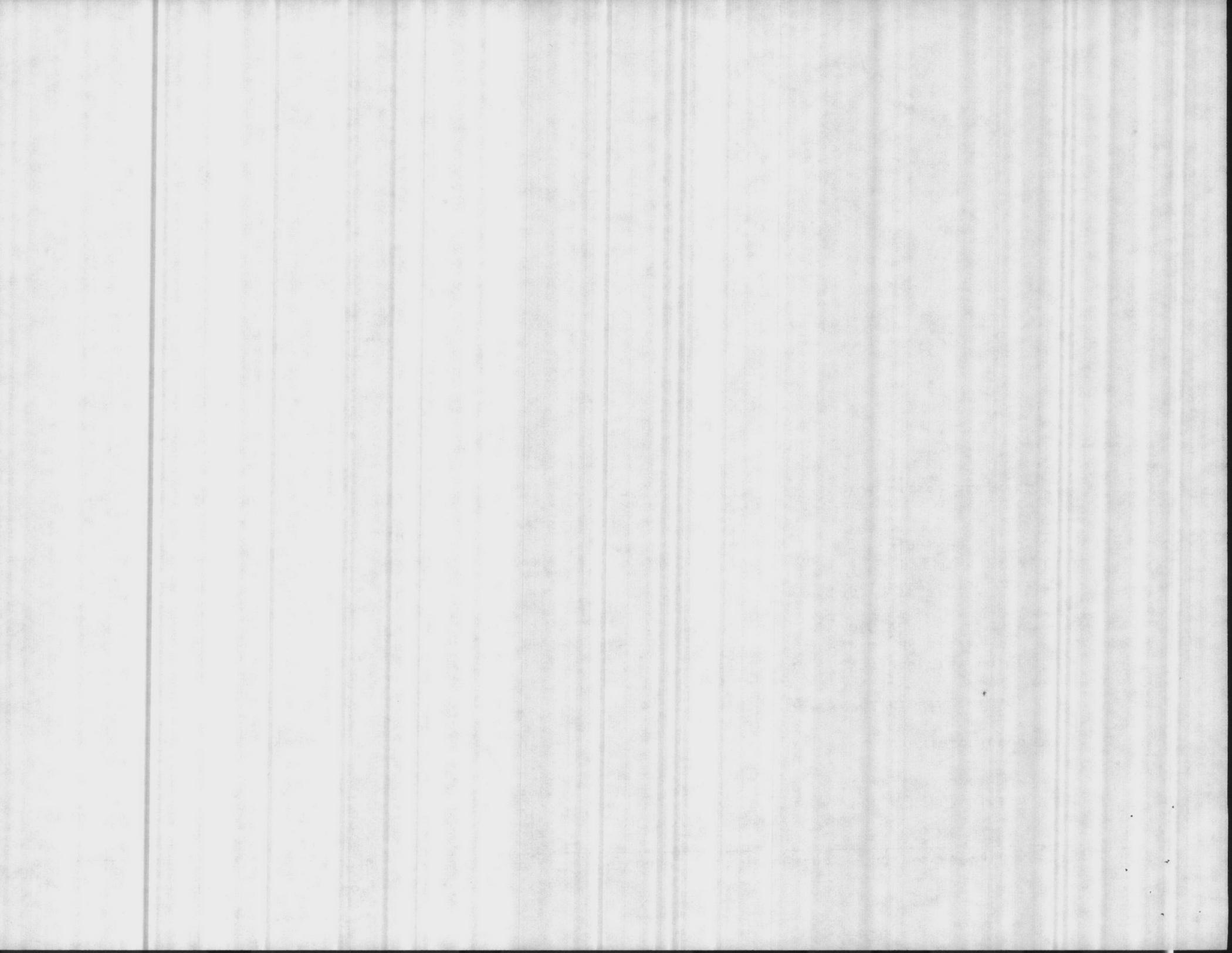
*See Key to Constituent Abbreviations.



Site No.	Wells to be Installed	Total Wells to be Sampled	Surface Water	Sediments	Soil	Frequency	Analytical Parameters
30	1	1	-	-	-	2	Same as above
	-	1	1	1	-	1	Pb, O&G, VOA, xylene, MEK, MIBK, EDB
35	1	1	-	-	-	2	Same as above
	3	3	-	-	-	2	Pb, VOA, EDB, xylene, O&G
	-	-	2	2	-	1	Pb, VOA, EDB, xylene, O&G
36	-	4	4	4	-	1	Cd; Cr; Cr ⁺⁶ ; Pb; O&G; VOA; T. Phenols; o, m, p-xylene; MEK; MIBK; EDB
	1	1	-	-	-	2	Same as above
41	-	4	4	4	-	1	Cd; Cr; Cr ⁺⁶ ; Pb; VOA; O&G; T. Phenols; Ordnance Compounds; dioxin; o, m, p-xylene; MEK; MIBK; OCP; Mirex
	1	1	-	-	-	2	Same as above
45	-	3	2	2	-	1	Pb, O&G, VOA, EDB, xylene
	1	1	-	-	-	2	Pb, O&G, VOA, EDB, xylene
	-	-	-	-	18	1	Pb, O&G
54	-	1	3	3	-	1	Cd; Cr; Cr ⁺⁶ ; Pb; O&G; VOA; T. Phenols; o, m, p-xylene; MEK; MIBK; EDB
	2	2	-	-	-	2	Same as above
68	-	3	-	-	-	1	VOA; o, m, p-xylene; MEK; MIBK; EDB
69	-	8	5	2	-	1	OCP; PCB; VOA; Hg; Residual Chlorine; dioxin; o, m, p-xylene; MEK; MIBK; EDB; PCP
73	1	4	3	3	-	1	Cd; Cr; Cr ⁺⁶ ; Pb; Sb; O&G; VOA; T. Phenols; o, m, p-xylene; MEK; MIBK; EDB
	1	1	-	-	-	2	Same as above



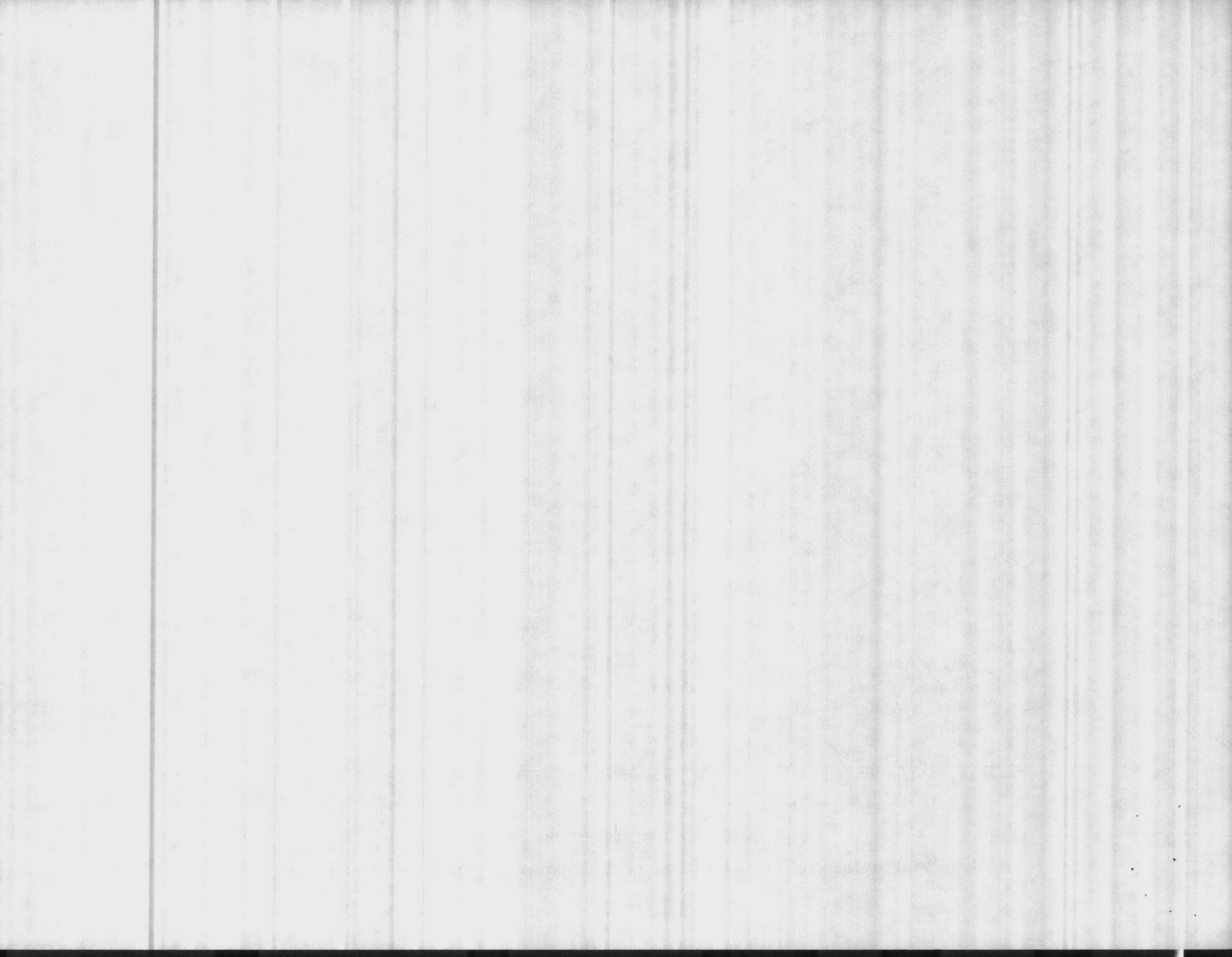
Site No.	Wells to be Installed	Total Wells to be Sampled	Surface Water	Sediments	Soil	Frequency	Analytical Parameters
74	-	2	-	-	-	1	OCP,OCH,PCB,dioxin,VOA
	1	1	-	-	-	2	Same as above
75	-	3	-	-	-	1	VOA,dioxin,chloropicrin
76	-	2	-	-	-	1	VOA,dioxin,chloropicrin
A	3	3	-	-	-	2	VOA,O&G,free chlorine
	-	-	1	-	-	1	Same as above
	-	-	-	1	-	1	O&G,VOA
Potable Wells	-	110	-	-	-	1	Priority pollutants, SDWA parameters,xylene, MEK,MIBK,EDB
	-	20	-	-	-	1	VOA
Soil Gas Wells	30	35	1	-	-	2	VOA,xylene,MEK,MIBK



CONFIRMATION STEP CHARACTERIZATION STEP AT HADNOT POINT INDUSTRIAL AREA

SAMPLING AND ANALYSIS PROGRAM

Site No.	Wells to be Installed	Total Wells to be Sampled	Surface Water	Sediments	Soil	Frequency	Analytical Parameters
22	14	17	-	-	-	3	Pb, O&G, VOA, xylene, MEK, MIBK, EDB

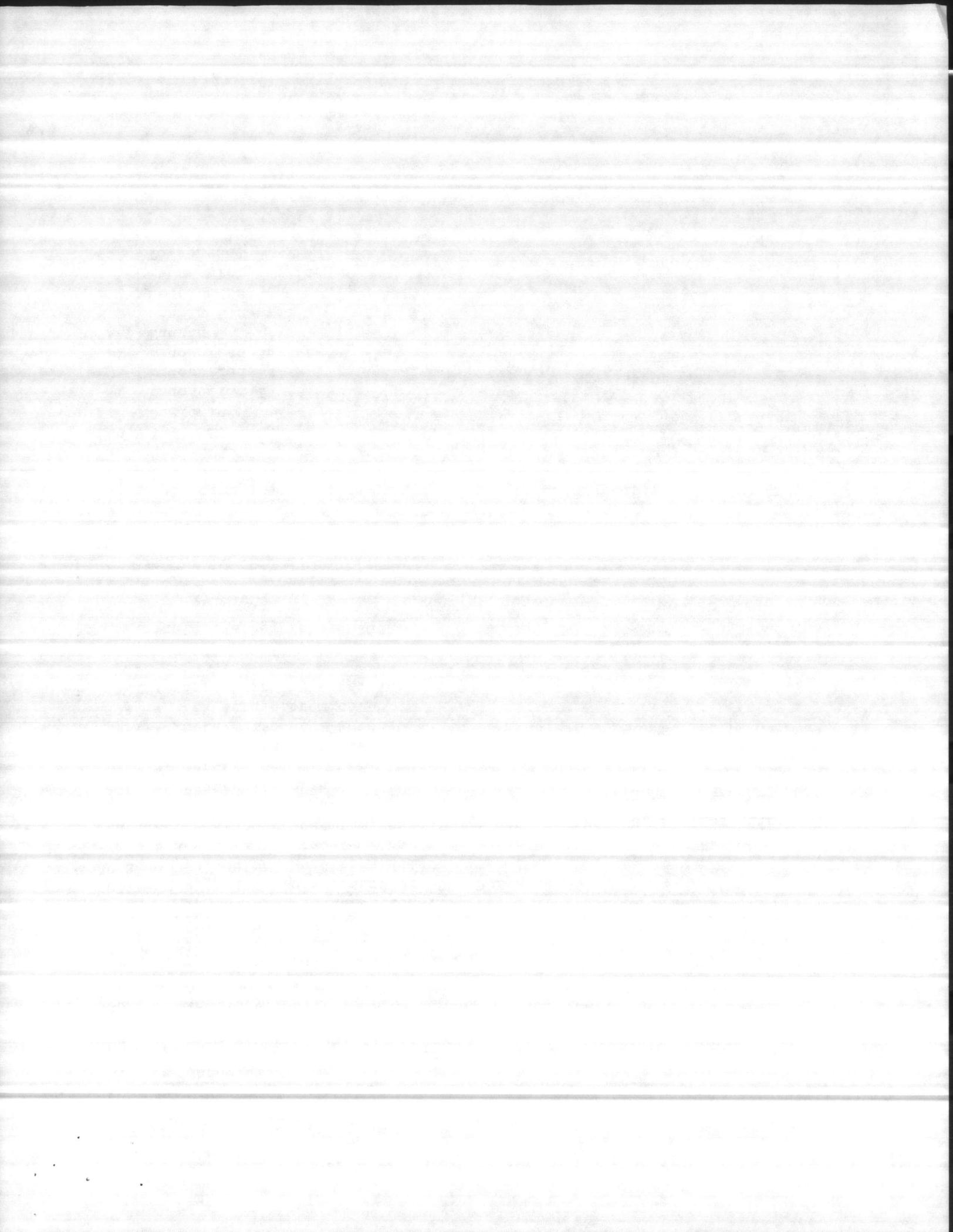


Key to Constituent Abbreviations:

Cd = Cadmium.
Cr = Chromium.
Cr⁺⁶ = Hexavalent chromium.
Pb = Lead.
Sb = Antimony.
O&G = Oil and grease.
VOA = Volatile organic analysis.
T. Phenols = Total phenols.
OCP = Organochlorine pesticides.
OCH = Organochlorine herbicides.
DDT-R = o,p- and p,p'-isomers of DDD, DDE, and DDT.
PCB = Polychlorinated biphenyls.
Metals A = Arsenic, cadmium, chromium, copper, lead, nickel, selenium, and zinc.
Metals B = Arsenic, cadmium, chromium, lead, mercury, nickel, and zinc.
Ordinance Compounds = TNT, DNT, RDX, and white phosphorus (WP)
PCP = Pentachlorophenol.
Hg = Mercury.
MEK = Methyl ethyl ketone.
MIBK = Methyl isobutyl ketone.
EDB = Ethylene dibromide.
SDWA = Safe Drinking Water Act.

Organochlorine Pesticides (OCP)

Aldrin
a-BHC
b-BHC
d-BHC
g-BHC
Chlordane
4,4'-DDD
4,4'-DDE
4,4'-DDT
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Heptachlor
Heptachlor Epoxide
Toxaphene



Organochlorine Herbicides (OCH)

2,4-D
2,4,5-T
Silvex

DDT-R

o,p-DDD
o,p-DDE
o,p-DDT
p,p'-DDD
p,p'-DDE
p,p'-DDT

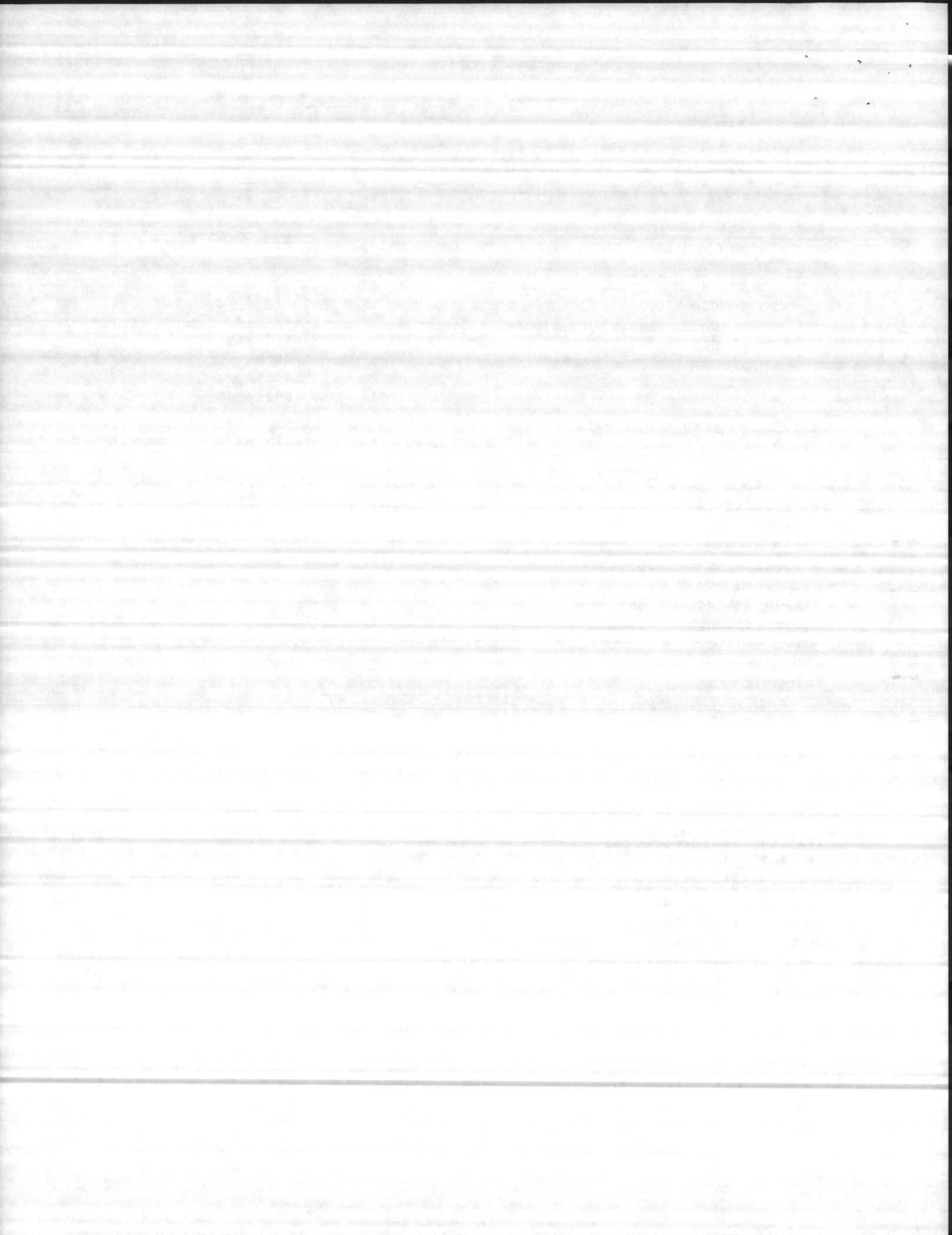
Volatile Organic Analysis

VOA

Acrolein
Acrylonitrile
Benzene
Bromomethane
Bromodichloromethane
Bromoform
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
Dibromochloromethane
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
T-1,2-Dichloroethene
1,2-Dichloropropane
Cis-1,3-dichloropropene
T-1,3-dichloropropene
Ethylbenzene
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichlorofluoromethane
Toluene
Vinyl Chloride
2-Chloroethylvinylether

Safe Drinking Water Act Analyses

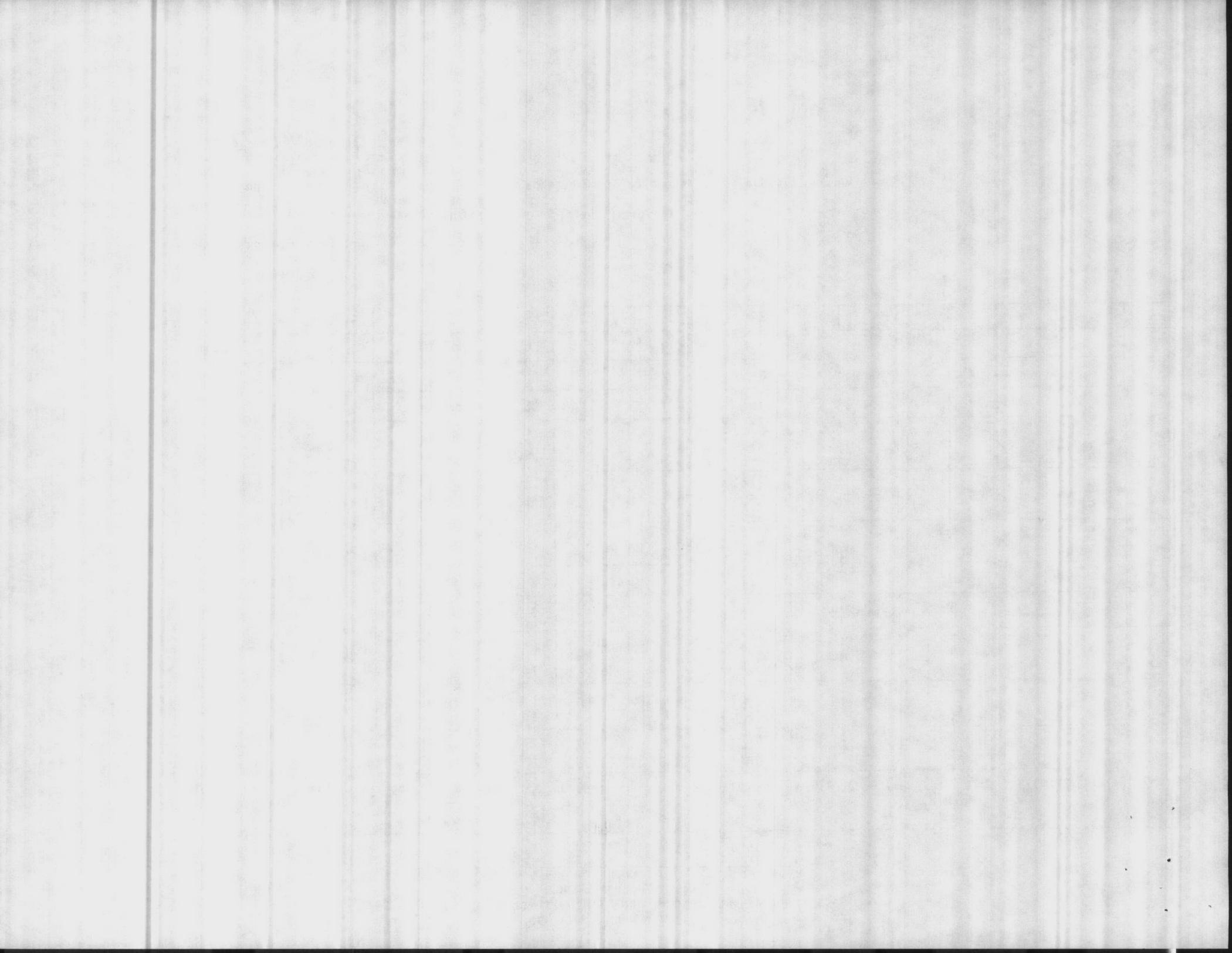
Arsenic
Barium
Cadmium
Chromium
Lead
Mercury
Selenium
Silver
Nitrate
Flouride
Turbidity
Endrin
Lindane
Methoxychlor
Toxaphene
2,4-D
2,4,5-TP Silvex
Radium 226 and 228
Gross Alpha



CONFIRMATION STUDY
 SUMMARY OF 1A STEP VERIFICATION STUDY SAMPLING RECOMMENDATIONS
 ROUND 2 SAMPLING
MARINE CORPS AIR STATION, CHERRY POINT, NORTH CAROLINA

Site No.	Wells		Total Number of Samples				CONSTITUENTS															
	New(a)	Exist.	Well Water	Surface Water	Sed.	Soil	HSL(b)			pH	Cr(6+)	CN	EDB	Asbestos	PCB	O&G(c)	Phenolics	EP(d)		Metals(f)	GC(g) Fuel	
							Full	Org.	VOA									TOX	TCDD			GWCI(e)
1 & 2	2	5	7				X			X	X	X	X									
4		5	5	1		5	X			X	X	X	X		X							
5	1	6	7	1	1		X	X		X			X		X	X			X		Pb Pb	X
6		4	4						X	X							X				X, AS	
7	1	2	3	3	3		X			X	X		X									
10		23(h)	23	5	5		X	X				X									X	
13		8 4	8 4						X				X			X					Pb	X
15		6	6	3	8				X	X		X					X		X		X	
16	2	4	6				X			X	X	X	X									
17					3										X					X		
19&21	1	7	8				X			X	X		X									
21					5										X							

- (a) New Well recommended for Round 2 sampling.
- (b) Hazardous Substances List.
- (c) Oil and Grease concentration levels and measurement of petroleum, oil, and lubricant layer.
- (d) Cd, Cr, Pb
- (e) Groundwater Contaminant Indicators: specific conductance, pH, total organic halogens, total organic carbon.
- (f) Metals: (Cu, Cr, Pb, Zn, Cd, Ni, Ag), unless otherwise noted.
- (g) Fuel characterization by gas chromatograph. Standards to include heating oil.
- (h) Includes 13 existing monitoring wells and 10 potable wells.



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

FEB 3 1986

REF: 4WD-ER

Commander
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511- 6287

Attention: J. R. Bailey, P.E.
Environmental Quality Branch

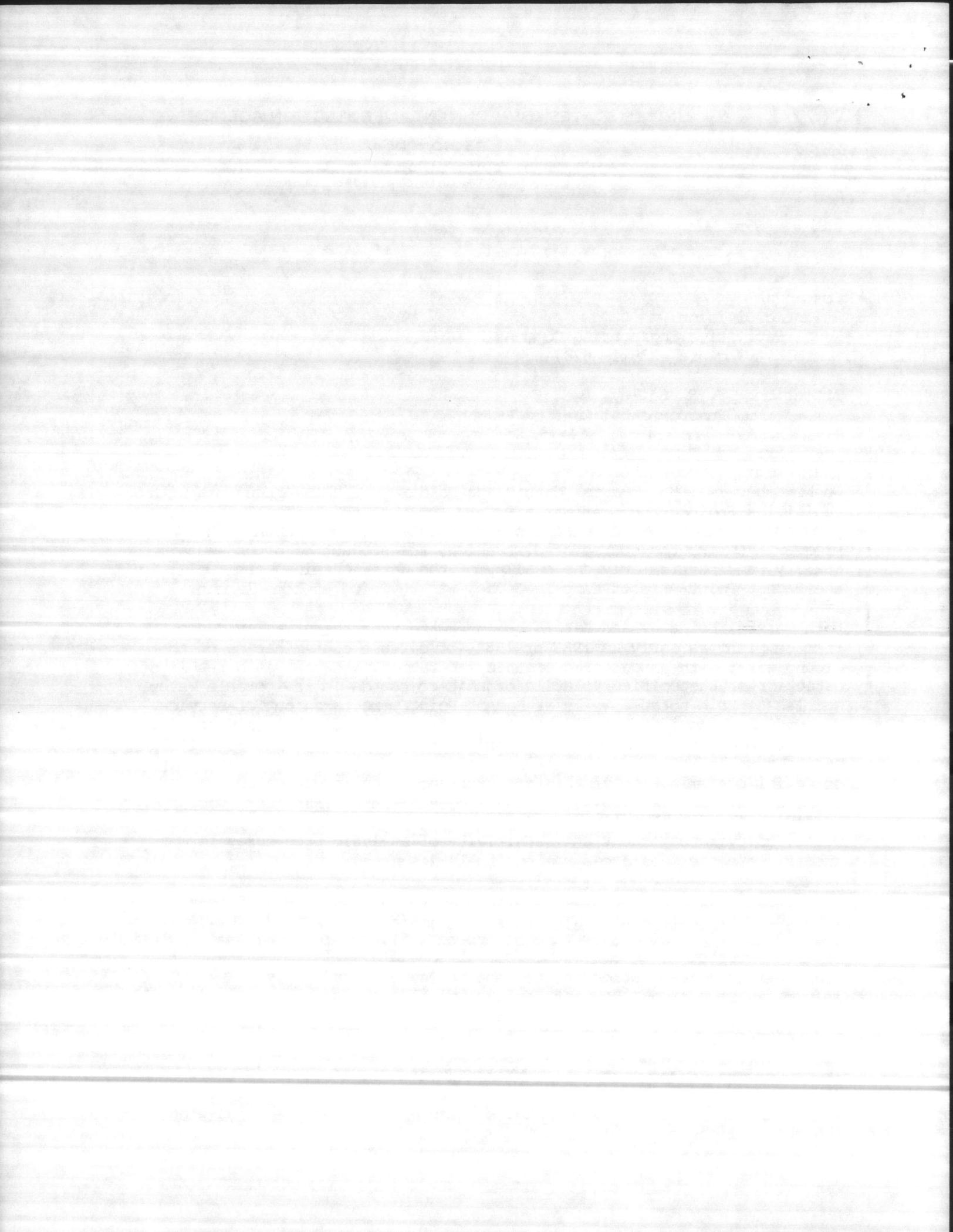
Dear Sir:

On November 1, 1985, Messrs. Mathis and Holdaway of this Agency met with Facilities Engineering Staff at MCB Camp Le Jeune to review activities and progress in assessment of past waste disposal practices through the NACIP program. During the course of discussion, the subject of ground water quality, and particularly the quality of the water obtained from wells in the Hadnot Point Area of Camp Le Jeune, was reviewed at some length.

Both Messrs. Holdaway and Mathis became aware that there was evidence, from sampling as early as 1983 or 1984, of diffuse contamination of the ground water with unspecified organic substances, and that as a result of detection of unspecified volatile organic compounds in raw potable water samples certain potable wells at Hadnot Point were taken out of service. In consideration of the fact that the major portion of the resident population of Camp Le Jeune, is dependent on the Hadnot Point well field as its potable water supply, the parties in the meeting agreed that any potential contamination of this resource should be investigated as expeditiously as practical. It was also established that there was no contamination detected in treated potable water distributed at Camp Le Jeune, however the extent and sensitivity of analytic procedures for specific organic substances was not fully discussed.

Mr. Mathis suggested it would be desirable to analyze ground water samples from the monitoring wells involved in the NACIP confirmation studies for the 129 priority pollutants (CFR261 Appendix 8), and that the same analysis should be performed on raw water from all potable wells to insure that there was no contamination of the Camp Le Jeune water supply. When EPA informally requested a copy of the analytical results from monitoring wells and potable wells, we were advised that these data were still in raw form and under review.

If these data are now available, please furnish us a copy. If these data have not been published yet, we would appreciate a brief description of what substances were analyzed, what substances were detected, and when the data will be available.

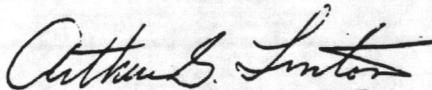


This Agency is concerned that a potential for human exposure to hazardous substances and hazardous wastes via the Camp Le Jeune water supply may exist due to the presence of such materials in ground water in the general vicinity of the potable well field. The existence of such a potential exposure would warrant consideration of this area for inclusion on the National Priority List, with an attendant increase in the expediency of investigation and remediation.

We appreciate your assistance in obtaining these data in order that this potentially significant problem may be addressed.

If you have any questions, please do not hesitate to contact me at (404) 347-3776 or FTS 257-3776.

Sincerely,



Arthur G. Linton, P.E.
Regional Federal Facilities Coordinator
Environmental Assessment Branch
Office of Policy and Management

cc: Commander, MCS Camp Le Jeune
Lee Herwig
Paul Hubbell, Navy Department, Washington, DC

