OFF-SITE RESIDENTIAL WELL WATER DATA EVALUATION REPORT

INSTALLATION RESTORATION PROGRAM NAVAL SUBMARINE BASE - NEW LONDON GROTON, CONNECTICUT

Prepared For:

Northern Division
Naval Facilities Engineering Command
10 Industrial Highway
Lester, PA 19113-2090

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TABLE OF CONTENTS

LIST OF FIGURES

TABLE OF CONTENTS
(continued)

SECTION **PAGE**

LIST OF TABLES

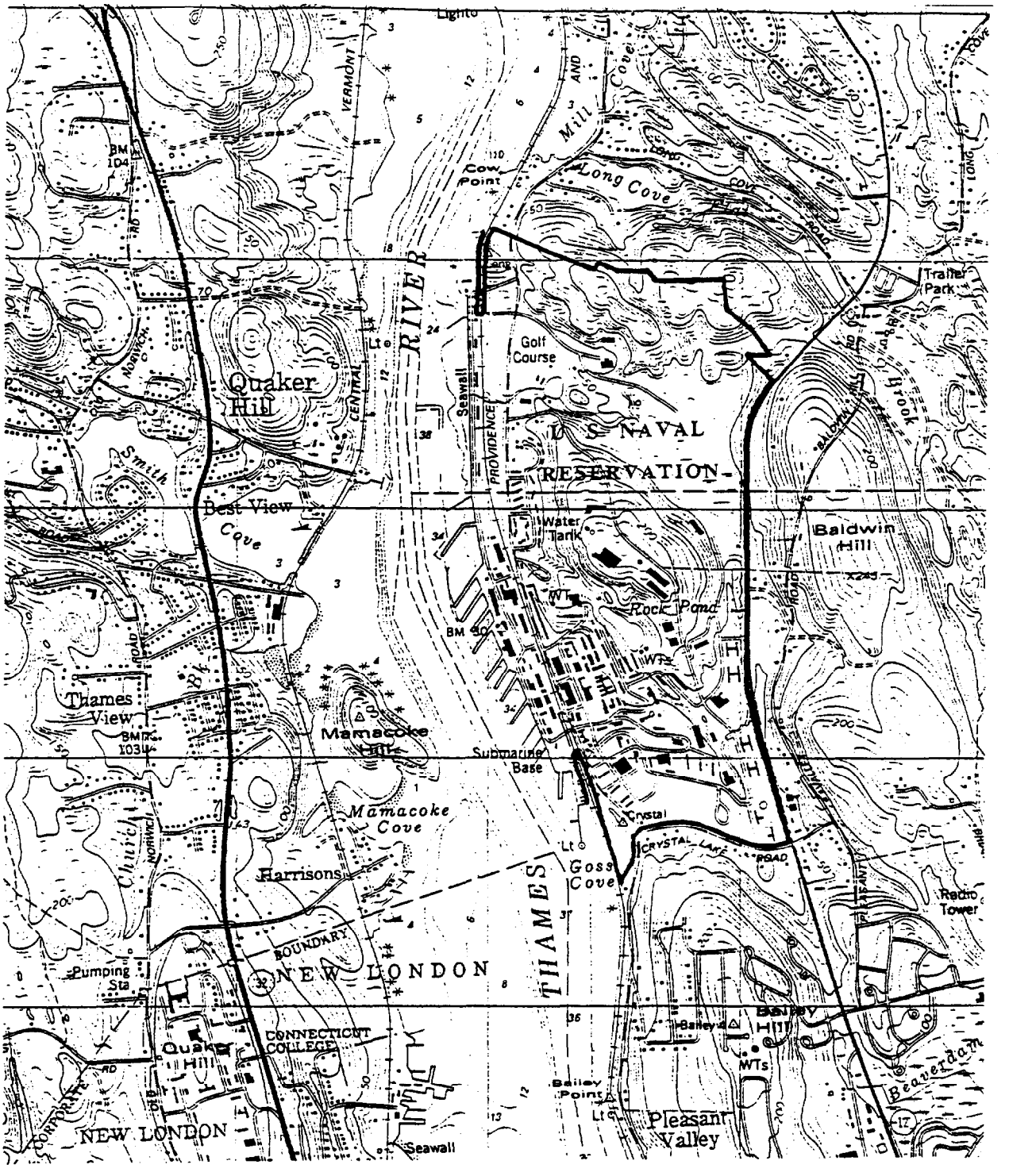
LIST OF APPENDICES

1.0 INTRODUCTION

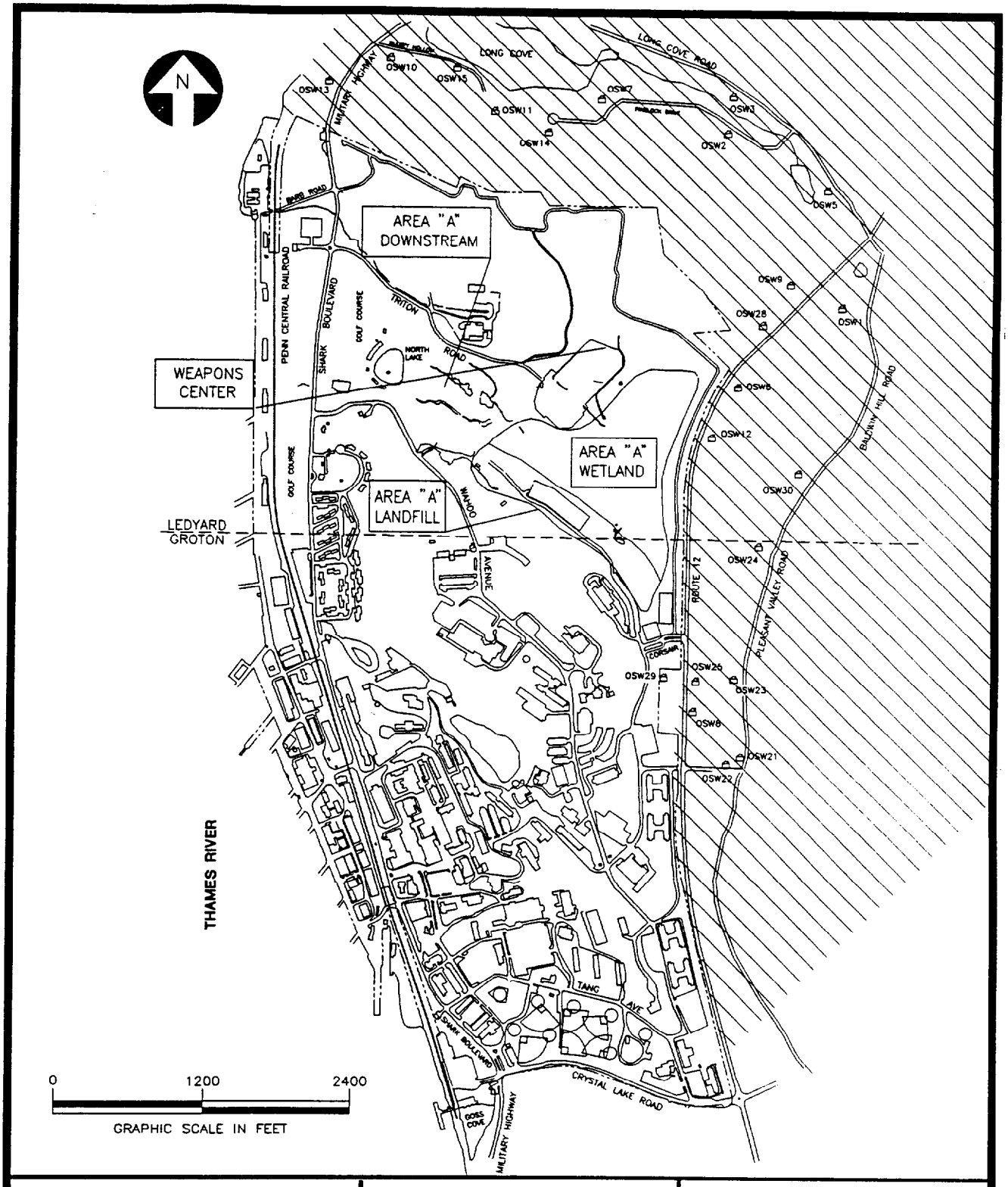
1.1 Project Objectives

The primary objective of the off-site residential well sampling program was to assess potential impacts on nearby groundwater quality relating to historic waste management and disposal practices at NSB-NLON. Groundwater is used as a source of potable water by the local homeowners. The site vicinity is indicated in Figure 1-1 and the study area is shown in Figure 1-2.

A total of seven rounds of sampling were conducted to assess potential impacts to groundwater quality in off-site residential wells. The sampling and analysis program was conducted in two phases. The first phase includes the first three sampling rounds (December 1990 to July 1991) and was initiated as part of the Phase I Remedial Investigation to address concerns of possible off-site migration of contaminants in groundwater from NSB-NLON. The second phase of sampling (March 1993 to December 1993) included the remaining four sampling rounds. These rounds were initiated to address elevated levels of boron detected during the first phase of sampling and to be used in conjunction with additional data to be collected at the Area A site during implementation of the Phase II RI. The results of the residential well sampling and the groundwater hydrogeological data collected during the Phase II RI by Halliburton will be used to make a final determination regarding potential impacts to nearby residential well water quality. A preliminary determination has been made indicating that NSB-NLON does not appear to be impacting residential well water quality. Prior to initiation of the second sampling phase, it was determined that the boron levels detected were likely erroneous due to laboratory instrument error. A decision was made to change laboratories and proceed with the proposed second stage of sampling to ensure that the previously detected boron was in fact erroneous and



INSTALLATION RESTORATION STUDY NAVAL SUBMARINE BASE - NEW LONDON GROTON, CT	SOURCE: Uncasville, CT U.S.G.S. Topographic Map 1984 N	FIGURE 1-1 SITE LOCATION ATLANTIC ENVIRONMENTAL SERVICES, INC.



INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE - NEW LONDON
GROTON, CT

LEGEND

OSW30 OFF-SITE RESIDENTIAL WELL

SOURCE: Naval Submarine Base
Existing Conditions
April 1985
Loureiro Engineering Associates

FIGURE 1-2
RESIDENTIAL WELLS
STUDY AREA

ATLANTIC ENVIRONMENTAL SERVICES, INC.

to gather data that will ultimately be required to aid in the final determination regarding potential impacts NSB-NLON may have nearby off-site groundwater quality.

2.0 RESIDENTIAL WELL SAMPLING

2.1 Site Background

A total of seven rounds of sampling was performed in two stages at homes located to the North and East of NSB-NLON. Homes located south of NSB-NLON were not included in this investigation because these homes are connected to the town of Groton public water supply. Table 2-1 indicates the frequency of sampling for each individual residence and the approximate well depth. Well depths are based on Department of Health records and homeowner knowledge when provided. Sampling and analysis methods were as specified in Atlantic Procedure No. 1256 as presented in the draft Plan of Action entitled *Investigation of Boron in Groundwater and Establishment of Background Concentrations of Inorganics in Soil* (Atlantic, October 1992). As part of the sampling Standard Operating Procedure (SOP), the sampling logs were kept. The first log prepared for each sample location is included in Appendix A. These logs detail the exact location of sample collection and other pertinent data regarding each residential water supply system.

The groundwater chemical concentrations were compared to established Applicable, Relevant, and Appropriate Requirements (ARARs) and "to be considered" (TBC) values. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund cleanups pursuant to Section 121(d) of SARA must attain Federal and State ARARs. As defined further in the National Contingency Plan, applicable requirements mean those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, requirements, or other circumstance at a CERCLA site.

If a requirement is not applicable, it still may be relevant and appropriate. Relevant and

TABLE 2-1
RESIDENTIAL WELL SAMPLING FREQUENCY

Sample ID	Address	Approximate Well Depth	Stage 1 Sampling Rounds			Stage 2 Sampling Rounds[4]			
			RD-1[1]	RD-2[2]	RD-3[3]	RD-4	RD-5	RD-6	RD-7
			12/90	2/91	7/91	3/93	6/93	9/93	12/93
OSW-1	1488 Route 12	15	●			●	●	●	●
OSW-2	7 Pinelock Dr	165	●			●	●	●	●
OSW-3	1053 Long Cove Road	80	●			●	●	●	●
OSW-5	1037 Long Cove Road	--	●			●	●	●	●
OSW-6	1458 Route 12	350	●	●	●	●	●	●	●
OSW-7	40 Pinelock Dr	--	●			●	●	●	●
OSW-8	1292 Route 12	90	●	●		●	●	●	●
OSW-9	1477 Route 12	--	●	●		●	●	●	●
OSW-10	10 Sleepy Hollow Ptwy	--	●			●	●	●	●
OSW-11	18 Sleepy Hollow Ptway	200	●			●	●	●	●
OSW-12	1444 Route 12	50	●	●	●				
OSW-13	162 Military Hwy	270	●			●	●	●	●
OSW-14	48 Pinelock Dr	300	●			●	●	●	●
OSW-15	16 Sleepy Hollow Ptway	--	●	●		●	●	●	●
OSW-21	1140 N. Pleasant Valley Rd	64		●	●	●	●	●	●
OSW-22	1130 N. Pleasant Valley Rd	64		●		●	●	●	●
OSW-23	1198 N. Pleasant Valley Rd	--		●		●	●	●	●
OSW-24	1298 N. Pleasant Valley Rd	--		●	●	●	●	●	●
OSW-25	1320 Route 12	--		●	●	●	●	●	●
OSW-28	1469 Route 12	--		●	●				
OSW-29	1323 Route 12	120		●					
OSW-30	1319 Baldwin Hill Road	--		●		●	●	●	●
OSW-32	160 Military Hwy	125			●		●	●	
OSW-33	150 Military Hwy	--				●	●	●	●
OSW-34	152 Military Hwy	--				●	●	●	●

NOTES:

1. Analyses performed included: Target Compound List (TCL) volatiles, TCL semi-volatiles, TCL pesticides/PCBs, TAL inorganics, boron, and cyanide.
2. Analysis performed include: Target Analyte List (TAL) metals, boron, and cyanide for all locations; TCL volatiles at OSW-15 only.
3. Analyses performed included: TAL metals, boron and cyanide for all locations; as well as TCL volatiles, semivolatiles and pesticides/PCBs for OSW-32 only.
4. Analyses performed included: TAL metals, boron, cyanide, and chloride for all wells.

appropriate requirements mean those cleanup standards that address problems or situations sufficiently similar to those encountered at the CERCLA site, that their use is well suited to the particular site.

In addition to ARARs, other state or federal advisories, criteria, or guidance can be identified as ''to be considered'' (TBC) for a particular release. The TBC category consists of any state or federal guidance that may be useful in evaluating site chemical concentrations or developing a remedy. The chemical-specific values for TBCs are included as a screening criteria. Final decisions will consider these TBCs, however, they will weigh more heavily on ARARs and the health and environmental risk assessment. It should be noted that some ARAR and TBC values may have changed over the course of the project, as state and federal agencies review and update their guidelines.

Presented below is a brief explanation regarding the major ARAR/TBCs presented in this report:

- Maximum Contaminant Level Goal (MCLG): MCLGs are established by EPA under the Safe Drinking Water Act (SWDA) at the level at which no known or anticipated adverse effects on the health of persons occur and which allow an adequate margin of safety. MCLGs are nonenforceable health goals.

- Maximum Contaminant Level (MCL): MCLs are enforceable standards which the SWDA directs Environmental Protection Agency (EPA) to set as close to MCLGs as feasible. Feasible means feasible with the use of the best technology or treatment techniques.

- Secondary Maximum Contaminant Level (SMCL): SMCLs are not federally enforceable standards but instead offer guidance to water supply companies and states based upon odor, aesthetics and appearance.

- Action Level (AL): ALs are measured in the 90th percentile at public water supply consumers' taps, and if exceeded triggers treatment technique requirements to be met by the water supply company.

- Health Advisory (HA): HAs are prepared by the EPA under the SWDA. A HA summarizes available data concerning the occurrence and health effects of

a specific contaminant or mixture as well as analytical methods and treatment technologies for that contaminant.

- Connecticut Maximum Contaminant Level (CTMCL): CTMCL is similar to an MCL; the major differences is that a CTMCL is only an enforceable standard in the State of Connecticut. CTMCLs are developed by the Connecticut Department of Health Services.

- Connecticut Department of Health Services Action Level (CTDOHS action level): These levels are developed by the CTDOHS and are the level of concentration of a contaminant for which no state or federal MCL exists, but for which the CTDOHS recommends a course of action to be taken to reduce risk.

The tables only contain one ARAR/TBC value for each parameter which was selected based upon the following hierarchy: the lower of federal or state MCL, MCLG, SMCL, the lower of federal or state ALs, and HA. For example, if a constituent has both state and federal MCL values and a health advisory, the lower of its state and federal MCL values would be presented in the table regardless of its HA value.

During the first stage of sampling, in addition to inorganics, analyses of volatile organics, semi-volatile organics, pesticides, and PCBs was performed at selected locations. The only incidence of compounds other than inorganics being detected, occurred during the first round of sampling. These compounds include low levels of chloromethane, methylene chloride, and xylene at OSW15 (16 Sleepy Hollow), and a very low level of the semi-volatile bis(2-ethylhexyl)phthalate at OSW6 (1458 Rt 12). These compounds were detected at concentrations below the established ARAR and TBC values. Analytical results are presented in Table 2-2.

Analyses of groundwater for organic compounds during the remaining rounds of the first stage of sampling indicated that no organic contamination was present in off-site residential wells. However, several instances of elevated inorganics in groundwater were detected. Based on these findings, the stage two sampling rounds were focused on inorganics which include Target Analyte List (TAL) metals, boron, cyanide, and chloride.

TABLE 2-2
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

			SAMPLE IDENTIFICATION/LOCATION													
			OSW01							OSW02						
	ARAR/TBC [1]		Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
PARAMETER	VALUE	SOURCE [2]	1488 Route 12							7 Pinelock Drive						
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	62.1 J	NA	NA	34.9	35.2 J	121 J	475 U	96 J	NA	NA	88.5	39.8 J	61.9 J	352
Antimony	6	MCL	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	43.8 J	NA	NA	35.2	37.3 J	36.7 J	66.3 J	ND	NA	NA	11.3	10.4 J	3.2 J	20.9 J
Beryllium	4	MCL	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		11200	NA	NA	9690	7840	7890	10200	5610	NA	NA	6070	8340	6580	4810 J
Chromium	50	CTMCL	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U	ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	30.6	NA	NA	41	34.1	309	79.5 J	66.3	NA	NA	12.5	7.4 J	2.4 J	16.9 J
Iron	300	SMCL	203	NA	NA	32.1	27.3 J	549	21.1 J	204	NA	NA	30.6	28.8 J	78.4 J	308
Lead	15	MCL	ND	NA	NA	1.1	9.6	54.3	5 U	8.4	NA	NA	6.5	1.1 J	1.7 U	1.5 J
Magnesium	--		1900 J	NA	NA	1560	1340 J	1540 J	2070 J	1040 J	NA	NA	1100	1270 J	1140 J	992 J
Manganese	200	DMCLG	11.1 J	NA	NA	4.8	5.3 J	40.6	9.6 U	14.4 J	NA	NA	11.6	9.4 J	1 U	63.9
Mercury	2	MCL	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.13 J	0.4	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	ND	NA	NA	11 U	8 U	8.4 U	8.4 U	ND	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		766 J	NA	NA	731	1630 J	1610 J	2070 J	ND	NA	NA	598	824 J	672 J	907 J
Selenium	10	CTMCL	ND	NA	NA	1.2	1.5 J	1.8 J	2.3 U	ND	NA	NA	1 U	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U	ND	NA	NA	3 U	3.4 J	2 J	1.9 U
Sodium	20000	DHA	34600	NA	NA	37200	35400	30700	46900	3720 J	NA	NA	3640	3790 J	3690 J	3160 J
Thallium	2	MCL	ND	NA	NA	2 U	1.2 U	1.6 J	2.2 U	ND	NA	NA	2 U	1.2 U	1.3 U	2.2 U
Vanadium	20	DHA	ND	NA	NA	5 U	5 U	3.9 U	3.9 U	ND	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	13.3 J	NA	NA	33.7	21	61.5	19.4 J	12.9 J	NA	NA	8.9	6.3 J	14.7 J	4.5 J
Boron	600	DHA	2000 R	NA	NA	21.1	20.1 J	26.3 J	19.1 U	1000 R	NA	NA	20 U	27.5 J	11.9 U	21.5 J
Chloride	250000	SMCL	NA	NA	NA	57000	64000	46000	74000	NA	NA	NA	5000	3000	4000	3000
Cyanide (total)	200	MCL	ND J	NA	NA	1.8 U	1.8 J	1.4 J	0.95 U	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

			SAMPLE IDENTIFICATION/LOCATION													
			OSW03							OSW05						
	ARAR/TBC [1]		Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
PARAMETER	VALUE	SOURCE [2]	1053 Long Cove Road							1037 Long Cove Road						
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	44.3 J	NA	NA	21.6 U	15.4 J	148 J	24.7 U	51.4 J	NA	NA	21.6 U	25.2 J	73.4 J	15.6 U
Antimony	6	MCL	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	NA	NA	1 U	0.5 U	2.4 U	2.4 U	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	43.6 J	NA	NA	85.2	72.3 J	84.2 J	82.9 J	30.4 J	NA	NA	24.5	16.9 J	14.8 J	34.2 U
Beryllium	4	MCL	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	ND J	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		26200	NA	NA	28000	35600	46000	22200	10700	NA	NA	10800	9400	9400	12200
Chromium	50	CTMCL	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 J	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		ND	NA	NA	2.6	2.6 U	1.9 U	15.9 U	ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	29.1	NA	NA	194	269	301 J	211 J	388	NA	NA	220	157	277	540 J
Iron	300	SMCL	198	NA	NA	105	112	3250 J	599	603	NA	NA	48.9	26.2 J	1490	33.8 U
Lead	15	MCL	2.4 J	NA	NA	2.9 U	3.8	57.5 J	2.8 U	4.6 J	NA	NA	20.1	7.8	17.8	3.6 U
Magnesium	--		3190 J	NA	NA	3690	4430 J	5810	3040 J	1820 J	NA	NA	1700	1450 J	1430 J	1910 J
Manganese	200	DMCLG	244	NA	NA	891	480	582	2130	9.2 J	NA	NA	5.4	3.4 J	1 U	6.1 U
Mercury	2	MCL	ND	NA	NA	0.2 U	0.1 U	0.04 U	0.16 J	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	ND	NA	NA	11 U	8 U	8.4 U	8.4 U	ND	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		1720 J	NA	NA	17900	15800	13100	8540	1280 J	NA	NA	1500	1250 J	1420 J	1850 J
Selenium	10	CTMCL	ND	NA	NA	1 U	1.1 U	2.3 U	2.3 U	2.1 J	NA	NA	1 U	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	32000	NA	NA	29100	33200	41600	31000	10300	NA	NA	9210	5880	6290	16000
Thallium	2	MCL	ND	NA	NA	2 U	1.2 U	2.2 U	2.2 U	ND	NA	NA	2 U	1.2 U	1.3 U	2.2 U
Vanadium	20	DHA	ND	NA	NA	5 U	5 U	3.9 U	3.9 U	ND	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	184	NA	NA	7.1 U	19 J	1.8 U	12.6 U	21.3 J	NA	NA	23.8	10.7 J	20.4	23.2
Boron	600	DHA	2000 R	NA	NA	30.1 U	22.9 J	11.9 U	18.1 U	2000 R	NA	NA	28	34.4 J	11.9 U	11.9 U
Chloride	250000	SMCL	NA	NA	NA	95000	100000	120000	69000	NA	NA	NA	14000	7000	7000	25000
Cyanide (total)	200	MCL	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC 1 VALUE	ARAR/TBC 1 SOURCE 2	SAMPLE IDENTIFICATION/LOCATION: OSW06 1458 Route 12 Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	OSW07 40 Pinelock Drive Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	ND	ND J	21.8 J	21.6 U	17.4 J	16 J	14.3 U	ND	NA	NA	181	18 J	14.3 U	14.3 U
Antimony	6	MCL	ND	ND	ND	14.4 U	12.3 U	16.4 U	16.4 U	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	ND	ND	1 U	0.5 U	0.9 U	2.4 U	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	ND	ND	8.4 J	6.5 U	5.8 J	1.6 U	6.2 J	ND	NA	NA	8.8	4.6 J	1.6 U	7.8 U
Beryllium	4	MCL	ND	ND	ND	1 U	0.3 U	0.4 U	0.4 U	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	26.3	ND	ND	2.5 U	1.8 U	2.3 U	2.3 U	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		8590	6710	6360	7790	7160	7910	8140	12900	NA	NA	14300	10100	8930	15100
Chromium	50	CTMCL	ND	ND	ND	3.9 U	3.1 U	2.7 U	2.7 U	ND	NA	NA	6.3	3.1 U	2.7 U	2.7 U
Cobalt	--		ND	ND	ND	2.6 U	2.6 U	1.9 U	1.9 U	ND	NA	NA	2.6	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	48.2	221	158	276	273	227	358	87.6	NA	NA	50.7	95.4	138	98.7 J
Iron	300	SMCL	128	88.1 J	46.8 J	12.8 U	17 J	4.8 U	13.5 J	128	NA	NA	53.2	32.4 J	13.9 J	69.9 U
Lead	15	MCL	11	16.8 J	8 J	5.7 J	4.4	4.2	4.4	ND	NA	NA	3	2 J	1.7 J	2 U
Magnesium	--		2200 J	1660 J	1670 J	1750	1750 J	1990 J	1910 J	1340 J	NA	NA	1400	1140 J	1130 J	1460 J
Manganese	200	DMCLG	ND	ND J	2.1 J	1 U	0.89 J	1 U	2.7 J	ND	NA	NA	4.2	2.2 J	1 U	2.6 U
Mercury	2	MCL	ND	ND	ND	0.2 U	0.1 U	0.1 U	0.1 U	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	ND	ND	ND	11 U	8 U	8.4 U	8.4 U	ND	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		ND	ND	1230 J	931	934 J	874 J	1390 J	ND	NA	NA	1350	1170 J	946 J	1350 U
Selenium	10	CTMCL	ND	ND	ND	2.4 U	1.1 U	1.1 U	2.3 U	ND	NA	NA	1 U	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	ND	ND	5.8 J	3 U	2.9 U	1.9 U	1.9 U	ND	NA	NA	3 U	4.9 J	1.9 U	1.9 U
Sodium	20000	DHA	11000	8740	8820	9840	9210	9400	9450	4800 J	NA	NA	4810	4190 J	4210 J	4760 J
Thallium	2	MCL	ND	ND	ND	2 U	1.2 U	1.8 J	2.2 U	ND	NA	NA	2 U	1.2 U	1.6 J	2.2 U
Vanadium	20	DHA	ND	ND	ND	5 U	5 U	3.9 U	3.9 U	ND	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	16.7 J	22.7 J	25.1	21.8	24.6	27.1	25.2	13.2 J	NA	NA	11.5	11.8 J	17.1 J	21.7
Boron	600	DHA	1000 R	1160 R	1100 R	26.9 U	25.9 J	12.1 J	23 J	2000 R	NA	NA	34.8	21.7 J	11.9 U	30.2 U
Chloride	250000	SMCL	NA	NA	NA	16000	12000	15000	13000	NA	NA	NA	5000	4000	4000	4000
Cyanide (total)	200	MCL	ND J	ND	ND	1.8 U	1.8 U	1.2 U	0.95 U	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		3 J	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC [1] VALUE	ARAR/TBC [1] SOURCE [2]	SAMPLE IDENTIFICATION/LOCATION: OSW08 1292 Route 12 Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	OSW09 1477 Route 12 Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	33.8 J	ND	NA	35.9	52.6 U	17.8 J	30.4 U	38.1 J	ND	NA	25.4	20.1 J	14.3 U	14.3 U
Antimony	6	MCL	ND	ND	NA	14.4 U	12.3 U	16.4 U	16.4 U	ND	ND	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	ND	NA	1 U	0.5 U	2.4 U	2.4 U	ND	ND	NA	1 U	0.64 J	2.4 U	2.4 U
Barium	1000	CTMCL	38.6 J	50.1 J	NA	183	85.6 J	63.2 J	40.7 U	17.3 J	15.8 J	NA	14.2	12.7 J	1.6 U	13.4 U
Beryllium	4	MCL	ND	ND	NA	1 U	0.3 U	0.4 U	0.4 U	ND	ND	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	ND	ND	NA	2.5 U	1.8 U	2.3 U	2.3 U	ND	ND	NA	2.5 U	1.9 J	2.3 U	2.3 U
Calcium	--		6410	6990	NA	35400	17700	16800	10700	8190	6360	NA	8310	7800	9870	9400
Chromium	50	CTMCL	ND	ND	NA	3.9 U	3.1 U	2.7 U	2.7 U	ND	ND	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		ND	ND	NA	2.6 U	2.6 U	1.9 U	1.9 U	ND	ND	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	67.5	283	NA	127	63.4	65.6 J	79.1 J	271	247	NA	148	164	179 J	90.4 J
Iron	300	SMCL	75.3 J	60.7 J	NA	52 U	33.4 U	4.8 U	201	105	142 J	NA	54.8	37.6 J	4.8 R	55.2 U
Lead	15	MCL	8.6	5.9	NA	264 J	19 J	25.6 J	11.1	3.2 J	2.6 J	NA	1.8	1.2 J	2.1 J	1.3 U
Magnesium	--		1280 J	1310 J	NA	5580	3410 J	3140 J	1870 J	1170 J	914 J	NA	1080	1100 J	1330 J	1300 J
Manganese	200	DMCLG	3.5 J	3.4 J	NA	10.4	2.5 U	1 U	15.4 U	11.2 J	7.6 J	NA	10.2	9.3 J	1 U	15.2 U
Mercury	2	MCL	ND	ND	NA	0.2 U	0.1 U	0.04 U	0.1 U	ND	ND	NA	0.2 U	0.1 U	0.04 U	0.1 U
Nickel	100	PMCL	ND	ND	NA	11 U	8 U	8.4 U	8.4 U	ND	ND	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		1380 J	1440 J	NA	3740	2780 J	2980 J	1280 U	ND	ND	NA	522	489 J	202 U	626 U
Selenium	10	CTMCL	ND	ND	NA	2.6 U	1.1 U	2.3 U	2.3 U	ND	1 J	NA	1 U	2.4 J	2.3 U	2.3 U
Silver	50	CTMCL	ND	ND	NA	3 U	2.9 U	1.9 U	1.9 U	ND	ND	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	28600	34600	NA	97700	59000	33100	28600	4210 J	3540 J	NA	3730	3780 J	4290 J	4060 J
Thallium	2	MCL	ND	ND	NA	2 U	1.2 U	2.2 U	4.3 J	ND	ND	NA	2 U	1.8 J	2.9 J	2.2 U
Vanadium	20	DHA	ND	ND	NA	5 U	5 U	3.9 U	3.9 U	ND	ND	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	32.6 J	62 J	NA	196	61.5	1.8 U	30.2	23.2 J	34.4 J	NA	10.8	7.4 J	1.8 U	7.3 U
Boron	600	DHA	2000 R	1270 R	NA	40.6 U	42.2 U	11.9 U	34 U	1000 R	770 R	NA	39.6	8.8 U	11.9 U	11.9 U
Chloride	250000	SMCL	NA	NA	NA	180000	91000	44000	24000	NA	NA	NA	5000	4000	4000	4000
Cyanide (total)	200	MCL	ND J	ND	NA	1.8 U	1.8 U	1.2 U	1.4 J	ND J	ND	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC 1 VALUE	ARAR/TBC 1 SOURCE 2	OSW10 Dec. 1990	OSW10 Feb. 1991	OSW10 July 1991	OSW10 March 1993	OSW10 June 1993	OSW10 Sept. 1993	OSW10 Dec. 1993	OSW11 Dec. 1990	OSW11 Feb. 1991	OSW11 July 1991	OSW11 March 1993	OSW11 June 1993	OSW11 Sept. 1993	OSW11 Dec. 1993
			10 Sleepy Hollow Pentway							18 Sleepy Hollow Pentway						
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	3360	NA	NA	514	471	700	617	261 J	NA	NA	241	112 U	60.5 J	80.4 J
Antimony	6	MCL	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	38.9 J	NA	NA	23.7	20.4 J	25.3 J	35.5 U	16.5 J	NA	NA	11.8 U	9.7 U	4.7 J	10.5 J
Beryllium	4	MCL	ND	NA	NA	1 U	0.33 J	0.4 U	0.41 J	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		3200 J	NA	NA	3640	3110 J	3830 J	4920 J	4170 J	NA	NA	4120	4350 J	5490	4080 J
Chromium	50	CTMCL	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		ND	NA	NA	2.9	2.6 U	1.9 U	1.9 U	ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	500	NA	NA	1.9	1.6 U	1.3 U	15.5 U	15.4 J	NA	NA	22.3	1.6 U	18.7 J	1.9 J
Iron	300	SMCL	911	NA	NA	25.3	50 J	669	41 U	53.1 J	NA	NA	86.8 U	42.9 U	4.8 U	40.1 J
Lead	15	MCL	38.8	NA	NA	1.4	1 J	1.7 U	1.3 U	ND	NA	NA	3.1 U	1 U	2.2 J	1.3 U
Magnesium	--		797 J	NA	NA	779	715 J	857 J	1010 J	1020 J	NA	NA	1020	1040 J	1010 J	995 J
Manganese	200	DMCLG	226	NA	NA	59.1	58.2	51.1	66.9	15.7	NA	NA	10.2	7.4 J	1 U	7 J
Mercury	2	MCL	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	ND	NA	NA	11 U	8 U	8.4 U	8.4 U	ND	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		ND	NA	NA	346	530 J	563 J	702 U	ND	NA	NA	ND	290 J	202 U	670 J
Selenium	10	CTMCL	ND	NA	NA	1 U	1.1 U	1.1 U	2.3 U	ND	NA	NA	1 U	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	7810	NA	NA	5300	5080	7790	10000	3530 J	NA	NA	3370	3530 J	3640 J	3610 J
Thallium	2	MCL	ND	NA	NA	2 U	1.2 U	1.3 U	2.2 U	ND	NA	NA	2 U	1.4 U	1.3 U	2.2 U
Vanadium	20	DHA	ND	NA	NA	5 U	5 U	3.9 U	3.9 U	ND	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	42 J	NA	NA	11	14.5 J	11.9 J	28.6	33 J	NA	NA	8 U	6.2 U	9.8 J	6 J
Boron	600	DHA	1000 R	NA	NA	32.7	21.2 J	11.9 U	11.9 U	1000 R	NA	NA	20	8.8 U	11.9 U	11.9 U
Chloride	250000	SMCL	NA	NA	NA	10000	8000	13000	15000	NA	NA	NA	5000	4000	4000	5000
Cyanide (total)	200	MCL	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U	ND J	NA	NA	4.2	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC 1 VALUE	ARAR/TBC 1 SOURCE 2	SAMPLE IDENTIFICATION/LOCATION: OSW12 1444 Route 12 Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	OSW13 162 Military Highway Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	ND	47.2 J	ND	NA	NA	NA	NA	ND	NA	NA	21.6 U	25.7 J	14.3 U	14.3 U
Antimony	6	MCL	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	ND	ND	7 J	NA	NA	NA	NA	ND	NA	NA	7	9.2 J	8.3 J	2.8 J
Beryllium	4	MCL	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	ND	2.3 J	ND	NA	NA	NA	NA	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		9110	6580	6440	NA	NA	NA	NA	25000	NA	NA	28000	28100	29800	27900
Chromium	50	CTMCL	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	3.9 U	3.1 U	3 J	2.7 U
Cobalt	--		ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	70.4	19.5 J	27.5 J	NA	NA	NA	NA	31.4	NA	NA	26.3	17.6 J	32.6	27
Iron	300	SMCL	743	42.9 J	66 J	NA	NA	NA	NA	148	NA	NA	26.9	16.4 J	4.8 U	29.2 J
Lead	15	MCL	4.8 J	3.7 J	5.8 J	NA	NA	NA	NA	7.4	NA	NA	1 U	4	2.2 J	1.3 U
Magnesium	--		2300 J	1750 J	1720 J	NA	NA	NA	NA	1490 J	NA	NA	1630	1660 J	1950 J	1550 J
Manganese	200	DMCLG	4.5 J	ND	2.5 J	NA	NA	NA	NA	ND	NA	NA	1 U	0.7 U	1 U	1 U
Mercury	2	MCL	ND	ND	ND	NA	NA	NA	NA	1.3	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	ND	ND	17.5 J	NA	NA	NA	NA	ND	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		ND	1170 J	1010 J	NA	NA	NA	NA	ND	NA	NA	1280	1340 J	1400 J	1050 J
Selenium	10	CTMCL	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	1 U	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	11800	8950	9170	NA	NA	NA	NA	15100	NA	NA	17000	20700	32100	18900
Thallium	2	MCL	ND	ND	2.4 J	NA	NA	NA	NA	ND	NA	NA	2 U	1.2 U	1.3 U	2.2 U
Vanadium	20	DHA	ND	ND	ND	NA	NA	NA	NA	ND	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	30 J	14.8 J	33.6	NA	NA	NA	NA	12.3 J	NA	NA	6.7	6.3 J	11.4 J	5.6 J
Boron	600	DHA	1500 R	1180 R	1100 R	NA	NA	NA	NA	2000 R	NA	NA	27.4	36 J	11.9 U	11.9 U
Chloride	250000	SMCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26000	41000	68000	32000
Cyanide (total)	200	MCL	ND J	ND	ND	NA	NA	NA	NA	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

	ARAR/TBC [1]		SAMPLE IDENTIFICATION/LOCATION													
			OSW14							OSW15						
			Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
PARAMETER	VALUE	SOURCE [2]	48 Pinelock Drive							16 Sleepy Hollow Pentway						
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	46.5 J	NA	NA	21.6 U	18 J	14.3 U	14.3 U	46.5 J	NA	NA	21.6 U	12.8 U	14.3 U	22.4 J
Antimony	6	MCL	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U	ND	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	ND	NA	NA	1 U	0.5 U	0.9 U	2.4 U	ND	NA	NA	1 U	0.5 U	0.99 U	2.4 U
Barium	1000	CTMCL	99 J	NA	NA	114	80 J	91.3 J	90.6 J	ND	NA	NA	2.9	3.2 U	1.6 U	1.6 U
Beryllium	4	MCL	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U	ND	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U	ND	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		23400	NA	NA	28500	21800	26000	25100	3820 J	NA	NA	21000	20700	23500	22600
Chromium	50	CTMCL	ND	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U	ND	NA	NA	3.9 U	3.1 U	3.2 J	2.7 U
Cobalt	--		ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U	ND	NA	NA	2.6 U	2.6 U	1.9 U	1.9 J
Copper	1000	CTMCL	27.6	NA	NA	10.7	15.8 J	8.8 J	20.5 J	78.2	NA	NA	12.9	12 U	4 J	11.8 J
Iron	300	SMCL	63.3 J	NA	NA	14.1	16.6 J	45 J	25.4 J	85.3 J	NA	NA	53.5	38.7 U	4.8 U	50 J
Lead	15	MCL	2.4 J	NA	NA	3	1 U	1.7 U	1.3 U	8.4 J	NA	NA	1 U	1 U	1.9 U	1.3 U
Magnesium	--		1500 J	NA	NA	1600	1370 J	1600 J	1510 J	889 J	NA	NA	1770	1810 J	1970 J	1880 J
Manganese	200	DMCLG	ND	NA	NA	1 U	0.7 U	1 U	1.2 J	8.6 J	NA	NA	2.7	0.92 U	1 U	1.9 J
Mercury	2	MCL	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U	ND	NA	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	ND	NA	NA	11 U	8 U	8.4 U	8.4 U	ND	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		ND	NA	NA	745	762 J	906 J	1050 J	ND	NA	NA	1080	916 J	1200 J	1970 J
Selenium	10	CTMCL	ND	NA	NA	1 U	1.1 U	1.1 U	2.3 U	ND	NA	NA	1 U	1.1 U	1.2 U	2.3 U
Silver	50	CTMCL	ND	NA	NA	3 U	2.9 U	1.9 U	1.9 U	ND	NA	NA	3 U	2.9 U	1.9 U	4.3 J
Sodium	20000	DHA	5990 J	NA	NA	6710	5660	6700	6070	3330 J	NA	NA	8600	8580	9420	8450
Thallium	2	MCL	ND	NA	NA	2 U	1.8 J	1.6 J	2.2 U	ND	NA	NA	2 U	1.2 U	2 J	2.7 J
Vanadium	20	DHA	ND	NA	NA	5 U	5 U	3.9 U	3.9 U	ND	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	19.3 J	NA	NA	8	4.6 J	11.2 J	6.5 J	17.7 J	NA	NA	7.9	12.3 U	10.8 J	11.3 J
Boron	600	DHA	2000 R	NA	NA	24.3	8.8 U	37.6 J	12.9 J	1000 R	NA	NA	22.2	10.3 U	16.4 J	12.2 J
Chloride	250000	SMCL	NA	NA	NA	6000	4000	4000	4000	NA	NA	NA	5000	5000	4000	4000
Cyanide (total)	200	MCL	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U	ND J	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		ND	NA	NA	NA	NA	NA	NA	27 J	ND	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHSA	ND	NA	NA	NA	NA	NA	NA	4 J	ND	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	ND	NA	NA	NA	NA	NA	NA	2 J	ND	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)

NAVAL SUBMARINE BASE - NEW LONDON

OFF-SITE RESIDENTIAL WELLS

SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC [1] VALUE	ARAR/TBC [1] SOURCE [2]	SAMPLE IDENTIFICATION/LOCATION: OSW21 — 1140 North Pleasant Valley Road: Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	OSW22 — 1139 North Pleasant Valley Road: Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	NA	2040	ND	56.1	37.5 J	75.8 J	61.9 J	NA	82 J	NA	30.8	20.3 U	29.8 J	14.3 U
Antimony	6	MCL	NA	ND	ND	14.4 U	12.3 U	16.4 U	16.4 U	NA	ND	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	NA	ND	ND	1 U	0.5 U	2.4 U	2.4 U	NA	ND	NA	1 U	0.5 U	2.4 U	2.4 U
Barium	1000	CTMCL	NA	42.7 J	20 J	37.9	19.9 J	1.6 U	35.9 J	NA	29.8 J	NA	26.7	33.4 J	1.6 U	37.1 J
Beryllium	4	MCL	NA	ND	ND	1 U	0.3 U	0.4 U	0.4 U	NA	ND	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	NA	3.1 J	ND	2.5 U	1.8 U	2.3 U	2.3 U	NA	ND J	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	–		NA	7730	8700	9080	9620	15000	11600	NA	8710	NA	12300	15600	17900	22800
Chromium	50	CTMCL	NA	ND	ND	4.5	3.1 U	2.7 U	2.7 U	NA	ND	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		NA	ND	ND	2.6 U	2.6 U	1.9 U	1.9 U	NA	ND	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	NA	68.8	19 J	104	27.4	1.3 U	67.6	NA	107	NA	512	437	339 J	2160
Iron	300	SMCL	NA	21800	247 J	76.7	61.7 J	591 J	147	NA	67.6 J	NA	60.5	89.4 U	4.8 U	125
Lead	15	MCL	NA	18.1	7.8 J	9.2	1.8 J	11.2 J	10.8	NA	8	NA	6.3	4.6 U	3.6 J	9.4
Magnesium	--		NA	2070 J	2080 J	2300	2340 J	3520 J	2890 J	NA	2230 J	NA	2850	3490 J	3890 J	4620 J
Manganese	200	DMCLG	NA	270	9.1 J	18.7	7 J	1 U	21.4	NA	14.3 J	NA	5.4	6 U	1 U	8.3 J
Mercury	2	MCL	NA	ND	ND	0.2 U	0.1 U	0.04 U	0.1 U	NA	ND	NA	0.2 U	0.1 U	0.04 U	0.1 U
Nickel	100	PMCL	NA	ND	5 J	11 U	8 U	8.4 U	8.4 U	NA	ND	NA	11 U	8 U	8.4 U	8.4 U
Potassium	–		NA	1320 J	1960 J	1930	1940 J	2490 J	2750 J	NA	2260 J	NA	2270	2500 J	2830 J	3510 J
Selenium	10	CTMCL	NA	1 J	ND	1 U	1.1 U	2.3 U	2.3 U	NA	ND J	NA	1 U	1.1 U	2.3 U	2.3 U
Silver	50	CTMCL	NA	ND	ND	3 U	2.9 U	1.9 U	1.9 U	NA	ND	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	NA	10200	8600	16100	10400	13700	14600	NA	16200	NA	16300	21000	23500	20800
Thallium	2	MCL	NA	ND	ND	2 U	1.2 J	2.2 U	2.2 U	NA	ND	NA	2 U	4.4 U	2.2 U	2.2 U
Vanadium	20	DHA	NA	33.1 J	ND	5 U	5 U	3.9 U	3.9 U	NA	ND J	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	NA	16.3 J	28.2	17.5	7.7 J	1.8 U	15.3 J	NA	15.7 J	NA	19.9	15.1 J	1.8 U	222
Boron	600	DHA	NA	1200 R	1200 R	22.7	12.4 J	12.4 J	26.1 J	NA	1200 R	NA	20.1	8.8 U	11.9 U	21.3 J
Chloride	250000	SMCL	NA	NA	NA	27000	17000	37000	29000	NA	NA	NA	31000	47000	52000	56000
Cyanide (total)	200	MCL	NA	15.1	ND	15.5	1.8 U	1.2 U	0.95 U	NA	ND	NA	2.3	2 J	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	3	DLHA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	MCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	–		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	–		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC 1 VALUE	ARAR/TBC 1 SOURCE 2	SAMPLE IDENTIFICATION/LOCATION: OSW23 1198 North Pleasant Valley Road Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	OSW24 1298 North Pleasant Valley Road Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	NA	263	NA	281	196 J	71.1 J	393	NA	59.1 J	ND	27.1	29.1 J	15.8 J	14.3 U
Antimony	6	MCL	NA	ND	NA	14.4 U	12.3 U	16.4 U	16.4 U	NA	ND	ND	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	NA	ND	NA	1 U	0.5 U	2.4 U	2.4 U	NA	ND	ND	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	NA	30.9 J	NA	43	23.4 J	1.6 U	46.4 J	NA	26.8 J	27.8 J	31.7	33.3 J	27.4 J	34 J
Beryllium	4	MCL	NA	ND	NA	1 U	0.3 U	0.4 U	0.4 U	NA	ND	ND	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	NA	ND	NA	2.5 U	1.8 U	2.3 U	2.3 U	NA	2.8 J	ND	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		NA	5150	NA	6800	6150	7730	4960 J	NA	6650	8010	8950	10100	12500	8480
Chromium	50	CTMCL	NA	ND	NA	3.9 U	3.1 U	2.7 U	2.7 U	NA	ND	ND	4.8	3.1 U	2.7 U	2.7 U
Cobalt	--		NA	ND	NA	2.6 U	2.6 U	1.9 U	1.9 U	NA	ND	ND	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	NA	159	NA	398	136	131 J	231	NA	57.4	65	66.4	124	150	163
Iron	300	SMCL	NA	606	NA	134	90.2 J	4.8 U	37.2 J	NA	68.1 J	74.8 J	46.8	38.7 J	55.8 J	78.2 J
Lead	15	MCL	NA	32.2	NA	3.7 U	5	1.6 J	2.3 J	NA	4.1 J	5.4 J	3.7	2.4 J	1.9 J	2.6 J
Magnesium	--		NA	1770 J	NA	2100	1860 J	1840 J	1820 J	NA	1480 J	1780 J	1850	2270 J	2650 J	2180 J
Manganese	200	DMCLG	NA	56.7	NA	50.9	42.4	1 U	54	NA	12.4 J	17.2	13.3	12.5 J	15.3	24.4
Mercury	2	MCL	NA	ND	NA	0.2 U	0.1 U	0.04 U	0.1 U	NA	ND	ND	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	NA	ND	NA	11 U	8 U	8.4 U	8.4 U	NA	ND	ND	11 U	8 U	8.4 U	8.4 U
Potassium	--		NA	1520 J	NA	1930	1540 J	1910 J	2630 J	NA	1750 J	2160 J	1840	1900 J	2550 J	2500 J
Selenium	10	CTMCL	NA	ND	NA	1 U	1.1 U	2.3 U	2.3 U	NA	ND	ND	4.1	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	NA	ND	NA	3 U	2.9 U	1.9 U	1.9 U	NA	ND	ND	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	NA	11800	NA	17900	11300	12300	13800	NA	28000	24900	37500	41700	29500	33900
Thallium	2	MCL	NA	ND	NA	2 U	1.6 J	2.2 U	2.9 J	NA	ND	ND	2 U	1.8 J	1.3 U	2.2 U
Vanadium	20	DHA	NA	ND	NA	5 U	5 U	3.9 U	3.9 U	NA	ND	ND	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	NA	30.5 J	NA	26.2	13.9 J	1.8 U	16.5 J	NA	44 J	37	7	9.9 J	10.8 J	35.2
Boron	600	DHA	NA	1300 R	NA	20 U	27.6 J	11.9 U	13.9 J	NA	1080 R	1300 R	20 U	9.3 J	11.9 U	13.6 J
Chloride	250000	SMCL	NA	NA	NA	26000	16000	17000	21000	NA	NA	NA	66000	65000	49000	57000
Cyanide (total)	200	MCL	NA	ND	NA	1.8 U	1.8 U	1.2 U	0.95 U	NA	ND	ND	4.8	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)

NAVAL SUBMARINE BASE - NEW LONDON

OFF-SITE RESIDENTIAL WELLS

SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC [1] VALUE	ARAR/TBC [1] SOURCE [2]	SAMPLE IDENTIFICATION/LOCATION: OSW25 1320 Route 12 Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	OSW28 1469 Route 12 Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	NA	61.6 J	74.2 J	104	106 J	47.9 J	37.8 J	NA	34.1 J	40.1 J	NA	NA	NA	NA
Antimony	6	MCL	NA	ND	ND	14.4 U	12.3 U	16.4 U	16.4 U	NA	ND	ND	NA	NA	NA	NA
Arsenic	50	MCL	NA	ND	ND	1 U	0.5 U	0.9 U	2.4 U	NA	ND	ND	NA	NA	NA	NA
Barium	1000	CTMCL	NA	35.3 J	33.6 J	32.5	27.2 J	54 J	77.3 J	NA	ND	9.6 J	NA	NA	NA	NA
Beryllium	4	MCL	NA	ND	ND	1 U	0.3 U	0.4 U	0.4 U	NA	ND	ND	NA	NA	NA	NA
Cadmium	5	MCL	NA	3.1 J	ND	2.5 U	1.8 U	2.3 U	2.3 U	NA	2.1 J	ND	NA	NA	NA	NA
Calcium	--		NA	8500	7020	10900	7540	14900	23400	NA	3560 J	4400 J	NA	NA	NA	NA
Chromium	50	CTMCL	NA	ND	ND	3.9 U	3.1 U	2.7 U	2.7 U	NA	ND	ND	NA	NA	NA	NA
Cobalt	--		NA	ND	ND	2.6 U	2.6 U	1.9 U	1.9 U	NA	ND	ND	NA	NA	NA	NA
Copper	1000	CTMCL	NA	25 J	108	15.2	25.3	35.4	41.9	NA	460	252	NA	NA	NA	NA
Iron	300	SMCL	NA	43.5 J	46.1 J	19.7	18.5 J	8.5 J	10.1 J	NA	191 J	94.2 J	NA	NA	NA	NA
Lead	15	MCL	NA	2.4 J	11.7 J	1.4	12	2.2 J	1.3 U	NA	5.6	ND J	NA	NA	NA	NA
Magnesium	--		NA	1960 J	1640 J	2340	1790 J	3110 J	4760 J	NA	893 J	1090 J	NA	NA	NA	NA
Manganese	200	DMCLG	NA	134	32	89.4	27.6	178	595	NA	ND	3.3 J	NA	NA	NA	NA
Mercury	2	MCL	NA	ND	ND	0.2 U	0.1 U	0.1 U	0.1 U	NA	ND	ND	NA	NA	NA	NA
Nickel	100	PMCL	NA	ND	8.9 J	11 U	8 U	8.4 U	8.4 U	NA	ND	ND	NA	NA	NA	NA
Potassium	--		NA	2130 J	2340 J	2300	2120 J	3570 J	5100	NA	621 J	1340 J	NA	NA	NA	NA
Selenium	10	CTMCL	NA	ND	ND	1 U	3.4 J	1.1 U	2.3 U	NA	ND	ND	NA	NA	NA	NA
Silver	50	CTMCL	NA	ND	ND	3 U	2.9 U	1.9 U	1.9 U	NA	ND	ND	NA	NA	NA	NA
Sodium	20000	DHA	NA	9260	11000	8240	9580	23700	20400	NA	11700	8740	NA	NA	NA	NA
Thallium	2	MCL	NA	ND	2.4 J	2 U	1.2 U	1.3 U	2.2 U	NA	ND	ND	NA	NA	NA	NA
Vanadium	20	DHA	NA	ND	ND	5 U	5 U	3.9 U	3.9 U	NA	ND	ND	NA	NA	NA	NA
Zinc	5000	SMCL	NA	19 J	64	32.4	24	26.4	27.5	NA	42.9 J	57.1	NA	NA	NA	NA
Boron	600	DHA	NA	1850 R	1800 R	79.6	63.4 J	106 J	126 J	NA	960 R	850 R	NA	NA	NA	NA
Chloride	250000	SMCL	NA	NA	NA	10000	12000	28000	19000	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	200	MCL	NA	ND	ND	1.8 U	1.8 U	1.2 J	6.2	NA	ND	ND	NA	NA	NA	NA
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)

NAVAL SUBMARINE BASE - NEW LONDON

OFF-SITE RESIDENTIAL WELLS

SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

	ARAR/TBC [1]		SAMPLE IDENTIFICATION/LOCATION													
			OSW29							OSW30						
			Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
PARAMETER	VALUE	SOURCE [2]	1323 Route 12							1319 Baldwin Hill Road						
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	NA	36.8 J	NA	NA	NA	NA	NA	NA	ND	NA	21.6 U	39.9 U	14.3 U	14.3 U
Antimony	6	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	1 U	0.5 U	0.9 U	2.4 U
Barium	1000	CTMCL	NA	56.7 J	NA	NA	NA	NA	NA	NA	ND	NA	9	13.1 U	10.4 J	31.5 J
Beryllium	4	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		NA	15500	NA	NA	NA	NA	NA	NA	4200 J	NA	4770	5410	8450	8860
Chromium	50	CTMCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	NA	135	NA	NA	NA	NA	NA	NA	125	NA	125	63.4	111	121
Iron	300	SMCL	NA	75 J	NA	NA	NA	NA	NA	NA	92.3 J	NA	113	110	20.3 J	63.5 J
Lead	15	MCL	NA	5.6	NA	NA	NA	NA	NA	NA	4.1 J	NA	5.9	2.8 U	2.6 J	3.6
Magnesium	--		NA	2420 J	NA	NA	NA	NA	NA	NA	1020 J	NA	1170	1280 J	1870 J	1930 J
Manganese	200	DMCLG	NA	3.1 J	NA	NA	NA	NA	NA	NA	9.9 J	NA	13.7	9.7 J	1 U	21.7
Mercury	2	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	0.2 U	0.1 U	0.1 U	0.1 U
Nickel	100	PMCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		NA	2140 J	NA	NA	NA	NA	NA	NA	ND	NA	446	813 J	809 J	1720 J
Selenium	10	CTMCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	1 U	1.1 U	1.1 U	2.3 U
Silver	50	CTMCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	NA	11600	NA	NA	NA	NA	NA	NA	19400	NA	16200	25500	24600	37800
Thallium	2	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	2 U	1.4 U	1.3 U	2.2 U
Vanadium	20	DHA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	NA	37.5 J	NA	NA	NA	NA	NA	NA	18.7 J	NA	14.8	7.4 U	10 J	12 J
Boron	600	DHA	NA	1560 R	NA	NA	NA	NA	NA	NA	960 R	NA	20 U	8.8 U	16 J	11.9 U
Chloride	250000	SMCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25000	41000	40000	64000
Cyanide (total)	200	MCL	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	1.9	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)

NAVAL SUBMARINE BASE - NEW LONDON

OFF-SITE RESIDENTIAL WELLS

SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

	ARAR/TBC [1]		SAMPLE IDENTIFICATION/LOCATION													
			OSW32							OSW33						
			Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993	Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
PARAMETER	VALUE	SOURCE [2]	160 Military Highway							150 Military Highway						
TAL INORGANICS (ppb)																
Aluminum	200	SMCL	NA	NA	206	NA	315	323	NA	NA	NA	NA	42.6	41.9 U	21.9 J	24.2 J
Antimony	6	MCL	NA	NA	ND	NA	12.3 U	16.4 U	NA	NA	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	NA	NA	ND	NA	0.5 U	0.9 U	NA	NA	NA	NA	1 U	0.5 U	2.4 U	2.4 U
Barium	1000	CTMCL	NA	NA	15.6 J	NA	17 J	15.1 J	NA	NA	NA	NA	17.3	8.4 U	1.6 U	37.8 J
Beryllium	4	MCL	NA	NA	ND	NA	0.3 U	0.4 U	NA	NA	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	NA	NA	ND	NA	1.8 U	2.3 U	NA	NA	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		NA	NA	6280	NA	5950	4770 J	NA	NA	NA	NA	11500	7610	5650	22600
Chromium	50	CTMCL	NA	NA	ND	NA	3.1 U	2.7 U	NA	NA	NA	NA	3.9 U	3.1 U	2.7 U	2.7 U
Cobalt	--		NA	NA	6 J	NA	2.6 U	1.9 U	NA	NA	NA	NA	2.6 U	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	NA	NA	14.6 J	NA	6.8 J	1.6 J	NA	NA	NA	NA	28.4	51.4	83.9 J	21.2 J
Iron	300	SMCL	NA	NA	97.3 J	NA	51.8 J	51.5 J	NA	NA	NA	NA	67.3	67 U	4.8 U	99 J
Lead	15	MCL	NA	NA	13.4 J	NA	1.4 J	1.7 U	NA	NA	NA	NA	2.5	1 U	2.6 J	1.3 U
Magnesium	--		NA	NA	752 J	NA	809 J	706 J	NA	NA	NA	NA	3310	2220 J	1340 J	4740 J
Manganese	200	DMCLG	NA	NA	37	NA	52.2	51.2	NA	NA	NA	NA	95.1	34.1	1 U	275
Mercury	2	MCL	NA	NA	ND	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.2 U	0.1 U	0.04 U	0.1 U
Nickel	100	PMCL	NA	NA	8.2 J	NA	8 U	8.4 U	NA	NA	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		NA	NA	474 J	NA	626 J	642 J	NA	NA	NA	NA	1560	1240 J	202 U	2500 J
Selenium	10	CTMCL	NA	NA	ND	NA	1.1 U	1.1 U	NA	NA	NA	NA	1 U	1.1 U	2.3 U	2.3 U
Silver	50	CTMCL	NA	NA	ND	NA	2.9 U	3.5 J	NA	NA	NA	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	NA	NA	8790	NA	11700	10500	NA	NA	NA	NA	27100	19200	12300	46500
Thallium	2	MCL	NA	NA	2.6 J	NA	1.2 U	1.3 U	NA	NA	NA	NA	2 U	1.2 U	2.2 U	2.2 U
Vanadium	20	DHA	NA	NA	ND	NA	5 U	3.9 U	NA	NA	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	NA	NA	41.3	NA	20.9	41	NA	NA	NA	NA	26.1	19.7 J	1.8 U	19.5 J
Boron	600	DHA	NA	NA	1300 R	NA	11.3 J	11.9 U	NA	NA	NA	NA	35.4	10.9 U	11.9 U	43.5 J
Chloride	250000	SMCL	NA	NA	NA	NA	13000	13000	NA	NA	NA	NA	55000	33000	16000	78000
Cyanide (total)	200	MCL	NA	NA	ND	NA	1.8 U	1.2 U	NA	NA	NA	NA	1.8 U	1.8 U	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)																
Chloromethane	--		NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)																
bis(2-ethylhexyl)phthalate	--		NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)																
TCL Pesticides/PCBs	--		NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

TABLE 2-2 (continued)
NAVAL SUBMARINE BASE - NEW LONDON
OFF-SITE RESIDENTIAL WELLS
SUMMARY OF WELL WATER ANALYTICAL DATA (INORGANICS)

PARAMETER	ARAR/TBC 1 VALUE	ARAR/TBC 1 SOURCE 2	SAMPLE IDENTIFICATION/LOCATION OSW34 152 Military Highway Dec. 1990	Feb. 1991	July 1991	March 1993	June 1993	Sept. 1993	Dec. 1993
TAL INORGANICS (ppb)									
Aluminum	200	SMCL	NA	NA	NA	394	114 J	64.2 J	89.1 J
Antimony	6	MCL	NA	NA	NA	14.4 U	12.3 U	16.4 U	16.4 U
Arsenic	50	MCL	NA	NA	NA	1 U	0.5 U	2.4 U	2.4 U
Barium	1000	CTMCL	NA	NA	NA	74.4	14 J	8.1 J	18.2 J
Beryllium	4	MCL	NA	NA	NA	1 U	0.3 U	0.4 U	0.4 U
Cadmium	5	MCL	NA	NA	NA	2.5 U	1.8 U	2.3 U	2.3 U
Calcium	--		NA	NA	NA	9760	5210	5090	7140
Chromium	50	CTMCL	NA	NA	NA	6.7	3.1 U	2.7 U	2.7 U
Cobalt	--		NA	NA	NA	4.3	2.6 U	1.9 U	1.9 U
Copper	1000	CTMCL	NA	NA	NA	55.9	20.2 J	27.8	36.4
Iron	300	SMCL	NA	NA	NA	66.9	38.5 J	105	79.5 J
Lead	15	MCL	NA	NA	NA	6.6	2.2 J	5.3	3.4
Magnesium	--		NA	NA	NA	1530	833 J	654 J	1160 J
Manganese	200	DMCLG	NA	NA	NA	56.5	11.3 J	1.8 J	14.5 J
Mercury	2	MCL	NA	NA	NA	0.2 U	0.1 U	0.04 U	0.1 U
Nickel	100	PMCL	NA	NA	NA	11 U	8 U	8.4 U	8.4 U
Potassium	--		NA	NA	NA	1470	785 J	992 J	1110 J
Selenium	10	CTMCL	NA	NA	NA	1 U	1.1 U	3.2 J	2.3 U
Silver	50	CTMCL	NA	NA	NA	3 U	2.9 U	1.9 U	1.9 U
Sodium	20000	DHA	NA	NA	NA	53000	13800	14500	14500
Thallium	2	MCL	NA	NA	NA	2 U	1.2 U	2.2 U	2.2 U
Vanadium	20	DHA	NA	NA	NA	5 U	5 U	3.9 U	3.9 U
Zinc	5000	SMCL	NA	NA	NA	97.3	29.5	49.2	445
Boron	600	DHA	NA	NA	NA	25.9	26.2 J	11.9 U	19.8 J
Chloride	250000	SMCL	NA	NA	NA	99000	16000	11000	23000
Cyanide (total)	200	MCL	NA	NA	NA	1.8 U	3.1 J	1.2 U	0.95 U
TCL VOLATILE ORGANICS (ppb)									
Chloromethane	--		NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	25	CTDOHS	NA	NA	NA	NA	NA	NA	NA
Xylene (total)	10,000	MCL	NA	NA	NA	NA	NA	NA	NA
TCL SEMI-VOLATILE ORGANICS (ppb)									
bis(2-ethylhexyl)phthalate	--		NA	NA	NA	NA	NA	NA	NA
TCL PESTICIDES/PCBs (ppb)									
TCL Pesticides/PCBs	--		NA	NA	NA	NA	NA	NA	NA

Notes:
1. ARAR/TBC indicates applicable or relevant and appropriate requirements/TBC indicates to be considered values.
2. SMCL = Secondary Maximum Contaminant Level; MCL = Maximum Contaminant Level; CTMCL = Connecticut Maximum Contaminant Level; PMCL = Proposed Maximum Contaminant Level; AL = Action Level; HA = Health Advisory; DHA = Draft Health Advisory; DMCLG = Draft Maximum Contaminant Level Goal; and CTDOHS = Connecticut Department of Health Services Action Level.

ppb indicates concentrations of parts per billion.
J indicates estimated value based on data validation.
R indicates value rejected based on data validation.
U indicates not detected; less than detection limit.
Shading indicates value above ARAR/TBC. Only MCL and CTMCL are ARAR.

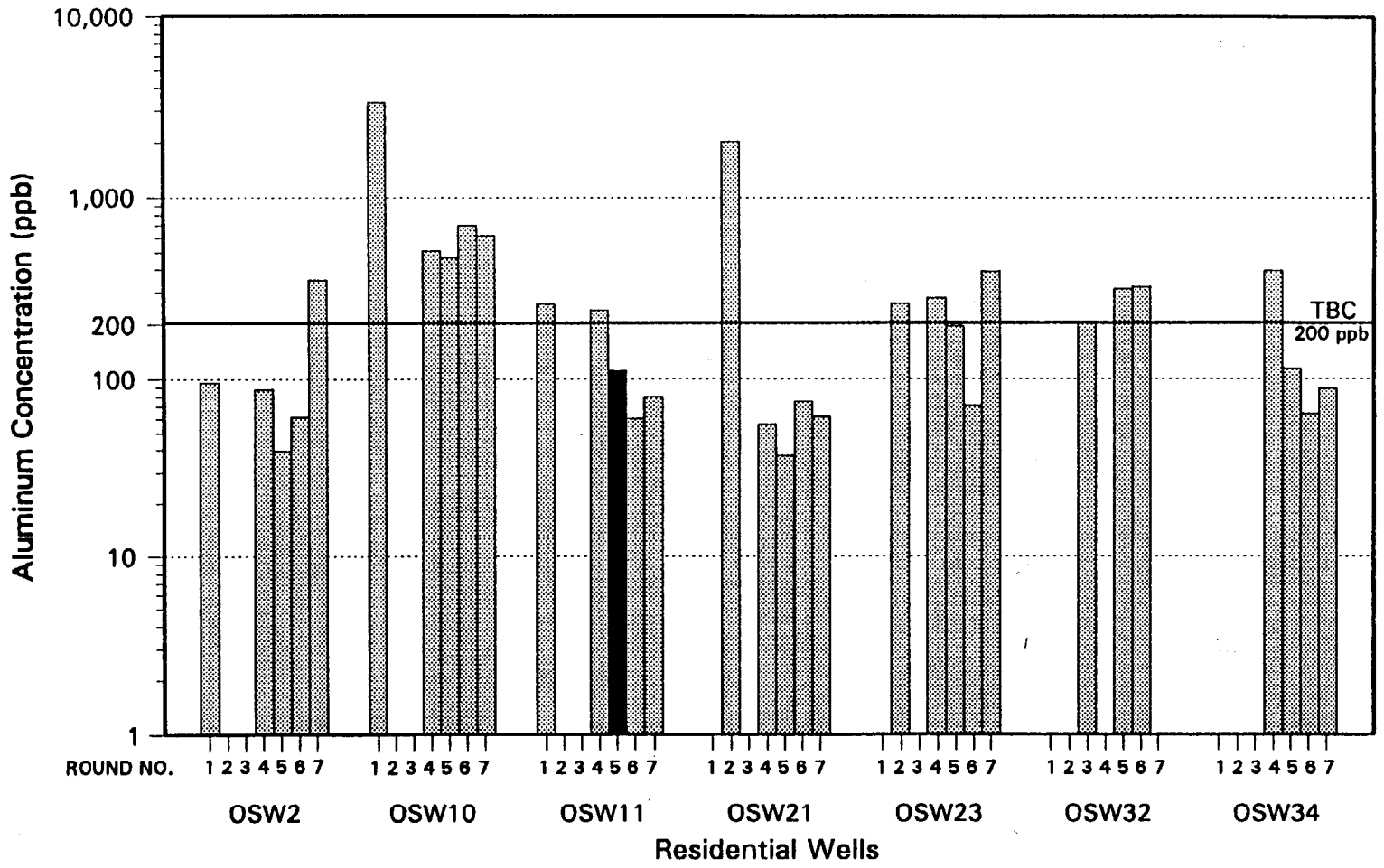
2.2 Analytical Results

During the seven rounds of residential well sampling the following nine inorganics were detected one or more times, at levels above established TBC or ARAR values, aluminum, cadmium, copper, iron, lead, manganese, sodium, thallium, and vanadium. Elevated boron levels reported during the first stage of sampling were disregarded due to laboratory error, and the second stage of sampling confirms that boron levels in groundwater are well below the TBC value of 600 ppb. Analytical results for inorganics detected during the seven rounds of sampling are presented in Table 2-2 and are discussed in the following subsections.

A review of all available data to date regarding the levels of inorganics in groundwater, including distribution of elements as well as concentrations, does not suggest that NSB-NLON is a likely source. The final determination can not be made until data collected during the ongoing Phase II field program is completed and reviewed.

2.2.1 Aluminum

Aluminum concentrations in residential well water ranged from non detected to 3360 ppb. Of the 25 sampling locations tested, seven wells were found to contain aluminum at levels above the TBC value of 200 ppb. This TBC is a secondary maximum contaminant level (SMCL) which is primarily based on aesthetic qualities of drinking water. The seven wells include: OSW2, OSW10, OSW11, OSW21, OSW23, OSW32, and OSW34. Analytical results for aluminum concentrations in these wells are presented in Table 2-3, and a graphical representation of concentrations over time is presented in Figure 2-1. The analytical results presented in Figure 2-1 do not indicate any distinct pattern over time. Figure 2-2 indicates the distribution of aluminum in residential well water; the distribution does not suggest that NSB-NLON is the source aluminum. In addition, aluminum is often found in groundwater at the concentrations detected due to natural or background conditions.



INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE - NEW LONDON
GROTON, CT

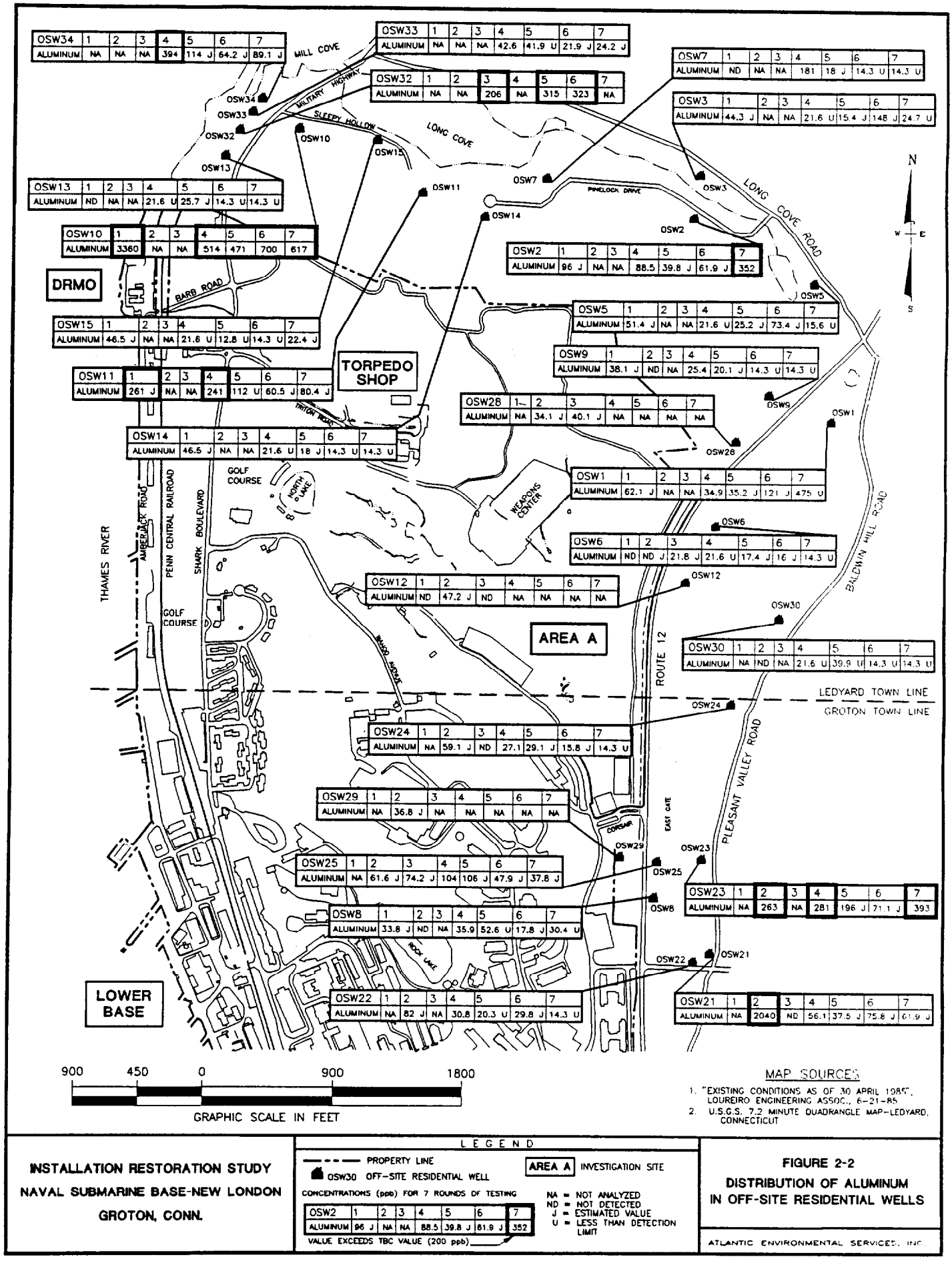
LEGEND

INDICATES NOT DETECTED
CONCENTRATION INDICATES DETECTION LIMIT
BLANK SPACE INDICATES NO ANALYSIS PERFORMED

ROUND 1 - 12/90
ROUND 2 - 2/91
ROUND 3 - 7/91
ROUND 4 - 3/93
ROUND 5 - 6/93
ROUND 6 - 9/93
ROUND 7 - 12/93

FIGURE 2-1
RESIDENTIAL WELLS WITH ALUMINUM ABOVE TBC VALUE

ATLANTIC ENVIRONMENTAL SERVICES, INC.



INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE-NEW LONDON
GROTON, CONN.

FIGURE 2-2
DISTRIBUTION OF ALUMINUM IN OFF-SITE RESIDENTIAL WELLS

ATLANTIC ENVIRONMENTAL SERVICES, INC.

TABLE 2-3
ALUMINUM CONCENTRATIONS
ABOVE THE TBC VALUE (ppb)

Well ID	TBC (ppb)	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
OSW2	200	96 J	NA	NA	88.5	39.8	61.9	352
OSW10	200	3360	NA	NA	514	471	700	617
OSW11	200	261 J	NA	NA	241	112 U	60.5 J	80.4 J
OSW21	200	NA	2040	ND	56.1	37.5 J	75.8 J	61.9 J
OSW23	200	NA	263	NA	281	196 J	71.1 J	393
OSW32	200	NA	NA	206	NA	315	323	NA
OSW34	200	NA	NA	NA	394	114 J	64.2 J	89.1 J

2.2.2 Cadmium

Cadmium concentrations in residential well water were typically low, ranging from non detected to 3.1 ppb, however the concentration at OSW6 was reported outside of this range at 26.3 ppb during round one. This level is above the ARAR value of 5 ppb, which is the MCL, however, subsequent sampling rounds at that location failed to detect cadmium above the instrument detection level of approximately 2.5 ppb. Therefore, the one detection of cadmium above ARARs at OSW6 is considered anomalous and not significant. Other locations where low levels of cadmium were reported during either stage of sampling include, OSW9 (1.9 ppb), OSW12 (2.3 ppb), OSW21 (3.1 ppb), OSW24 (2.8 ppb), OSW25 (3.1 ppb) and OSW28 (2.1 ppb). These concentrations are all below the drinking water ARAR.

2.2.3 Copper

Copper was detected at low levels in all of the residential well samples. Copper pipes were in use at every home that was sampled, and are a likely source of copper detected in the water samples. The Connecticut MCL for copper (1,000 ppb), which is an ARAR, was exceeded at OSW22 where 2,160 ppb was reported during round seven. At this location the concentration of copper ranged from 107 ppb to 512 ppb during the previous rounds of

sampling. A possible explanation for the elevated copper detected at this location might be that a piece of copper piping entrained in the water supply may have gotten into the sample. A review of Area A Landfill and Wetland groundwater data indicates that the highest concentration of copper detected during the Phase I Remedial Investigation (RI) is 15.1 ppb. It is therefore concluded that NSB-NLON is not the likely origin of elevated copper.

2.2.4 Iron

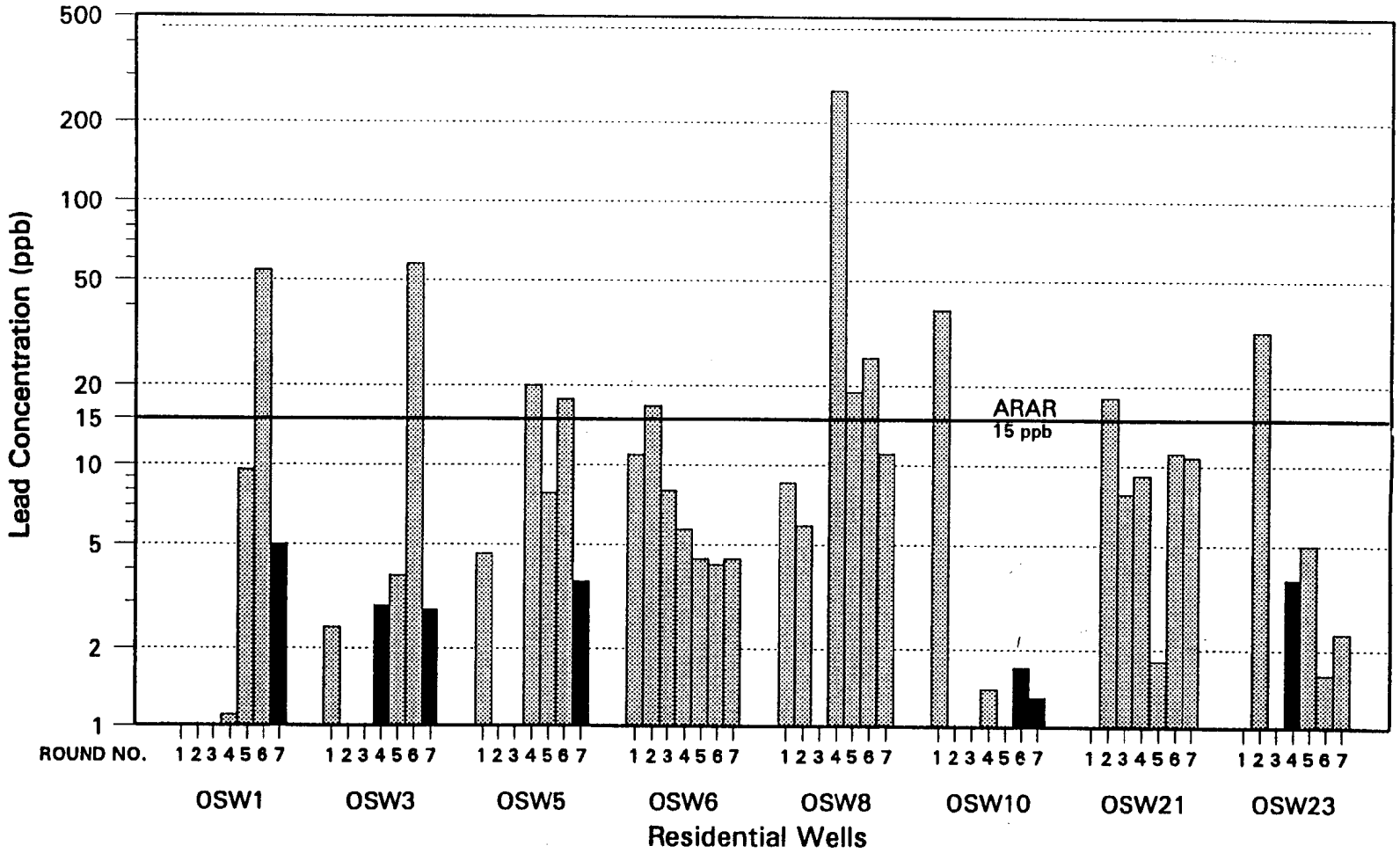
Iron was detected at levels above the TBC value of 300 ppb in eight of the 25 residential wells sampled. These wells include OSW1, OSW2, OSW3, OSW5, OSW10, OSW12, OSW21, and OSW23. Table 2-4 provides the data for all rounds of sampling at these locations. The TBC value for iron is a SMCL and is based on aesthetic concerns due to undesirable odor and taste considerations rather than a concern regarding health effects. There is no pattern which attributes elevated iron in residential groundwater to NSB-NLON. Iron is a typical element found in groundwater, and is not considered to be an element of concern for well users adjacent to the NSB-NLON.

TABLE 2-4
IRON CONCENTRATIONS
ABOVE THE TBC VALUE (ppb)

Well ID	TBC (ppb)	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
OSW1	300	203	NA	NA	32.1	27.3	549	21.1
OSW2	300	204	NA	NA	30.6	28.8	78.4	308
OSW3	300	198	NA	NA	105	112	3250	599
OSW5	300	603	NA	NA	48.9	26.2	1490	33.8
OSW10	300	911	NA	NA	25.3	50	669	91
OSW12	300	743	42.9	66	NA	NA	NA	NA
OSW21	300	NA	21800	247	76.7	61.7	591	147
OSW23	300	NA	606	NA	134	90.2	4.86	37.2

2.2.5 Lead

Lead was detected at levels above the ARAR value of 15 ppb in eight of the 25 residential wells sampled; values ranging from non detected to 264 ppb were reported. The 15 ppb level is the federal action level for the lead. This action level is measured in the 90th percentile at public water supply consumers' taps and if exceeded triggers treatment technique requirements to be met by the water supply company. The wells exceeding the level include OSW1, OSW3, OSW5, OSW6, OSW8, OSW10, OSW21, and OSW23. Table 2-5 provides the data for all rounds of sampling at these locations. A graphical representation of this data indicating temporal changes, is provided as Figure 2-3. A review of this data does not indicate any recognizable trends over time. Figure 2-4 presents a map which provides the analytical results for lead in residential well water during each round of sampling. The distribution of lead in residential well water does not suggest NSB-NLON is the source. This conclusion is supported by the high incidence of wells observed to have little or no lead, adjacent to wells with elevated concentrations. One possible scenario for the elevated levels of lead found in residential well water may be likely due to lead solder, which was commonly used for plumbing until circa 1980, and other typical plumbing fixtures. Also, it is noted that wells sampled as part of the Phase I RI in the Area A Landfill and Wetland contained lead at levels well below the ARAR in every location except one, where an estimated 22.4 ppb was reported.



INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE - NEW LONDON
GROTON, CT

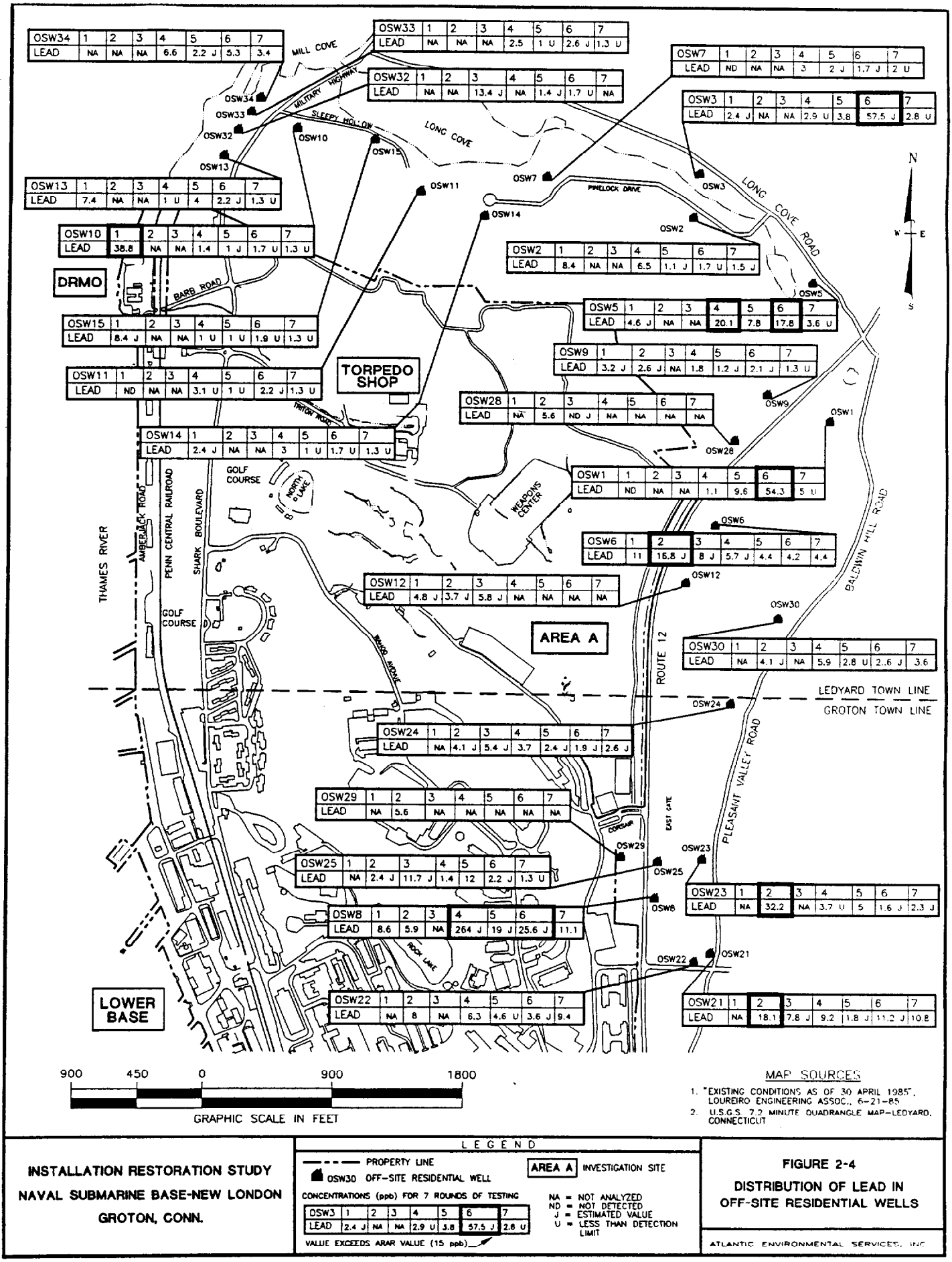
LEGEND

INDICATES NOT DETECTED
CONCENTRATION INDICATES DETECTION LIMIT
BLANK SPACE INDICATES NO ANALYSIS PERFORMED

ROUND 1 - 12/90
ROUND 2 - 2/91
ROUND 3 - 7/91
ROUND 4 - 3/93
ROUND 5 - 6/93
ROUND 6 - 9/93
ROUND 7 - 12/93

FIGURE 2-3
RESIDENTIAL WELLS WITH LEAD ABOVE ARAR VALUE

ATLANTIC ENVIRONMENTAL SERVICES, INC.



INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE-NEW LONDON
GROTON, CONN.

FIGURE 2-4
DISTRIBUTION OF LEAD IN OFF-SITE RESIDENTIAL WELLS

ATLANTIC ENVIRONMENTAL SERVICES, INC

TABLE 2-5 LEAD CONCENTRATIONS ABOVE THE ARAR VALUE (ppb)								
Well ID	**ARAR (ppb)**	**Round 1**	**Round 2**	**Round 3**	**Round 4**	**Round 5**	**Round 6**	**Round 7**
OSW1	15	ND	NA	NA	1.1	9.6	54.3	5 U
OSW3	15	2.4 J	NA	NA	2.9 U	3.8	57.5	2.8 U
OSW5	15	4.6 J	NA	NA	20.1	7.8	17.8	3.6 U
OSW6	15	11	16.8	8 J	5.7 J	4.4	4.2	4.4
OSW8	15	8.6	5.9	NA	264 J	19 J	25.6 J	11.1
OSW10	15	38.8	NA	NA	1.4	1 J	1.7 U	1.3 U
OSW21	15	NA	18.1	7.8 J	9.2	1.8 J	11.2 J	10.8
OSW23	15	NA	32.2	NA	3.7 U	5	1.6 J	2.3 J

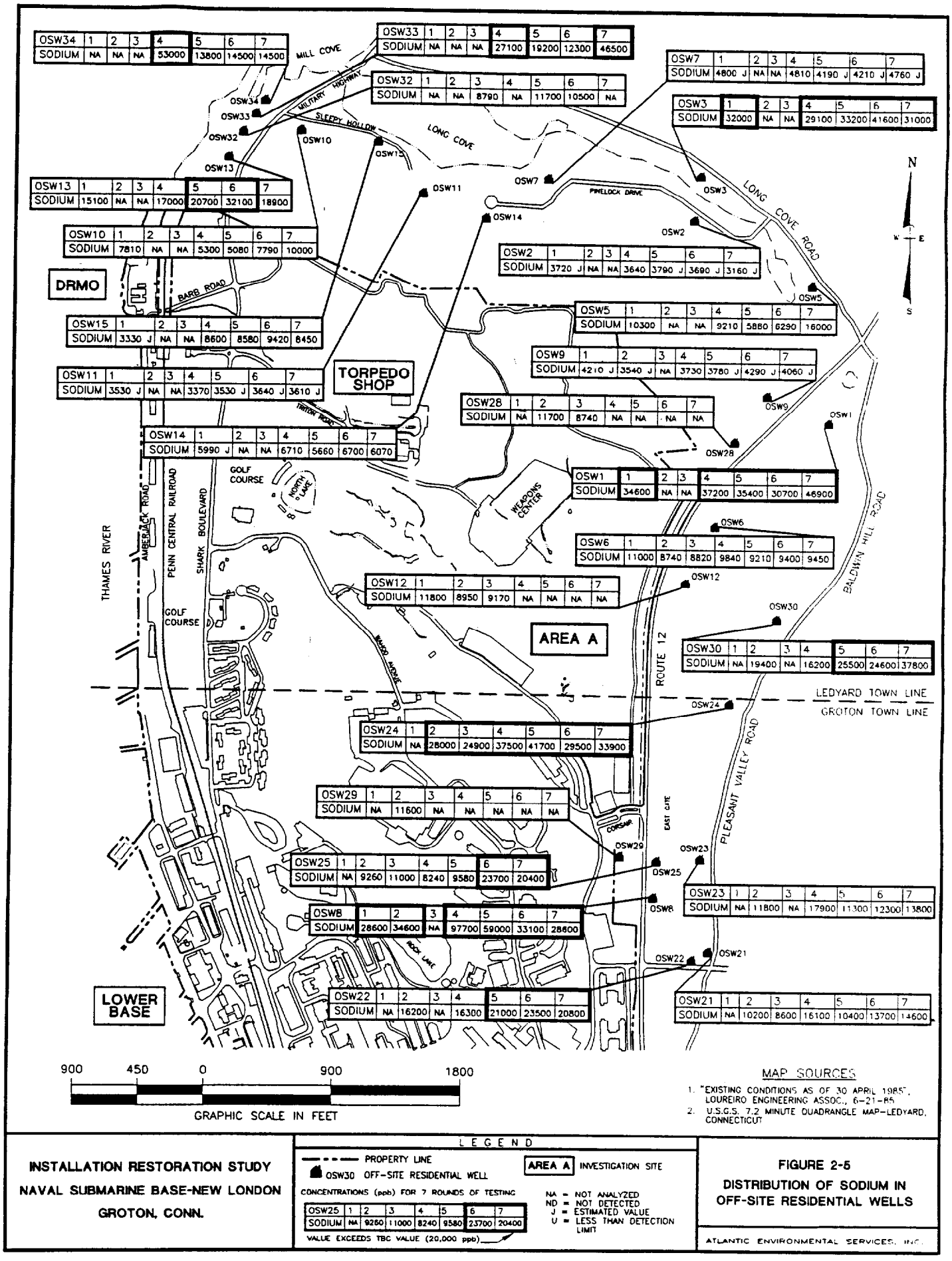
2.2.6 Manganese

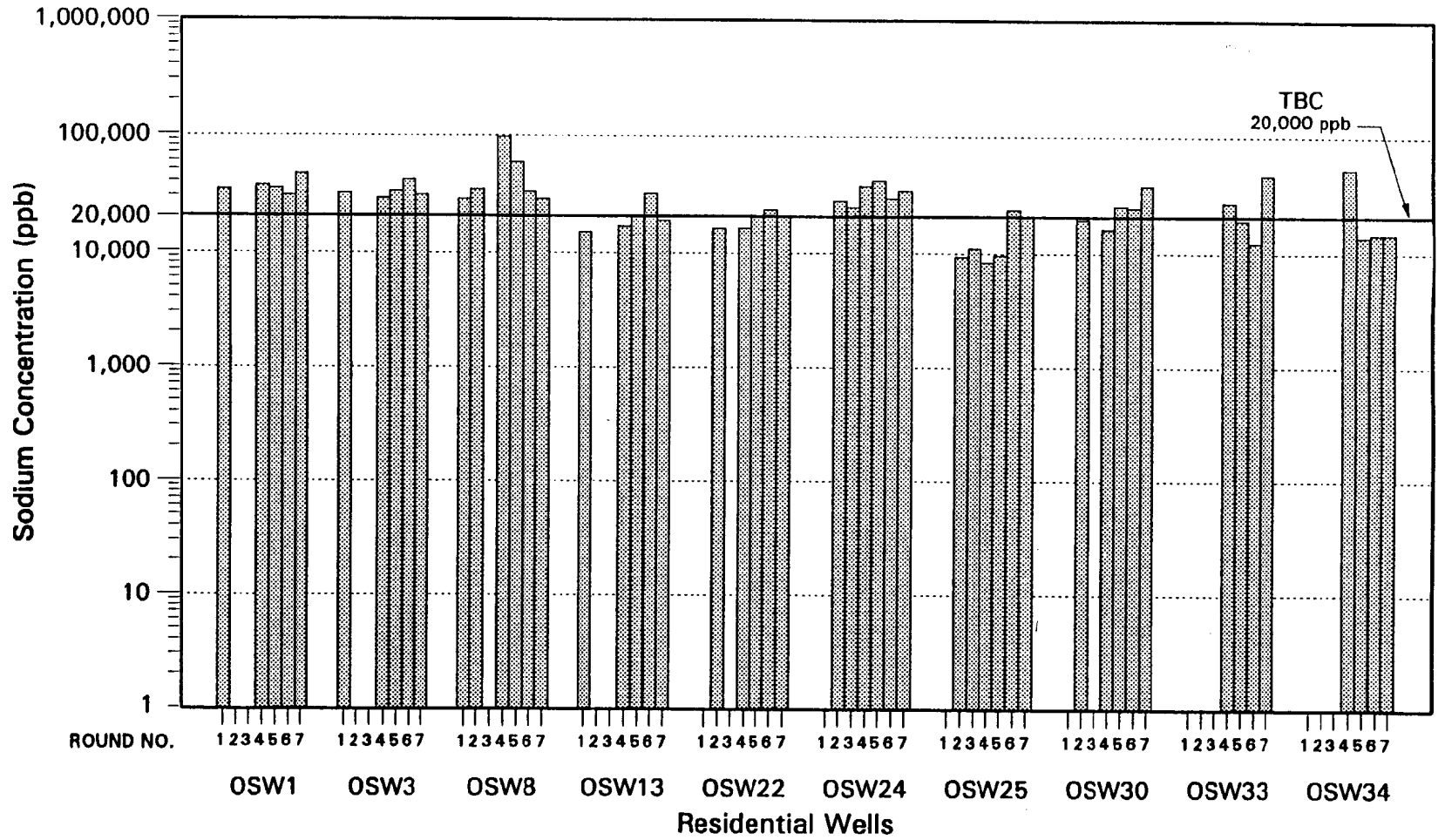
Manganese concentrations in residential well water ranged from non detected to 2130 ppb. Three residential wells contained manganese at levels above the TBC value of 200 ppb during one or more rounds of sampling, they include, OSW3, OSW25, and OSW33. This TBC is a SMCL based primarily on aesthetic qualities of drinking water. Table 2-6 indicates the concentrations of manganese during all seven rounds of sampling for each well. There does not appear to be any relationship between elevated levels of manganese in the three residential wells, and NSB-NLON. This conclusion is supported by observing the locations of the three wells containing elevated manganese, these wells are not grouped together, and adjacent wells were not found to contain elevated levels of manganese.

TABLE 2-6 MANGANESE CONCENTRATIONS ABOVE THE TBC VALUE (ppb)								
Well ID	**TBC (ppb)**	**Round 1**	**Round 2**	**Round 3**	**Round 4**	**Round 5**	**Round 6**	**Round 7**
OSW3	200	244	NA	NA	891	480	582	2130
OSW25	200	NA	134	32	894	27.6	178	595
OSW33	200	NA	NA	NA	95.1	34.1	1 U	275

2.2.7 Sodium

Sodium concentrations in residential well water were elevated above the TBC value of 20,000 ppb in ten of the 25 wells sampled. This TBC is based primarily on taste and aesthetic qualities of drinking water. The analytical results for these ten wells are presented in Table 2-7. Concentrations measured at all locations ranged from between 3,160 ppb and 97,700 ppb. Figure 2-5 indicates the distribution of sodium in residential well water for each of the seven rounds of sampling. Figure 2-6 presents a graphical representation of concentrations over time in the ten wells where sodium concentrations exceeded the TBC value. Reviewing this graph does not indicate any distinct seasonal fluctuation pattern. The proximity of area wells to the Thames River estuary is one likely source of elevated sodium in residential wells. A review of Figure 2-5 clearly indicates that the likely source of sodium in OSW13, OSW33, and OSW34, is the Thames River. The elevated levels of sodium detected in OSW3, may be related to Long Cove (a tidal cove). The remaining wells with elevated sodium (OSW1, OSW8, OSW22, OSW24, OSW25, and OSW30), are located to the East of NSB-NLON. It is unclear as to the source of elevated sodium in these wells, however sodium is a naturally occurring element in groundwater. The following wells were found to contain levels of sodium below the TBC value, but were located adjacent to wells containing much higher concentrations they include: OSW6, OSW9, OSW12, OSW21, OSW23, OSW28, and OSW29. This occurrence indicates that the elevated sodium is not widespread surrounding the base, suggesting another source other than NSB-NLON possibly road salt used in the winter for de-icing. Sodium's concentrations and distribution does not suggest that NSB-NLON is the source of this element.


OSW34 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | NA | NA | 53000 | 13800 | 14500 | 14500
OSW33 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | NA | NA | 27100 | 19200 | 12300 | 46500
OSW32 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | NA | 8790 | NA | 11700 | 10500 | NA
OSW7 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 4800 J | NA | NA | 4810 | 4190 J | 4210 J | 4760 J
OSW3 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 32000 | NA | NA | 29100 | 33200 | 41600 | 31000
OSW13 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 15100 | NA | NA | 17000 | 20700 | 32100 | 18900
OSW10 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 7810 | NA | NA | 5300 | 5080 | 7790 | 10000
OSW2 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 3720 J | NA | NA | 3640 | 3790 J | 3690 J | 3160 J
OSW5 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 10300 | NA | NA | 9210 | 5880 | 6290 | 16000
OSW15 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 3330 J | NA | NA | 8600 | 8580 | 9420 | 8450
OSW9 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 4210 J | 3540 J | NA | 3730 | 3780 J | 4290 J | 4060 J
OSW11 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 3530 J | NA | NA | 3370 | 3530 J | 3640 J | 3610 J
OSW28 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 11700 | 8740 | NA | NA | NA | NA
OSW14 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 5990 J | NA | NA | 6710 | 5660 | 6700 | 6070
OSW1 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 34600 | NA | NA | 37200 | 35400 | 30700 | 46900
OSW6 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 11000 | 8740 | 8820 | 9840 | 9210 | 9400 | 9450
OSW12 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 11800 | 8950 | 9170 | NA | NA | NA | NA
OSW30 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 19400 | NA | 16200 | 25500 | 24600 | 37800
OSW24 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 28000 | 24900 | 37500 | 41700 | 29500 | 33900
OSW29 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 11600 | NA | NA | NA | NA | NA
OSW25 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 9260 | 11000 | 8240 | 9580 | 23700 | 20400
OSW23 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 11800 | NA | 17900 | 11300 | 12300 | 13800
OSW8 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | 28600 | 34600 | NA | 97700 | 59000 | 33100 | 28600
OSW22 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 16200 | NA | 16300 | 21000 | 23500 | 20800
OSW21 | 1 | 2 | 3 | 4 | 5 | 6 | 7
SODIUM | NA | 10200 | 8600 | 16100 | 10400 | 13700 | 14600
MILL COVE
MILITARY HIGHWAY
SLEEPY HOLLOW
LONG COVE
PINELOCK DRIVE
LONG COVE ROAD
DRMO
BARB ROAD
TORPEDO SHOP
TRITON ROAD
GOLF COURSE
NORTH LAKE
WEAPONS CENTER
THAMES RIVER
AMBERJACK ROAD
PENN CENTRAL RAILROAD
SHARK BOULEVARD
GOLF COURSE
AREA A
ROUTE 12
BALDWIN HILL ROAD
LEDYARD TOWN LINE
GROTON TOWN LINE
PLEASANT VALLEY ROAD
EAST GATE
CORSAIR
ROCK LANE
LOWER BASE
N
W
E
S
900 450 0 900 1800
GRAPHIC SCALE IN FEET
MAP SOURCES
1. "EXISTING CONDITIONS AS OF 30 APRIL 1985", LOUREIRO ENGINEERING ASSOC., 6-21-85
2. U.S.G.S. 7.2 MINUTE QUADRANGLE MAP-LEDYARD, CONNECTICUT
LEGEND
PROPERTY LINE
OSW30 OFF-SITE RESIDENTIAL WELL
AREA A INVESTIGATION SITE
CONCENTRATIONS (ppb) FOR 7 ROUNDS OF TESTING
NA = NOT ANALYZED
ND = NOT DETECTED
J = ESTIMATED VALUE
U = LESS THAN DETECTION LIMIT
VALUE EXCEEDS TBC VALUE (20,000 ppb)
INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE-NEW LONDON
GROTON, CONN.
FIGURE 2-5
DISTRIBUTION OF SODIUM IN OFF-SITE RESIDENTIAL WELLS
ATLANTIC ENVIRONMENTAL SERVICES, INC.



INSTALLATION RESTORATION STUDY
NAVAL SUBMARINE BASE - NEW LONDON
GROTON, CT

LEGEND

ROUND 1 - 12/90
ROUND 2 - 2/91
ROUND 3 - 7/91
ROUND 4 - 3/93
ROUND 5 - 6/93
ROUND 6 - 9/93
ROUND 7 - 12/93

BLANK SPACE INDICATES NO ANALYSIS PERFORMED

FIGURE 2-6
RESIDENTIAL WELLS WITH SODIUM ABOVE TBC VALUE

ATLANTIC ENVIRONMENTAL SERVICES, INC.

TABLE 2-7 SODIUM CONCENTRATIONS ABOVE THE TBC VALUE (ppb)								
Well ID	TBC (ppb)	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
OSW1	20,000	34600	NA	NA	33200	35400	30700	46900
OSW3	20,000	32000	NA	NA	29100	33200	41600	31000
OSW8	20,000	28600	34600	NA	97700	59000	33100	28600
OSW13	20,000	15100	NA	NA	17000	20700	32100	18900
OSW22	20,000	NA	16200	NA	16300	21000	23500	20800
OSW24	20,000	NA	28000	24900	37500	41700	29500	33900
OSW25	20,000	NA	9260	11000	8240	9580	23700	20400
OSW30	20,000	NA	19400	NA	16200	25500	24600	37800
OSW33	20,000	NA	NA	NA	27100	19200	12300	46500
OSW34	20,000	NA	NA	NA	53000	13800	14500	14500

2.2.8 Thallium

Thallium concentrations detected in residential well water were generally not detected, however seven wells were found to contain low levels above the ARAR of 2 ppb, which is the MCL, on at least one occasion. They include OSW8, OSW9, OSW12, OSW15, OSW23, OSW25, and OSW32. Concentrations ranged from non detected to 4.3 ppb. Table 2-8 indicates the concentrations of thallium for these wells during the seven rounds of sampling. Wells located at OSW8, OSW23, and OSW25 are situated close together geographically, and were all found to contain elevated thallium. The source of the thallium at this general location is unclear, as other nearby wells (OSW21, OSW22, and OSW29) were not found to contain levels above the ARAR during any of the seven rounds of sampling. The remaining wells found to contain elevated thallium, OSW9, OSW12, OSW15, and OSW32 are situated randomly among other wells where thallium was absent. A review of Area A Wetland and Landfill soils and groundwater data indicates that thallium was not detected in either media during sampling conducted during the Phase I Remedial Investigation. Therefore, there is no evidence which links the elevated levels of thallium in any of the wells to NSB-NLON.

TABLE 2-8 THALLIUM CONCENTRATIONS ABOVE THE ARAR (ppb)								
Well ID	ARAR (ppb)	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
OSW8	2	ND	ND	NA	2 U	1.2 U	2.2 U	4.3 J
OSW9	2	ND	ND	NA	2 U	1.8 J	2.9 J	2.2 U
OSW12	2	ND	ND	2.4 J	NA	NA	NA	NA
OSW15	2	ND	NA	NA	2 U	1.2 U	2 J	2.7 J
OSW23	2	NA	ND	NA	2 U	1.6 J	2.2 U	2.9 J
OSW25	2	NA	ND	2.4 J	2 U	1.2 U	1.3 U	2.2 U
OSW32	2	NA	NA	2.6 J	NA	1.2 U	1.3 U	NA

2.2.9 Vanadium

Vanadium is the final element found in residential well water at a level above the existing TBC value of 20 ppb. This TBC value is established based on health effects. Only one incidence of elevated vanadium was reported during the seven rounds of sampling. This occurred during round two at OSW21, where 33.1 ppb was reported. There were no levels of vanadium detected above the instrument detection limit (IDL) during subsequent rounds of sampling. Additionally, there were no levels of vanadium detected at any of the remaining 24 residential wells detected above the IDL. A review of Area Landfill and Wetland groundwater data indicates that vanadium was not detected during the sampling during the Phase I Remedial Investigation. Based on these results it is concluded that vanadium is not an element of concern for residential well owners in the vicinity of NSB-NLON.

3.0 SUMMARY AND CONCLUSIONS

In conclusion an analysis of existing data does not indicate NSB-NLON is a source of elevated inorganics in residential well water at locations adjacent to the Subase. Presently an investigation of the bedrock aquifer in the vicinity of Area A is being performed, which will provide information regarding groundwater flow direction and velocity. This data used in conjunction with the results provided herein will provide more information regarding the interrelationship between groundwater quality at NSB-NLON and the off-site residential wells.

The following wells were found to contain three or more different elements at levels above ARARs or TBCs during one or more rounds of sampling; they include OSW1, OSW3, OSW8, OSW10, OSW21, OSW23, and OSW25. Homeowners whose wells have been reported to have any exceedence of ARARs or TBCs are encouraged to consult their local and/or state health departments for advice concerning the levels reported in their water. These homeowners may wish to also consider some form of water treatment and/or replacement of some plumbing materials.

Initially the second stage of sampling was implemented to directly refute the former findings of boron in residential well water, which were erroneously reported due to a laboratory instrument problem. The results of the final four rounds of sampling have shown that boron levels are not of concern as concentrations are well below the TBC value of 600 ppb. The highest recorded concentration of boron detected during the second stage of sampling was 126 ppb at OSW 25, the remaining wells were found to have concentrations at least one order of magnitude lower than the TBC value. Therefore, it can be concluded that boron concentrations in groundwater adjacent to NSB-NLON are well below the TBC value, indicating that boron is no longer an element of concern for NSB-NLON or area residents.

APPENDIX A

RESIDENTIAL WELL SAMPLING FORMS

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 1488 Route 12
TELEPHONE NO.: ___ -

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: CAK
DATE AND TIME: 12-01-90 09:45
Sample # 120190-OSW1

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☒ OTHER: ___

WELL TYPE: BEDROCK ☐ SHALLOW OVERBURDEN ☒ 3' OTHER: ___

WELL DEPTH AND OTHER COMMENTS: 15' -

INTERIOR PLUMBING

TANK VOLUME: ~40 gallons

PUMP TYPE: SUBMERSIBLE ☐ JET ☒ OTHER: ___

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☒ OTHER: Plastic connections

WATER TREATMENT: YES ☐ NO ☒ DESCRIBE: filter (small drinking water) at kitchen faucet

WATER SAMPLING

WATER FLOW RATE: ~4 GPM 3gal/41 seconds 41/287 41/59?

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☒ NO ☐ EXPLAIN: ___

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES ☒ NO ☐ EXPLAIN: outside faucet ~5' away from storage tank

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☒ NO ☐ EXPLAIN: ___

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: ___ TEMP (°C) ___ pH ___ SPEC COND ___
LABORATORY ANALYSIS: TCL organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0036

FIELD QA DATA (Check appropriate samples collected)

☐ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD

WELL LOCATION SKETCH: ON BACK NOTE: SHOW UST's, ETC.

NO U.S.T's visible - House heated by wood; formerly (~20 years ago) heated by oil - above ground tank in the basement

SIDING/ROOFING
business

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 7 Pinelock Drive
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: CAK
DATE AND TIME: 12-04-90 10:30

WELL INFORMATION drilled in 1974 - 165' SAMPLE # 120190-OSW-2

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [X] OTHER: ____

WELL TYPE: BEDROCK [X] 165' SHALLOW OVERBURDEN [ ] OTHER: ____

WELL DEPTH AND OTHER COMMENTS: 165' - drilled in 1974

INTERIOR PLUMBING

TANK VOLUME: 20 GALLONS

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER: ____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: ____

WATER TREATMENT: YES [X] NO [ ] DESCRIBE: particulate filter (between holding tank and house)

WATER SAMPLING

WATER FLOW RATE: ~ 4 GPM 50 sec/3 gal

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: 20 Minutes

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN: faucet between holding tank and particulate filter

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: ____

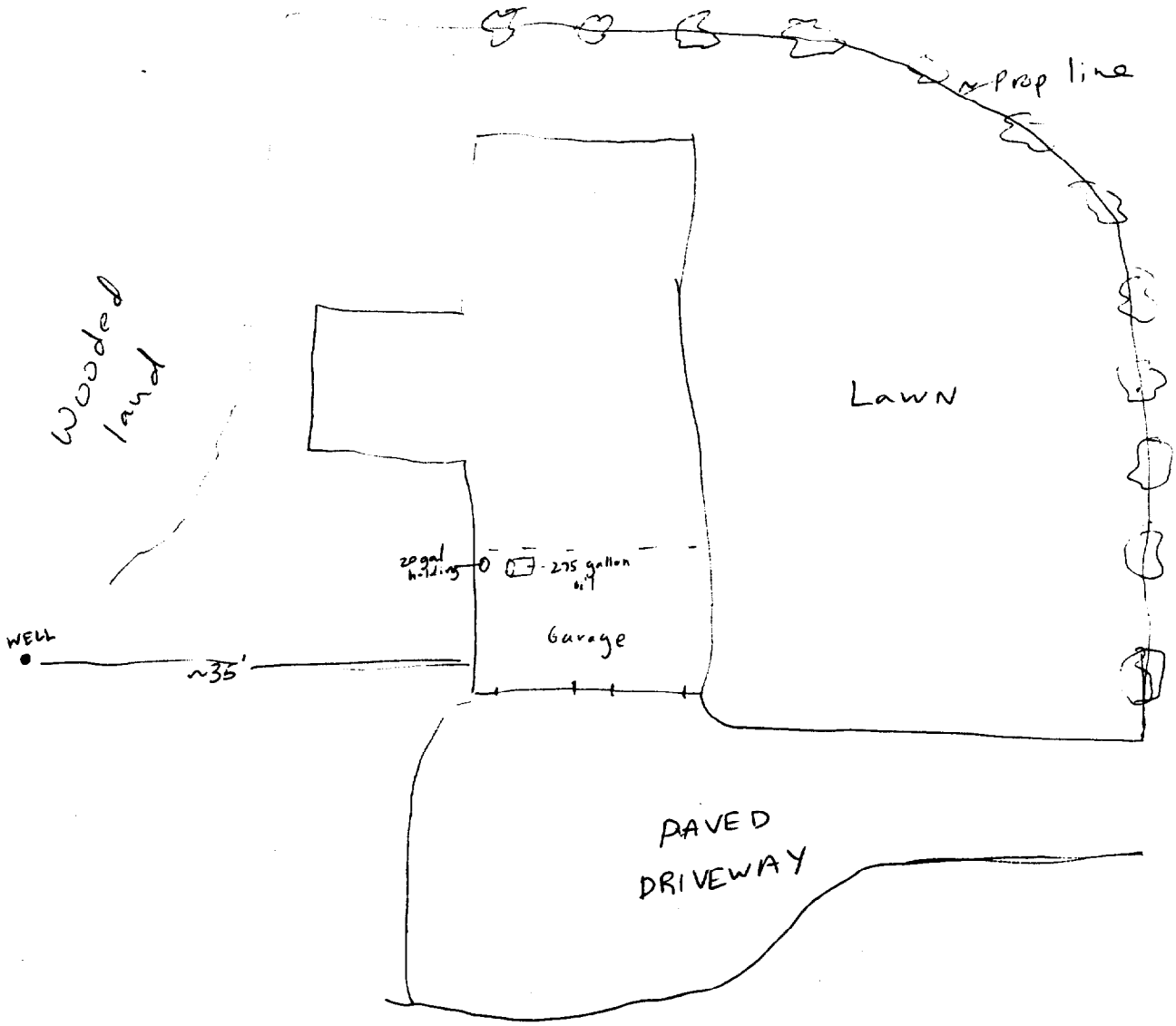
SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: ____ TEMP (°C) ____ pH ____ SPEC COND ____
LABORATORY ANALYSIS: TCL ORGANICS / TAL INORGANICS
CHAIN OF CUSTODY NO.: 0036 VOAs preserved to pH < 2

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.

on BACK


Prop line
Wooded land
Lawn
20 gal holding
275 gallon
WELL
~35'
Garage
PAVED DRIVEWAY

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____
STREET ADDRESS: 1053 Long Cove Rd
TELEPHONE NO.: _____

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: CAK
DATE AND TIME: 12-01-90
Sample # 120190-OSW3

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: 80' deep

INTERIOR PLUMBING

TANK VOLUME: _____

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER: _____

PIPE MATERIAL: COPPER [ ] LEAD [ ] PLASTIC [X] PVC OTHER: _____

WATER TREATMENT: YES [X] NO [ ] DESCRIBE: oil water separator straight from well; discharges to stream

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:

YES [ ] NO [X] EXPLAIN: Pump is on a timer, had to trip the on switch early to get enough water to sample

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:

YES [ ] NO [ ] EXPLAIN: _____

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:

YES [ ] NO [ ] EXPLAIN: Sample collected from discharge pipe/went through separator first

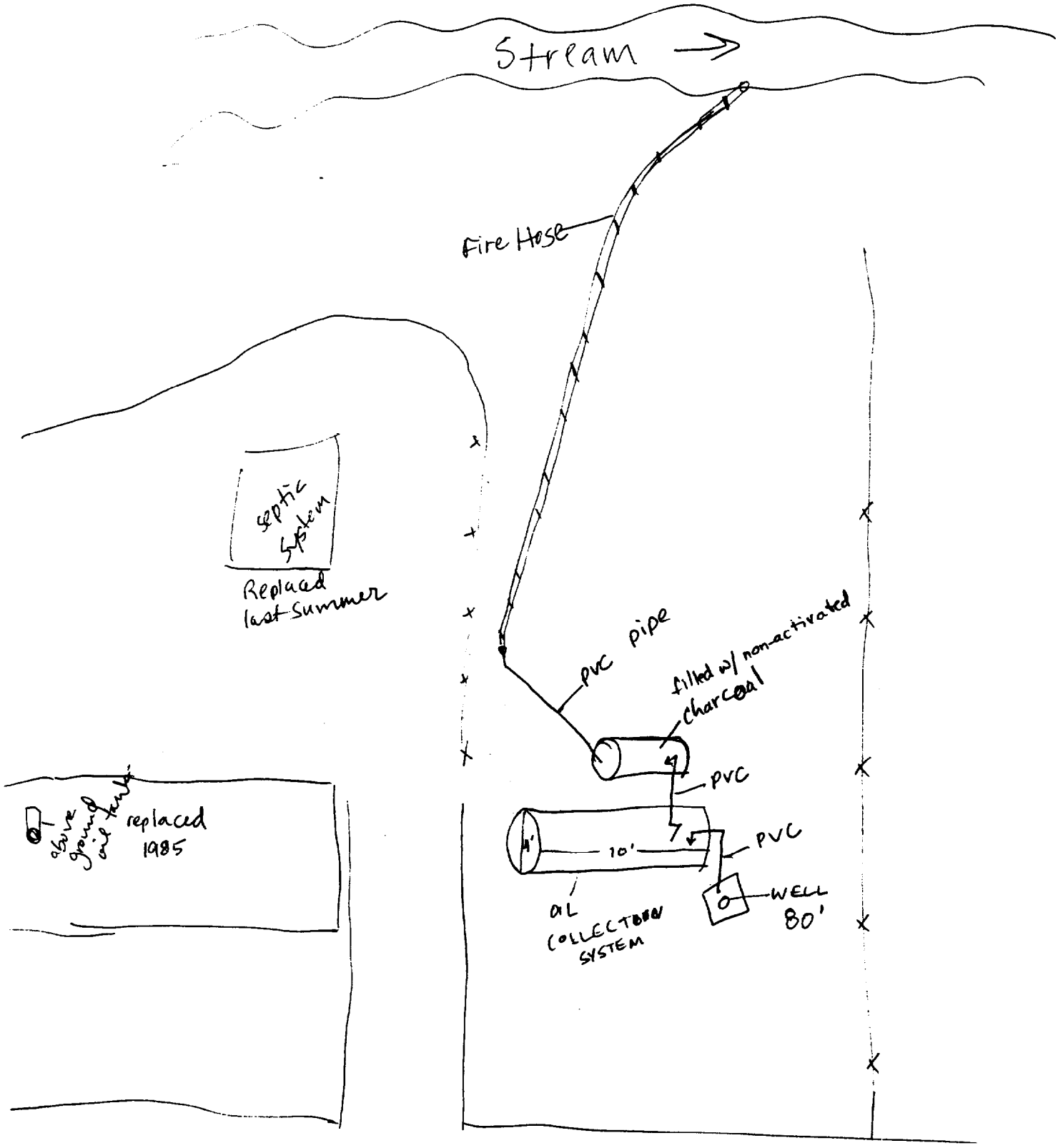
SAMPLE APPEARANCE: Clear, odor
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0036 VOA to pH < 2

FIELD QA DATA (Check appropriate samples collected)

[X] DUPLICATE 120190-OSW4 [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.

Use since 1967
Since 1984 - oil in water - used bottled water > Tested by DEP for potability
oily smelled
June, 1990 - water - beige & oily (floating product)
Shire Corp. set up treatment system - June 28,
DEP - James Santacruz



Took Pictures

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____
STREET ADDRESS: 1037 Long Cove Rd
TELEPHONE NO.: _____

PROJECT NUMBER: 1256-LO
SAMPLER: EJN
ASSISTANT: LM
DATE AND TIME: 12-04-90 11:30

12094 98 – OSW 5

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [ ] SHALLOW OVERBURDEN [X] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: dug well – 4' below surface built in 1949, well dug

INTERIOR PLUMBING

TANK VOLUME: 10-20 gallons

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER: _____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: _____

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: 9 GPM 3 gallons / 18 second

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [ ] NO [ ] EXPLAIN: _____

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [X] EXPLAIN: none – took sample directly adjacent to tank

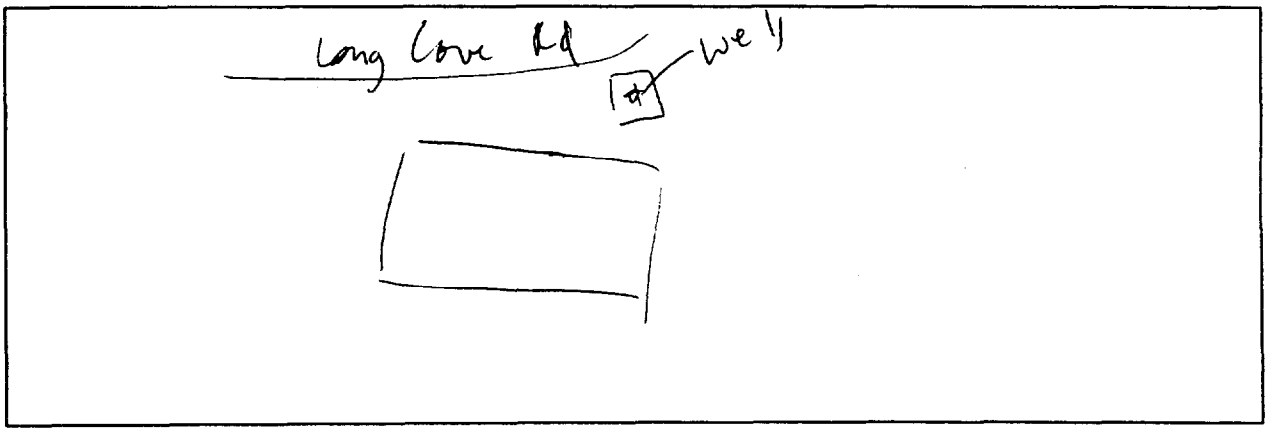
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: _____

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH 5.52 after 15 minutes SPEC COND _____
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0036

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



9:00 Friday Morning

ATLANTIC ENVIRONMENTAL SERVICES, INC.

NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 1458 Route 12
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: LM
DATE AND TIME: 12-04-90
ID# 120490 - OSW 6

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER:

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER:

WELL DEPTH AND OTHER COMMENTS: 47' 46 1/2 GPM

INTERIOR PLUMBING

TANK VOLUME: ~60 GAL

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER:

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER:

WATER TREATMENT: YES [ ] NO [X] DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: 3GAL / 16sec GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN:

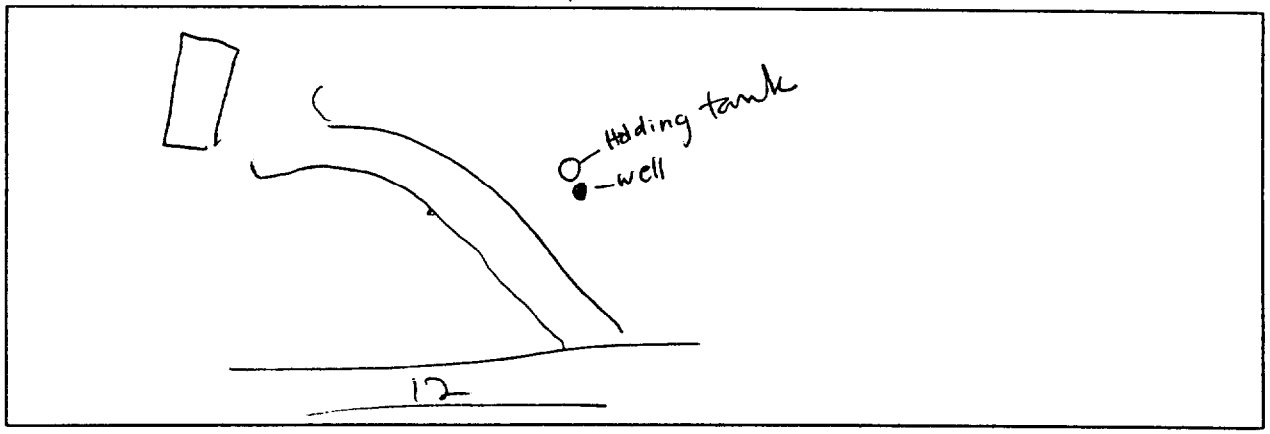
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN:

SAMPLE APPEARANCE:
SAMPLE CHEMISTRY: TEMP (°C) pH 5.6 after 15 SPEC COND
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0037

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 40 Pinelock Dr
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: LM
DATE AND TIME: 12-04-90 14:50
120490 – OSW 7

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [ ] SHALLOW OVERBURDEN [X] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: _____

INTERIOR PLUMBING

TANK VOLUME: ~20 gallons

PUMP TYPE: SUBMERSIBLE [ ] JET [ ] OTHER: _____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: _____

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: _____

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN: _____

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [ ] NO [ ] EXPLAIN: Sample collected from household faucet closest to well; no outside spigots

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH 5.87 after 15 min. SPEC COND _____
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0037

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.

Above ground oil tank in basement.

ATLANTIC ENVIRONMENTAL SERVICES, INC.

NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 1292 Rte 12
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: LM
DATE AND TIME: 12-04-90
ID 120490-OSW 8 (N)

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER:

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER:

WELL DEPTH AND OTHER COMMENTS: ~90' ~1958 (dug well 1st - built ~ 1951)

INTERIOR PLUMBING

TANK VOLUME: 20 gallons

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER:

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: PVC [X]

WATER TREATMENT: YES [ ] NO [X] DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: ~~3~~ 1.3 min / 3 gal GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [X] EXPLAIN: none - sampled from faucet ~~on~~ on holding tank

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN:

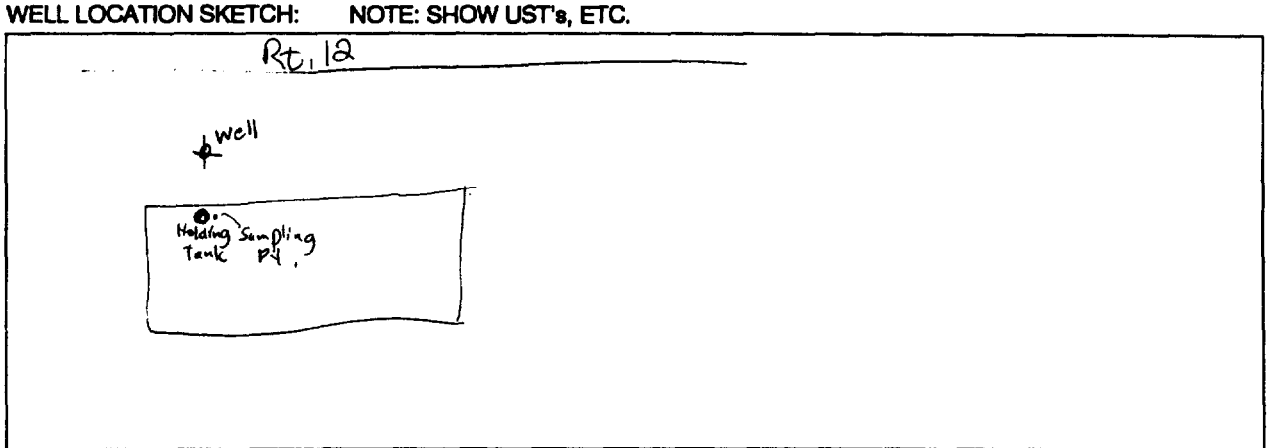
SAMPLE APPEARANCE:
SAMPLE CHEMISTRY: TEMP (°C) pH 5.75 after 15 minutes SPEC COND
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics / ~~TCL~~
CHAIN OF CUSTODY NO.: 0037

have salt problem in winter resulting from runoff from highway

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



pH after 15 minute 5.75

Town of Groton tested water
found high salt - non-potable
provided water for ~ 1 year

late 1950's - early 1960
Dredge spoils backed up onto their
property - salt water in pipes - had dug well at time
tenants had to move out; plumbing had to be ~~changed~~ replaced
drilled new well in 1958

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 1477 Route 12
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: LM
DATE AND TIME: 12-04-90 - 18:00
120490-OSW9

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [X] OTHER:

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER:

WELL DEPTH AND OTHER COMMENTS: deep (in summer water turns rusty after it runs for a long time (> 1 hour)

INTERIOR PLUMBING

TANK VOLUME: 20 gallon

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER:

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER:

WATER TREATMENT: YES [ ] NO [X] DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [ ] EXPLAIN: None visible - sampled from spigot adjacent to holding tank

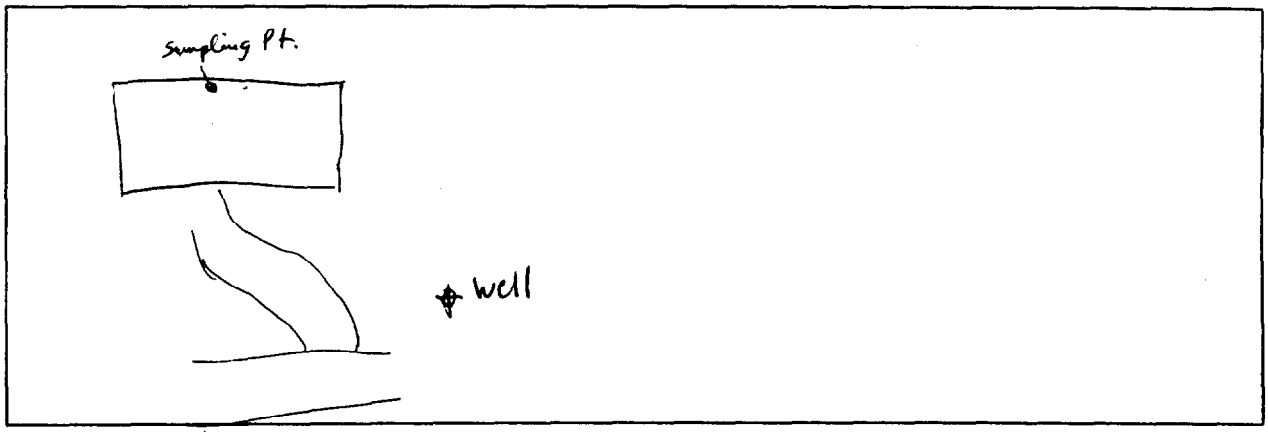
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN:

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: TEMP (°C) pH 5.63 SPEC COND
LABORATORY ANALYSIS: TCL organics / TAL Inorganics
CHAIN OF CUSTODY NO.:

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 10 Sleepy Hollow
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: EJN
ASSISTANT: LM
DATE AND TIME: 12-04-90 @ 19:15
120490-OSW10

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER:

WELL TYPE: BEDROCK [ ] SHALLOW OVERBURDEN [X] OTHER:

WELL DEPTH AND OTHER COMMENTS: 4 1/2" diameter

INTERIOR PLUMBING

TANK VOLUME: 500 gallons / bypassed tank to purge / had to sample from tank

PUMP TYPE: SUBMERSIBLE [ ] JET [ ] OTHER:

PIPE MATERIAL: COPPER [ ] (bronze to homes) LEAD [ ] PLASTIC [ ] OTHER:

WATER TREATMENT: YES [X] NO [ ] DESCRIBE: treatment for low pH w/ $CaCO_2$ - Mg precip. problem

WATER SAMPLING

WATER FLOW RATE: ~ 4 GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [X] EXPLAIN: none

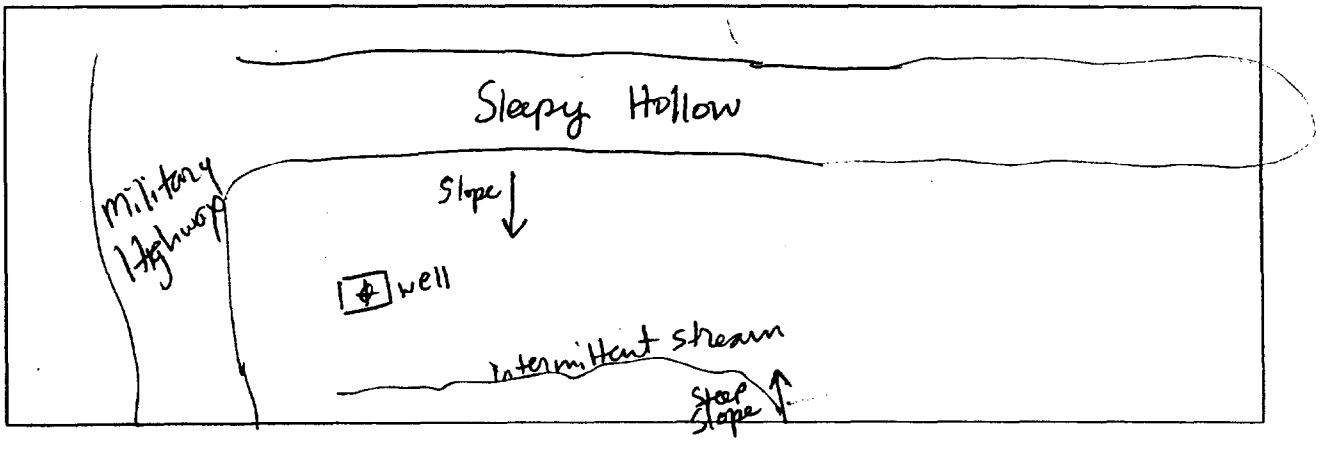
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN:

SAMPLE APPEARANCE:
SAMPLE CHEMISTRY: TEMP (°C) pH SPEC COND
LABORATORY ANALYSIS: ICL organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0037

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



WELL Served mobile H[illegible] [illegible]

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____ PROJECT NUMBER: 1256-10
STREET ADDRESS: 18 Sleepy Hollow SAMPLER: EJM
ASSISTANT: LM
TELEPHONE NO.: _____ DATE AND TIME: 12-05-90 13:30

WELL INFORMATION 120590-0SW11

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [ ] SHALLOW OVERBURDEN [ ] OTHER: Spring

WELL DEPTH AND OTHER COMMENTS: at surface, seeping out of rocks

INTERIOR PLUMBING

TANK VOLUME: —

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER: flows by gravity from spring to pump house pumped into house

PIPE MATERIAL: ABS/PVC & COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: _____

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: _____ GPM owner reported that flow rate from spring is just a trickle

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [ ] NO [X] EXPLAIN: Spring would not recharge

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [X] EXPLAIN: Sampled from standing water in pumphouse - sl. organic sheen & debris on surface of the water

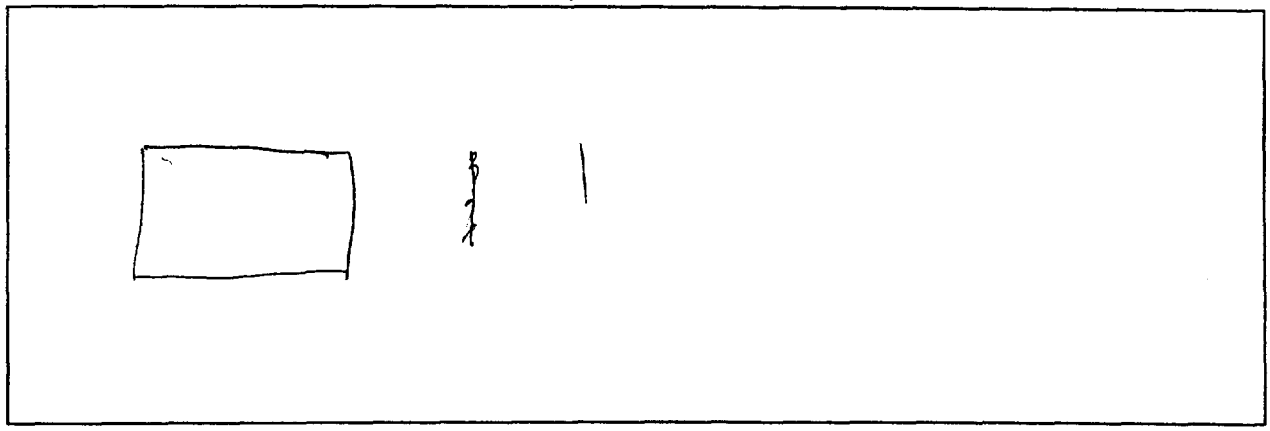
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: _____

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH 6.1 SPEC COND _____
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0638

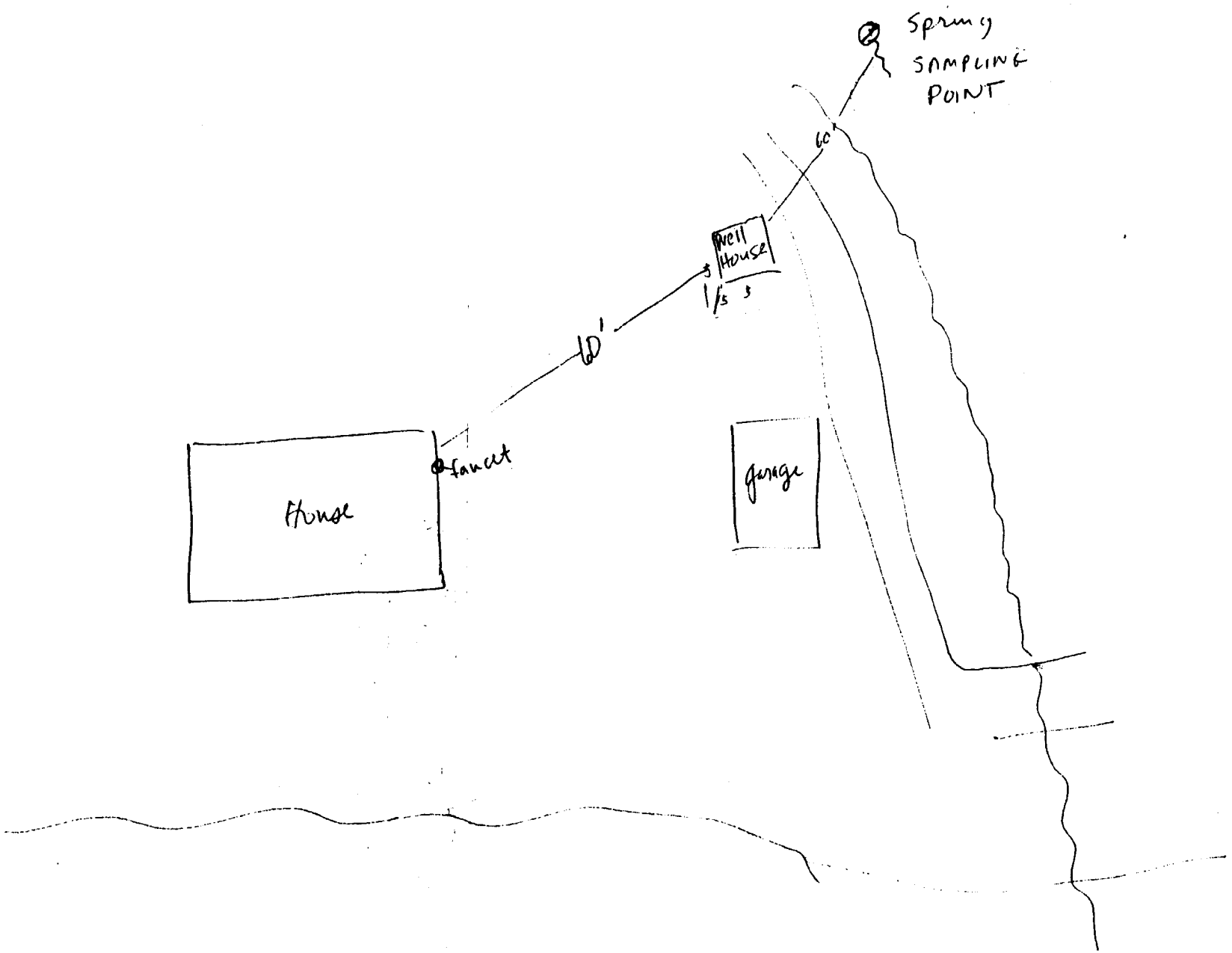
FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



oil tank in basement



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 1444 Route 12
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: GJN
ASSISTANT: LM
DATE AND TIME: 120590 14:30
120590 - DSW12

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER:

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER:

WELL DEPTH AND OTHER COMMENTS: 50' - 1960's

INTERIOR PLUMBING

TANK VOLUME: 20 gallons

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER:

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER:

WATER TREATMENT: YES [ ] NO [X] DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: 4+ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN: None

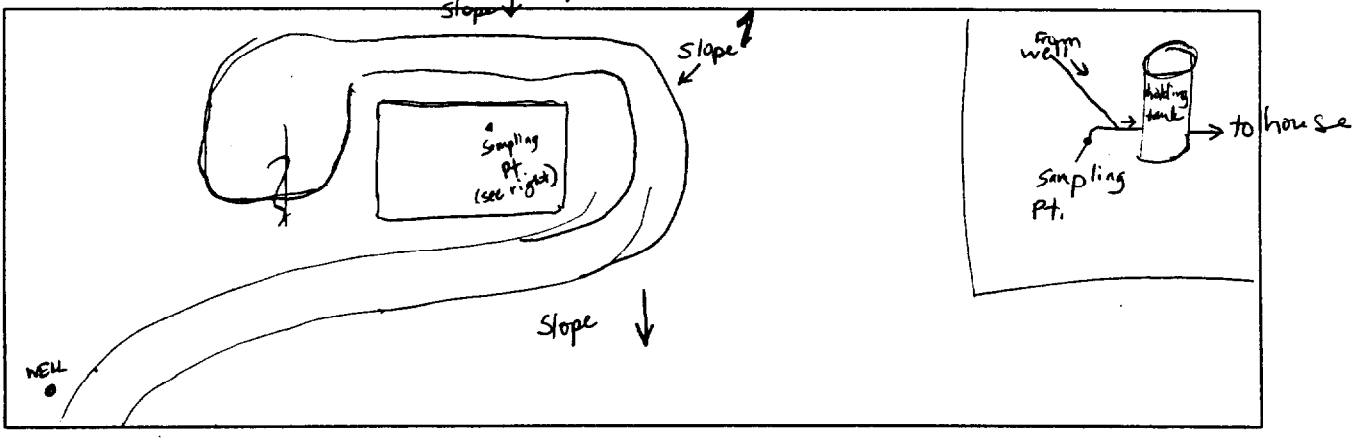
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: Sample collected from faucet located adjacent to ~~tube~~ holding tank - some water may have come directly from well, some from tank

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: TEMP (°C) pH 6.1 SPEC COND
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0038

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____ PROJECT NUMBER: 256-10
STREET ADDRESS: 162 Military Highway SAMPLER: EIN
ASSISTANT: LM
TELEPHONE NO.: _____ DATE AND TIME: 12-05-90 15:25
120590-OSW13

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: deep

INTERIOR PLUMBING

TANK VOLUME: 20 gallons

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER: _____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [X] from well into house OTHER: _____

WATER TREATMENT: YES [X] NO [ ] DESCRIBE: particulate

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:

YES [ ] NO [ ] EXPLAIN: _____

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:

YES [X] NO [ ] EXPLAIN: ~~yes - bypassed filter~~

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:

YES [X] NO [ ] EXPLAIN: yes, bypassed filter - sampled from sink approx 6' away from holding tank; removed filter cartridge while purging & sampling

SAMPLE APPEARANCE: _____

SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH 6.70 SPEC COND _____

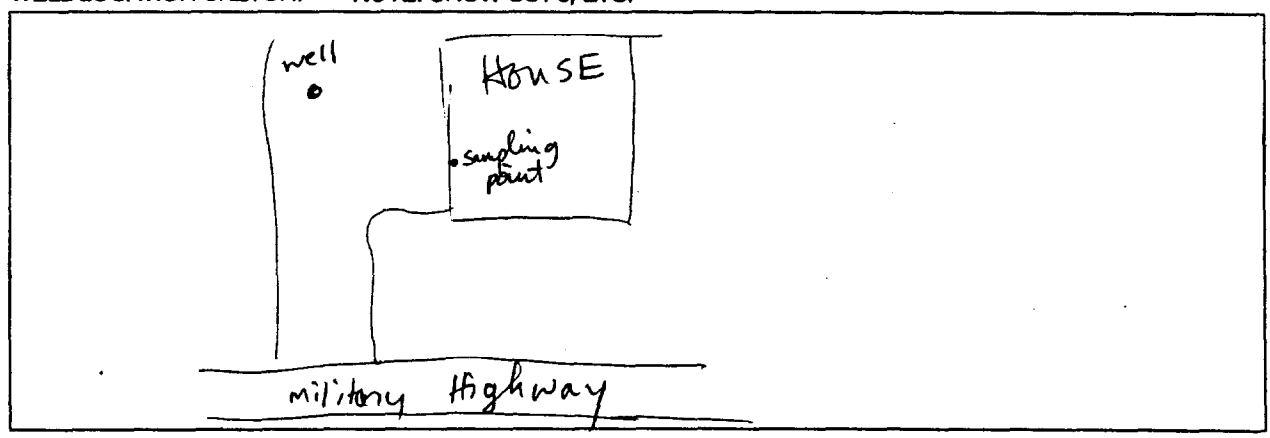
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics

CHAIN OF CUSTODY NO.: 0038

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [X] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 48 Pinelock Drive
TELEPHONE NO.:

PROJECT NUMBER: 1256-10
SAMPLER: CM
ASSISTANT: EJN
DATE AND TIME: 12-05-90 16:20
120590 - 05W14

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER:

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER:

WELL DEPTH AND OTHER COMMENTS: 300'

INTERIOR PLUMBING

TANK VOLUME: 20 gallons

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER:

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [✓] from well to house OTHER:

WATER TREATMENT: YES [ ] NO [X] DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: 3 GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:

YES [X] NO [ ] EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:

YES [ ] NO [ ] EXPLAIN: Sampled from tap adjacent to holding tank

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:

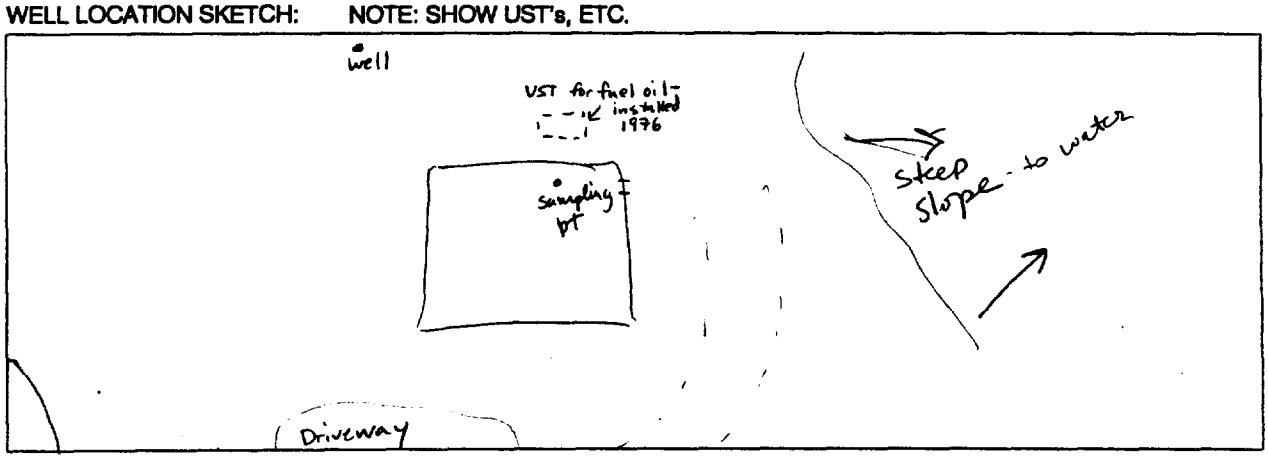
YES [X] NO [ ] EXPLAIN: None

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: TEMP (°C) pH 7.0 SPEC COND
LABORATORY ANALYSIS: TCL organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0038

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: PROJECT NUMBER: 1256-10
STREET ADDRESS: 16 Sleepy Hollow SAMPLER: LM
ASSISTANT: EJN
TELEPHONE NO.: DATE AND TIME: 12-06-90 17:30
120690-OSW15

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☐ OTHER: Tenant ☒

WELL TYPE: BEDROCK ☐ SHALLOW OVERBURDEN ☒ OTHER:

WELL DEPTH AND OTHER COMMENTS:

INTERIOR PLUMBING

TANK VOLUME: 5-20 gallons

PUMP TYPE: SUBMERSIBLE ☐ JET ☒ OTHER:

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☐ OTHER:

WATER TREATMENT: YES ☐ NO ☒ DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: GPM 17 seconds/gallons

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☒ NO ☐ EXPLAIN: Too

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES ☒ NO ☐ EXPLAIN: took sample ~10' away from water tank

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☒ NO ☐ EXPLAIN:

SAMPLE APPEARANCE: clear
SAMPLE CHEMISTRY: TEMP (°C) 13° pH 5.54 after 15 minutes SPEC COND 980 4 mos
LABORATORY ANALYSIS: TCL Organics / TAL Inorganics
CHAIN OF CUSTODY NO.: 0038

FIELD QA DATA (Check appropriate samples collected)

☒ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD
120690-OSW16

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____ PROJECT NUMBER: 1256-11
STREET ADDRESS: 1140 N. Pleasant Valley SAMPLER: _____
ASSISTANT: _____
TELEPHONE NO.: _____ DATE AND TIME: 2-5-91
020591-05W21

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: 90

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: ~90'

INTERIOR PLUMBING

TANK VOLUME: ~10 gallons

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER: _____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: Black PVC from well

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: particulate filter between tank & faucets

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: _____

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [ ] EXPLAIN: _____

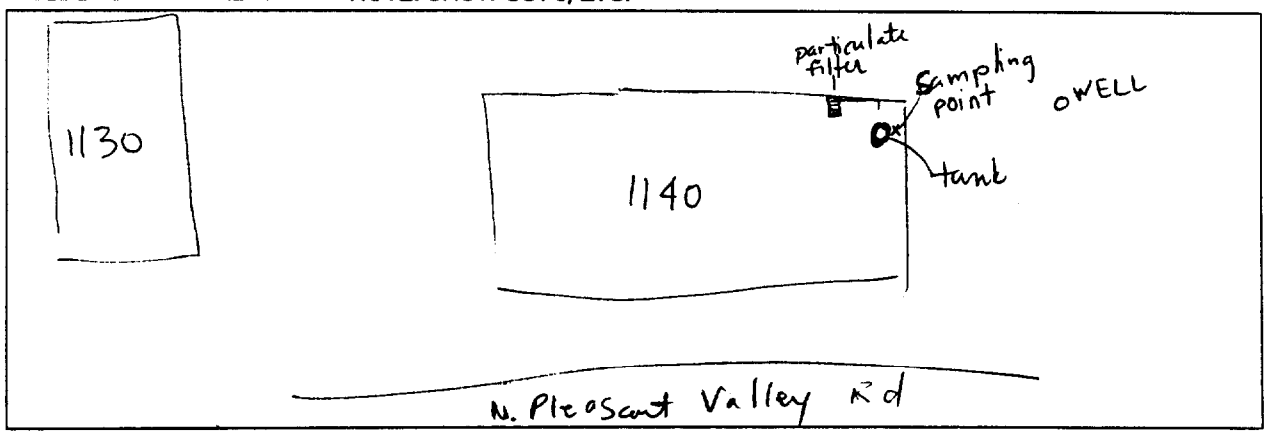
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: _____

SAMPLE APPEARANCE: _____
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: _____

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: ___
STREET ADDRESS: 1130 N. Pleasant Valley
TELEPHONE NO.: ___

PROJECT NUMBER: 1256-10
SAMPLER: EN/LM
ASSISTANT: BP
DATE AND TIME: 2-5-91 10:00
020591-0SW22

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: ___

WELL TYPE: BEDROCK [ ] SHALLOW OVERBURDEN [X] OTHER: ___

WELL DEPTH AND OTHER COMMENTS: ___

INTERIOR PLUMBING

TANK VOLUME: ___

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER: ___

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: ___

WATER TREATMENT: YES [X] NO [ ] DESCRIBE: particulate filter

WATER SAMPLING

WATER FLOW RATE: ___ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: ___

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [ ] EXPLAIN: ___

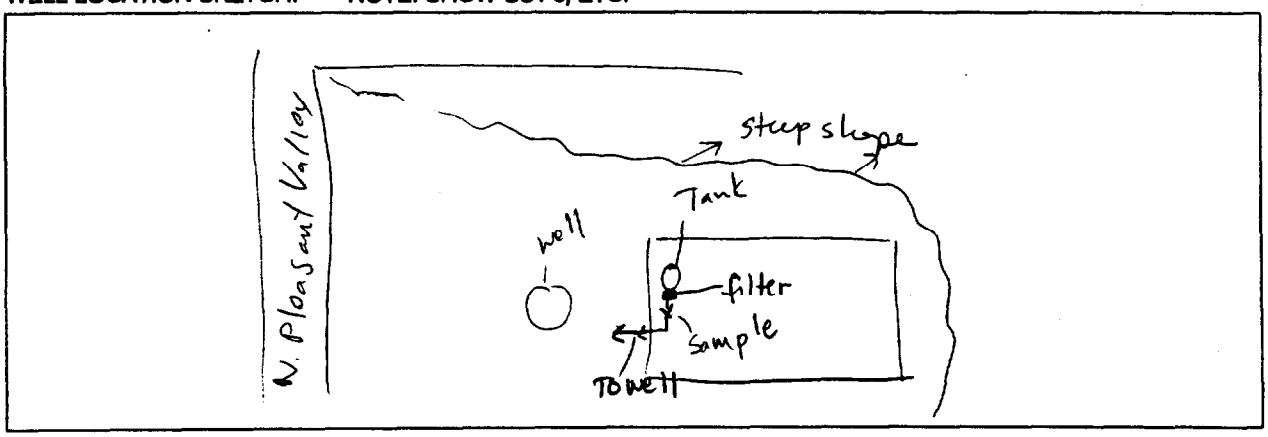
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: ___

SAMPLE APPEARANCE: ___
SAMPLE CHEMISTRY: ___ TEMP (°C) ___ pH ___ SPEC COND ___
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: ___

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _
STREET ADDRESS: 1198 N. Pleasant Valley Rd
TELEPHONE NO.: _____

PROJECT NUMBER: 1256-11
SAMPLER: _____
ASSISTANT: _____
DATE AND TIME: 2-5-91
020591-0SW~~22~~23 (FD)

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☒ OTHER: _____

WELL TYPE: BEDROCK ☐ SHALLOW OVERBURDEN ☒ OTHER: _____

WELL DEPTH AND OTHER COMMENTS: _____

INTERIOR PLUMBING

TANK VOLUME: ~20 gal.

PUMP TYPE: SUBMERSIBLE ☐ JET ☒ OTHER: _____

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☒ OTHER: _____

WATER TREATMENT: YES ☐ NO ☐ DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☒ NO ☐ EXPLAIN: purged from outside faucet

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING: NA
YES ☐ NO ☐ EXPLAIN: _____

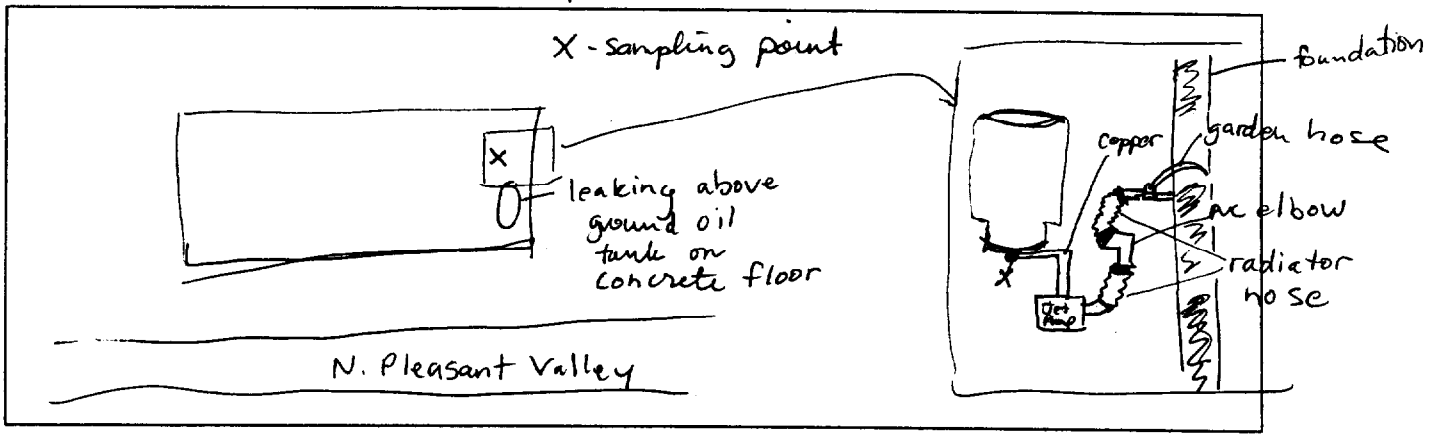
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☒ NO ☐ EXPLAIN: _____

SAMPLE APPEARANCE: _____
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: 0134

FIELD QA DATA (Check appropriate samples collected)

☐ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _
STREET ADDRESS: N. Pleasant Valley Rd

TELEPHONE NO.: _____

PROJECT NUMBER: 1256-11
SAMPLER: EN/LM
ASSISTANT: BP
DATE AND TIME: 2-5-91 14:10
020591-05W24

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☒ OTHER: Tenant

WELL TYPE: BEDROCK ☒ SHALLOW OVERBURDEN ☐ OTHER: _____

WELL DEPTH AND OTHER COMMENTS: _____

INTERIOR PLUMBING

TANK VOLUME: ~40 gallons

PUMP TYPE: SUBMERSIBLE ☒ JET ☐ OTHER: _____

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☐ OTHER: _____

WATER TREATMENT: YES ☐ NO ☒ DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☐ NO ☐ EXPLAIN: Purged for 35 minutes x ~1.5-2 GPM

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES ☒ NO ☐ EXPLAIN: Sample taken from faucet ~8 feet from tank

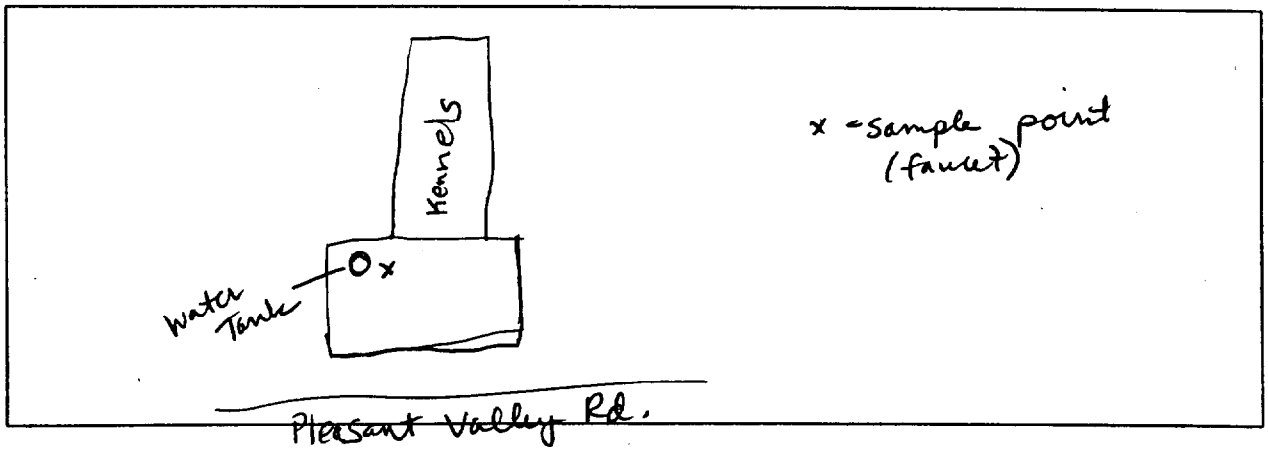
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☒ NO ☐ EXPLAIN: _____

SAMPLE APPEARANCE: _____
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: 0134

FIELD QA DATA (Check appropriate samples collected)

☐ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: —
STREET ADDRESS: 1320 Route 12
TELEPHONE NO.: —

PROJECT NUMBER: 1256-11-02
SAMPLER: EN/BP
ASSISTANT: LM
DATE AND TIME: 2-5-90 16:30
020591-OSW25

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [X] OTHER: ____

WELL TYPE: BEDROCK [ ] SHALLOW OVERBURDEN [ ] OTHER: Not known — homeowner didn't know where well was

WELL DEPTH AND OTHER COMMENTS: ____

INTERIOR PLUMBING

TANK VOLUME: ~ 20 gallons

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER: ____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: ____

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: ____

WATER SAMPLING

WATER FLOW RATE: ____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: 25 minutes

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [ ] NO [ ] EXPLAIN: ____

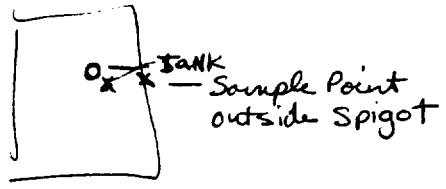
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [ ] NO [ ] EXPLAIN: ____

SAMPLE APPEARANCE: ____
SAMPLE CHEMISTRY: ____ TEMP (°C) ____ pH ____ SPEC COND ____
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: 0134

FIELD QA DATA (Check appropriate samples collected)

[X] DUPLICATE OSW26 [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ROUTE 12

ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____
STREET ADDRESS: 1469 Route 12
TELEPHONE NO.: _____

PROJECT NUMBER: 1256-11-02
SAMPLER: EN / LM / BP
ASSISTANT: _____
DATE AND TIME: 2-6-91 13:15
020691-OSW28

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☐ OTHER: Tenant - didn't know location

WELL TYPE: BEDROCK ☐ SHALLOW OVERBURDEN ☐ OTHER: _____

WELL DEPTH AND OTHER COMMENTS: _____

INTERIOR PLUMBING

12:45 - Start Purging

TANK VOLUME: ~20 gallons

PUMP TYPE: SUBMERSIBLE ☐ JET ☒ OTHER: _____

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☐ OTHER: _____

WATER TREATMENT: YES ☐ NO ☒ DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☐ NO ☐ EXPLAIN: _____

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES ☐ NO ☐ EXPLAIN: _____

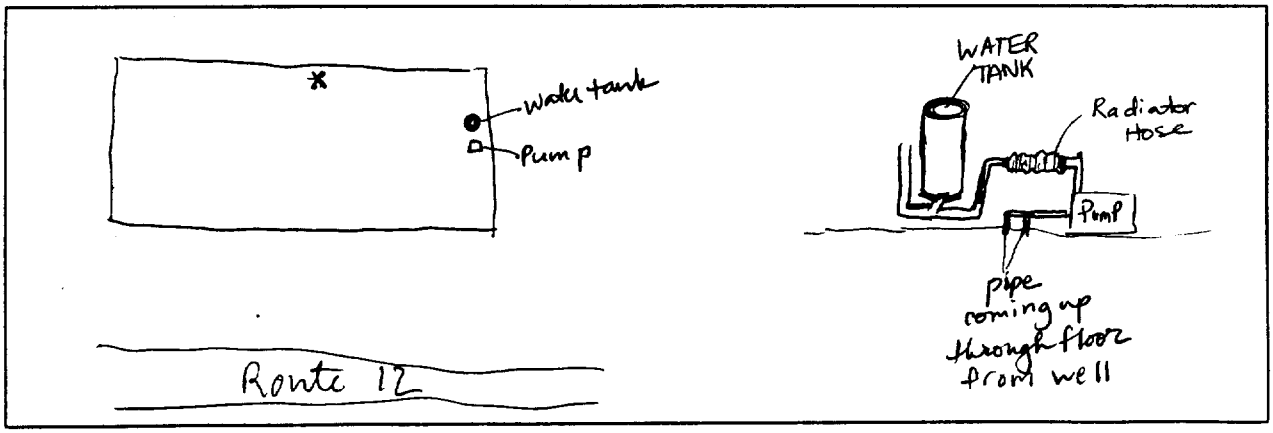
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☐ NO ☐ EXPLAIN: _____

SAMPLE APPEARANCE: _____
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: _____
CHAIN OF CUSTODY NO.: IAL Inorganics 0135

FIELD QA DATA (Check appropriate samples collected)

☐ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 1323 Route 12 — Groton
TELEPHONE NO.:

PROJECT NUMBER: 1256-11-02
SAMPLER: Erik Ness / Lynn Metcalf
ASSISTANT:
DATE AND TIME: 02-07-91 12:15
020791-CSW29

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER:

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER:

WELL DEPTH AND OTHER COMMENTS: 120

INTERIOR PLUMBING

TANK VOLUME: 35

PUMP TYPE: SUBMERSIBLE [ ] JET [X] OTHER:

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER:

WATER TREATMENT: YES [ ] NO [X] DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: 28 min

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN:

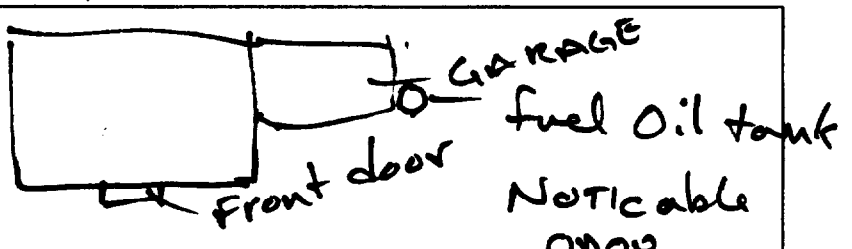
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN:

SAMPLE APPEARANCE: Clear
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: 0135

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [ ] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: _____
STREET ADDRESS: 1319 Baldwin Hill Rd
TELEPHONE NO.: _____

PROJECT NUMBER: 1256-11-02
SAMPLER: LM/EN
ASSISTANT: BP
DATE AND TIME: 2-07-91 13:15
020791-05W30

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: _____

INTERIOR PLUMBING

TANK VOLUME: _____

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER: _____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: _____

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: _____ GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [ ] NO [ ] EXPLAIN: _____

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN: _____

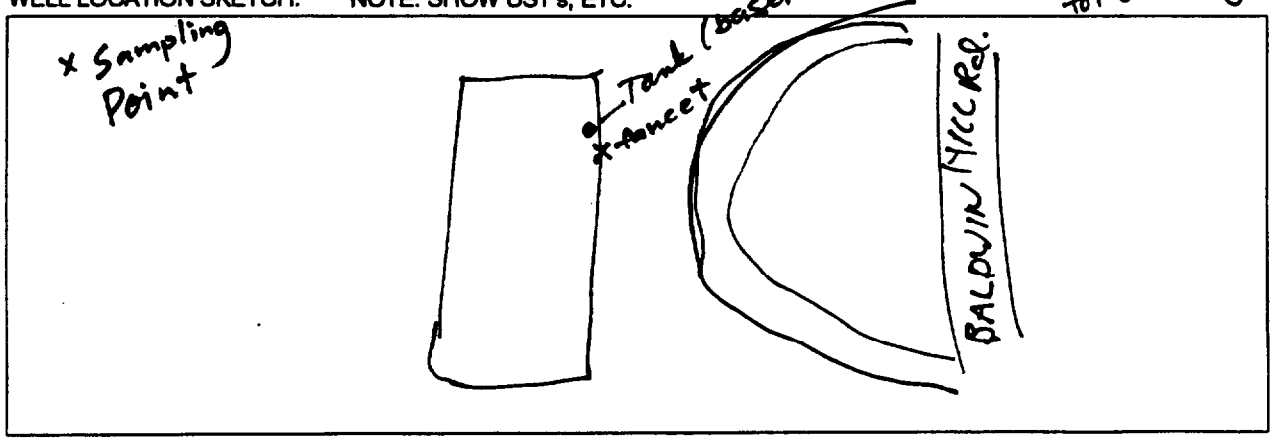
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [ ] NO [ ] EXPLAIN: _____

SAMPLE APPEARANCE: _____
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TAL Inorganics
CHAIN OF CUSTODY NO.: 0135

FIELD QA DATA (Check appropriate samples collected)

[ ] DUPLICATE [ ] EQUIPMENT RINSATE [X] MS / MSD Did not use for analyses

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME: ~~~
STREET ADDRESS: 1600 Military Hwy
TELEPHONE NO.: _____

PROJECT NUMBER: 1256-11
SAMPLE NUMBER: 070291 OSW 32
SAMPLER: EJN
ASSISTANT: _____
DATE AND TIME: 7-2-91 1325

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER [X] OBSERVATION [ ] OTHER: _____

WELL TYPE: BEDROCK [X] SHALLOW OVERBURDEN [ ] OTHER: _____

WELL DEPTH AND OTHER COMMENTS: Presumed Bedrock Homeowner unsure but Outcrop and Ledge on Property Suggest Bedrock well 125' deep

INTERIOR PLUMBING

TANK VOLUME: ~20 GALLON

PUMP TYPE: SUBMERSIBLE [X] JET [ ] OTHER: _____

PIPE MATERIAL: COPPER [X] LEAD [ ] PLASTIC [ ] OTHER: _____

WATER TREATMENT: YES [ ] NO [X] DESCRIBE: _____

WATER SAMPLING

WATER FLOW RATE: .3 GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES [X] NO [ ] EXPLAIN: _____

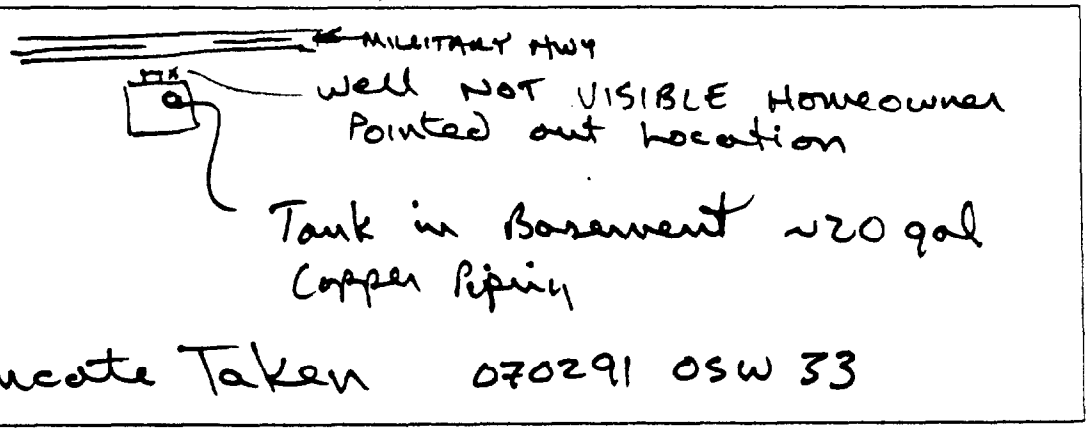
FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES [X] NO [ ] EXPLAIN: Sampled at Kitchen Tap Couldn't Sample at Tank

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES [X] NO [ ] EXPLAIN: _____

SAMPLE APPEARANCE: _____
SAMPLE CHEMISTRY: _____ TEMP (°C) _____ pH _____ SPEC COND _____
LABORATORY ANALYSIS: TCL ABN TCL PCB/PEST Metals + CN⁻ Volatiles 524.2
CHAIN OF CUSTODY NO.: 143

FIELD QA DATA (Check appropriate samples collected) EJN NO ER
[X] DUPLICATE [X] EQUIPMENT RINSATE [X] MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 150 Military Highway
TELEPHONE NO.:

PROJECT NUMBER: 1256-22-04-01
SAMPLE NUMBER: 030893 OSW 33
SAMPLER: EJN
ASSISTANT:
DATE AND TIME: 3-8-93 / 1330

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☒ OTHER:

WELL TYPE: BEDROCK ☐ SHALLOW OVERBURDEN ☐ OTHER:

WELL DEPTH AND OTHER COMMENTS: N/A

INTERIOR PLUMBING

TANK VOLUME: 30 gal

PUMP TYPE: SUBMERSIBLE ☐ JET ☒ OTHER:

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☒ OTHER: Some fittings Galvanized Steel also

WATER TREATMENT: YES ☐ NO ☒ DESCRIBE:

WATER SAMPLING

WATER FLOW RATE: 3 GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☒ NO ☐ EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES ☒ NO ☐ EXPLAIN:

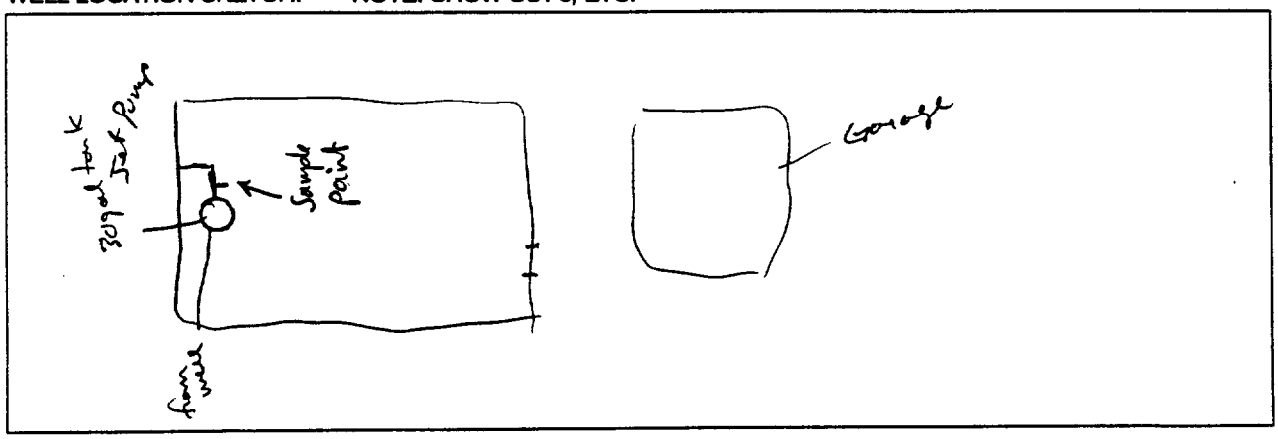
SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☒ NO ☐ EXPLAIN:

SAMPLE APPEARANCE: Clear
SAMPLE CHEMISTRY: TEMP (°C) 10.5 pH 6.0 SPEC COND
LABORATORY ANALYSIS: Metals + Boron, Cyanide, chloride
CHAIN OF CUSTODY NO.:

FIELD QA DATA (Check appropriate samples collected)

☐ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.



ATLANTIC ENVIRONMENTAL SERVICES, INC. NAVY IR PROJECT

RESIDENTIAL WELL SAMPLING FORM

HOMEOWNER NAME:
STREET ADDRESS: 152 Mulberry Hershey
TELEPHONE NO.:

PROJECT NUMBER: 1256 - 22-09-01
SAMPLE NUMBER: 030893 OSW 34
SAMPLER: ETN
ASSISTANT:
DATE AND TIME: 3-8-93 / 1350

WELL INFORMATION

SOURCE OF INFORMATION: HOMEOWNER ☐ OBSERVATION ☒ OTHER:

WELL TYPE: BEDROCK ☐ SHALLOW OVERBURDEN ☐ OTHER:

WELL DEPTH AND OTHER COMMENTS: N/A

INTERIOR PLUMBING

TANK VOLUME: 50 gallon

PUMP TYPE: SUBMERSIBLE ☒ JET ☐ OTHER:

PIPE MATERIAL: COPPER ☒ LEAD ☐ PLASTIC ☒ OTHER:

WATER TREATMENT: YES ☒ NO ☐ DESCRIBE: ~~Note~~ Particulate filter / no cartridge was inside at time of sampling

WATER SAMPLING

WATER FLOW RATE: 5 GPM

WATER RUN 20 MINUTES MINIMUM OR EVALUATION OF 120% TANK VOLUME, WHICHEVER IS GREATER:
YES ☒ NO ☐ EXPLAIN:

FAUCET OR TAP AERATORS REMOVED PRIOR TO SAMPLING:
YES ☒ NO ☐ EXPLAIN:

SAMPLE COLLECTED BEFORE WATER OR LEAD PIPING TREATMENT SYSTEMS:
YES ☒ NO ☐ EXPLAIN:

SAMPLE APPEARANCE: Clear
SAMPLE CHEMISTRY: TEMP (°C) 11.0 pH 5.9 SPEC COND
LABORATORY ANALYSIS: Metals + chloride, Boron, Cyanide
CHAIN OF CUSTODY NO.:

FIELD QA DATA (Check appropriate samples collected)

☐ DUPLICATE ☐ EQUIPMENT RINSATE ☐ MS / MSD

WELL LOCATION SKETCH: NOTE: SHOW UST's, ETC.