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Seep and Sediment Data Package
for
Round 8

Portsmouth Naval Shipyard
Kittery, Maine

Northern Division
Naval Facilities Engineering Command
Contract Number N62472-90-D-1298
Contract Task Order 0232

August 1997

Brown & Root Environmental
A Division of Halliburton NUS Corporation

SEEP AND SEDIMENT DATA PACKAGE
FOR
ROUND 8

PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Northern Division
Environmental Branch Code 18
Naval Facilities Engineering Command
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Lester, Pennsylvania 19113-2090

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1.0 INTRODUCTION

This data package for the Portsmouth Naval Shipyard (PNS) in Kittery Maine, has been prepared for the Northern Division (NORTHDIV) Naval Facilities Engineering Command (NAVFAC) by Brown & Root Environmental (B&R Environmental) under the Comprehensive Long-Term Environmental Action Navy (CLEAN), Contract Number N62472-90 D-1298, Contract Task Order (CTO) 232.

The data provided within this data package were collected as part of a seep and sediment sampling event established for PNS to evaluate the onshore and offshore contaminant migration patterns as well as to facilitate the implementation of a cost effective, long-term monitoring program for various sites of concern, if it should be necessary. The data provided within this package were collected during the most recent sampling event (Round 8) in April 1997, at the PNS. A total of 14 seep and 14 sediment samples were collected from locations defined in the Technical Memorandum on Seep Sampling (B&R Environmental, November, 1996).

The information contained within this data package consists of the following:

- Data summary tables for all of the seep and sediment samples collected.
- Analytical data tables showing the results of the Round 7 and 8 seep and sediment sampling.
- Chain of Custody Records for the Round 8 seep and sediment samples.
- Sample log sheets for the Round 8 seep and sediment samples.
- Tag Maps showing the Round 8 results of all positive detections in seep and sediment samples presented as follows:
  - Plate 1 - Operable Unit 3 - Jamaica Island Landfill (Clark's Cove)
  - Plate 2 - Operable Unit 3 - Jamaica Island Landfill (Backchannel)
  - Plate 3 - Backchannel (Topeka Pier Area)

SEEP AND SEDIMENT SAMPLE DATA SUMMARIES

PORTSMOUTH NAVAL SHIPYARD
SUMMARY OF SEEP RESULTS

Parameter	Frequency of Detection	Range (Min-Max)	Average of Positive Detections	Average of All Values (1)	Location of Maximum Positive Detection
SEMIVOLATILES (ng/L)					
1-METHYLNAPHTHALENE	5/14	5.95-41.6	20.6	12.5	SP-1003
1-METHYLPHENANTHRENE	11/14	0.1-16.7	4.3	3.9	BC-1017
2,3,5-TRIMETHYLNAPHTHALENE	6/14	0.2-13	4.0	3.4	SP-1003
2,6-DIMETHYLNAPHTHALENE	5/14	3.6-27.5	9.1	5.2	SP-1003
2-METHYLNAPHTHALENE	4/14	7.6-39.1	16.3	7.7	SP-1003
ACENAPHTHENE	5/14	1-110.8	44.2	18.4	CC-1004.5
ACENAPHTHYLENE	6/14	0.2-12	7.4	5.5	CC-1004.5
ANTHRACENE	14/14	0.4-34	8.0	8.0	BC-1017
BENZO(A)ANTHRACENE	13/14	0.1-81.9	21.0	19.8	BC-1017
BENZO(A)PYRENE	11/14	0.6-105	22.7	18.4	BC-1017
BENZO(B)FLUORANTHENE	13/14	0.3-182	37.9	35.7	BC-1017
BENZO(E)PYRENE	13/14	0.2-88.6	16.7	15.8	BC-1017
BENZO(G,H,I)PERYLENE	11/14	0.6-143	25.4	20.5	BC-1017
BIPHENYL	3/14	4.85-16.9	9.7	6.2	BC-1006
CHRYSENE	12/14	0.6-63.7	14.4	15.4	CC-1004.5
DIBENZO(A,H)ANTHRACENE	5/14	0-29.2	11.6	7.2	BC-1017
FLUORANTHENE	12/14	2.8-140	43.4	37.5	BC-1017
FLUORENE	6/14	1.8-22.2	7.7	4.5	BC-1006
INDENO(1,2,3-CD)PYRENE	10/14	0.5-107	22.2	16.9	BC-1017
NAPHTHALENE	2/14	33.7-154	93.9	17.3	BC-1006
PERYLENE	11/14	0.2-37.5	7.1	6.2	BC-1017
PHENANTHRENE	3/14	42.7-82	56.3	14.3	BC-1017
PYRENE	12/14	2.9-126.5	40.1	34.8	CC-1004.5
SUM OF HIGH MOLECULAR WEIGHT PAHs	14/14	0.9-553	130.9	130.9	BC-1017
SUM OF LOW MOLECULAR WEIGHT PAHs	14/14	2.9-296.5	70.7	70.7	BC-1006
SUM OF TOTAL PAHs	14/14	4.4-1320	312.1	312.1	BC-1017
PESTICIDES/PCBs (ng/L)					
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	2/14	3.5-4.1	3.8	1.1	BC-1017
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	2/14	1.1-9.3	5.2	1.2	BC-1017
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	2/14	1-54	28	4	BC-1017
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	2/14	0.575-11	5.79	1.47	BC-1017
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2/14	0.45-4	2.23	0.58	BC-1017
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3/14	1.75-50	19.25	4.48	BC-1017
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	1/14	14	14	2	BC-1017
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	3/14	1.1-120	41.5	9.2	BC-1017
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	2/14	2.35-106	54.18	8.04	BC-1017
2,2',3,4,5'-PENTACHLOROBIPHENYL	11/14	0.1-4.9	0.6	0.6	BC-1017
2,2',3,5-TETRACHLOROBIPHENYL	1/14	0.7	0.7	0.8	CC-1004.5
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	2/14	2.55-101	51.78	7.91	BC-1017
2,2',4,5,5'-PENTACHLOROBIPHENYL	1/14	30	30	3	BC-1017
2,2',4,6-TETRACHLOROBIPHENYL	1/14	0.6	0.6	1.4	CC-1004.5
2,3',4,4',5-PENTACHLOROBIPHENYL	1/14	6.7	6.7	0.9	BC-1017
2,3,3',4,4'-PENTACHLOROBIPHENYL	2/14	0.55-3.9	2.23	0.75	BC-1017
2,4'-DDE	1/14	0.7	0.7	0.8	CC-1004.5
2,4'-DDT	3/14	1.3-39	15.9	4.5	SP-1001
2,4,5-TRICHLOROBIPHENYL	4/14	0.1-0.625	0.3	0.7	BC-1006
4,4'-DDD	3/14	3.4-159.5	77.3	17.4	CC-1004.5
4,4'-DDE	4/14	2-9.65	4.86	2.16	CC-1004.5
4,4'-DDT	3/14	5-55	32	8	SP-1001
ALPHA-CHLORDANE	3/14	0.9-4.8	2.2	1.2	SP-1001
HEPTACHLOR	7/14	0.1-0.6	0.3	0.4	SP-1001
HEPTACHLOR EPOXIDE	6/14	0.1-0.2	0.1	0.9	SP-1001, SP-1002
MIREX	2/14	0.25-8	4.13	1.42	BC-1017
SUM OF PCBS	14/14	4-1040	85	85	BC-1017
SUM OF THE 24 CHLOROBIPHENYLS	14/14	2-522	43	43	BC-1017
TRANS-NONACHLOR	5/14	0.1-1.2	0.4	0.6	SP-1001
METALS, TOTAL (μg/L)					
ALUMINUM	8/14	43.3-343	169.3	98.4	BC-1017

(1) For non-detected results, a value of one-half the detection limit is used to calculate averages.

PORTSMOUTH NAVAL SHIPYARD
SUMMARY OF SEEP RESULTS

ARSENIC	4/14	4.25-5.4	4.98	3.21	CC-1004.4
CADMIUM	7/14	0.2-0.3	0.2	0.2	BC-1020, CC-1004.3
CHROMIUM	9/14	1.2-7.7	3.2	2.2	BC-1005
COPPER	10/14	3.4-42.5	14.4	10.7	BC-1017
IRON	14/14	24.5-3130	664.7	664.7	BC-1012
LEAD	9/14	2.675-9.3	5.4	4.0	BC-1017
MANGANESE	14/14	1.8-169	30.6	30.6	BC-1006
NICKEL	6/14	9.4-26.55	18.43	10.18	CC-1004.5
ZINC	2/14	201.3-258.8	230.1	59.8	CC-1004.3
METALS, FILTERED (µg/L)					
ALUMINUM	10/14	2.2-105.9	28.0	20.4	BC-1017
ARSENIC	2/14	3.75-6.6	5.2	2.9	SP-1003
CADMIUM	9/14	0.2-0.3	0.2	0.2	BC-1020
CHROMIUM	1/14	3	3	1	BC-1005
COPPER	8/14	1.875-15.3	8.3	5.3	BC-1020
IRON	13/14	9-3610	431	401	BC-1012
LEAD	4/14	2.225-4.5	3.1	1.9	BC-1020
MANGANESE	14/14	2.1-162	27.4	27.4	BC-1006
NICKEL	6/14	12-33	20	11	CC-1004.5
ZINC	14/14	15.5-155.5	81.0	81.0	BC-1020
MISCELOLANEOUS PARAMETERS (mg/L)					
BROMIDE	12/13	19-58	42	38	BC-1020
CARBONATE ALKALINITY	13/13	81-175	112	112	BC-1006
CHLORIDE	13/13	580-16000	11537	11537	BC-1020
NITRATE AS NITROGEN	13/13	0.1-2.3	0.5	0.5	SP-1001
PH	13/13	6.8-7.7	7.4	7.4	BC-1017
SOLIDS - FILTERABLE RESIDUE (TDS)	14/14	660-34000	21169	21169	BC-1016
SOLIDS - NON FILTERABLE RESIDUE (TSS)	13/14	19-880	120	112	BC-1012
SULFATE	13/13	22-3400	1643	1643	BC-1020
TOTAL ORGANIC CARBON	14/14	1.2-3.75	2.1	2.1	BC-1006

(1) For non-detected results, a value of one-half the detection limit is used to calculate averages.

PORTSMOUTH NAVAL SHIPYARDS
SUMMARY OF SEDIMENT RESULTS

Parameter	Frequency of Detection	Range (Min-Max)	Average of Positive Detections	Average of All Values (1)	Location of Maximum Positive Detection
SEMIVOLATILES (µg/kg)					
1-METHYLNAPHTHALENE	13/13	2.9-32.4	17.7577	17.7577	BC-1018
1-METHYLPHENANTHRENE	13/13	10.2-203	69.9538	69.9538	BC-1018
2,3,5-TRIMETHYLNAPHTHALENE	13/13	0.9-12.8	5.4615	5.4615	BC-1012
2,6-DIMETHYLNAPHTHALENE	13/13	3.1-25.7	16.1462	16.1462	BC-1018
2-METHYLNAPHTHALENE	13/13	4.3-32.5	18.6269	18.6269	BC-1012
ACENAPHTHENE	13/13	3.6-132.3	34.1385	34.1385	BC-1012
ACENAPHTHYLENE	13/13	6.1-93	39.9308	39.9308	BC-1018
ANTHRACENE	13/13	28.7-811	206.6385	206.6385	BC-1018
BENZO(A)ANTHRACENE	13/13	72.5-1710	585.6154	585.6154	BC-1018
BENZO(A)PYRENE	13/13	50.7-918	391.7615	391.7615	BC-1018
BENZO(B)FLUORANTHENE	13/13	115-2240	855.1923	855.1923	BC-1018
BENZO(E)PYRENE	13/13	42.6-825	318.3923	318.3923	BC-1018
BENZO(G,H,I)PERYLENE	13/13	34.7-567	235	235	BC-1018
BIPHENYL	1/13	27.7-27.7	27.7	5.4288	BC-1005
CHRYSENE	13/13	54.9-978	432.6231	432.6231	BC-1018
DIBENZO(A,H)ANTHRACENE	13/13	10.6-155	66.5769	66.5769	BC-1018
FLUORANTHENE	13/13	179-5660	1389.4231	1389.4231	BC-1018
FLUORENE	13/13	6-262	47.5462	47.5462	BC-1018
INDENO(1,2,3-CD)PYRENE	13/13	32.8-2364	383.7462	383.7462	BC-1016
NAPHTHALENE	13/13	5.3-94.3	30.3808	30.3808	BC-1020
PERYLENE	13/13	14.5-232	100.3231	100.3231	BC-1018
PHENANTHRENE	13/13	94.4-1500	482.0846	482.0846	BC-1012
PYRENE	13/13	141-4220	1148.1538	1148.1538	BC-1018
SUM OF HIGH MOLECULAR WEIGHT PAHs	13/13	509-13600	4011.9231	4011.9231	BC-1018
SUM OF LOW MOLECULAR WEIGHT PAHs	13/13	8-2500	710.9615	710.9615	BC-1018
SUM OF TOTAL PAHs	13/13	920-20800	6724.2308	6724.2308	BC-1018
PESTICIDES/PCBs (µg/kg)					
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	10/13	0.7-14	3.1475	2.4788	BC-1016
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	11/13	0.6-24	5.8795	5.0135	BC-1016
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	6/13	0.5-7.6	3.55	1.8	BC-1018
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	13/13	0.2-36	6.4269	6.4269	BC-1017
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	5/13	1.85-11	5.61	2.4327	BC-1017
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	5/13	1.1-3.4	2.4	1.0846	BC-1017
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	11/13	0.6-37	9.8182	8.3538	BC-1017
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	9/13	0.6-11	3.2333	2.3308	BC-1017
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	10/13	2.4-83	21.51	16.7077	BC-1017
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	10/13	0.9-77	19.56	15.1269	BC-1017
2,2',3,4,5'-PENTACHLOROBIPHENYL	8/13	1.2-5.4	2.7625	1.8154	BC-1016
2,2',3,5-TETRACHLOROBIPHENYL	13/13	0.2-1.6	0.6269	0.6269	BC-1018
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	9/13	2.5-74	21.45	15.0442	BC-1017
2,2',4,5,5'-PENTACHLOROBIPHENYL	4/13	4.8-23	14.225	4.9692	BC-1018
2,2',4,6-TETRACHLOROBIPHENYL	5/13	0.6-4.7	1.49	0.7269	BC-1016
2,2',5,5'-TETRACHLOROBIPHENYL	4/13	1.95-10	4.5625	1.7885	BC-1016
2,3',4,4',5-PENTACHLOROBIPHENYL	10/13	1.2-9.7	3.7	2.9269	BC-1018
2,3',4,4'-TETRACHLOROBIPHENYL	5/13	0.4-19	5.82	2.3923	BC-1018
2,3,3',4,4'-PENTACHLOROBIPHENYL	4/13	0.8-1.75	1.3625	0.6269	CC-1004.5
2,4'-DDE	4/13	0.2-2	0.825	0.5308	BC-1018
2,4'-DDT	11/13	0.8-20	6.05	5.1962	SP-1001
3,3',4,4',5-PENTACHLOROBIPHENYL	3/13	0.1-0.225	0.175	0.2327	BC-1006
4,4'-DDD	13/13	2.6-1060	128.7346	128.7346	BC-1018
4,4'-DDE	13/13	2.8-22	8.8423	8.8423	BC-1018
4,4'-DDE	13/13	2.8-22	8.8423	8.8423	CC-1004.5
4,4'-DDT	10/13	3.725-265	47.7725	36.9481	SP-1001
ALPHA-CHLORDANE	12/13	0.1-24	2.8708	2.6808	SP-1001
HEPTACHLOR	10/13	0.1-4.5	0.9325	0.775	BC-1017
HEPTACHLOR EPOXIDE	1/13	0.5-0.5	0.5	0.2692	SP-1001
HEXACHLOROBENZENE	2/13	0.7-1.3	1	0.3577	BC-1016
MIREX	12/13	0.1-8	1.6875	1.5808	BC-1017
SUM OF PCBS	13/13	19-780	191.4615	191.4615	BC-1017
SUM OF THE 24 CHLOROBIPHENYLS	13/13	10-390	95.7308	95.7308	BC-1017
TRANS-NONACHLOR	13/13	0.1-7	1.0462	1.0462	SP-1001

(1) For non-detected results, a value of one-half

PORTSMOUTH NAVAL SHIPYARDS
SUMMARY OF SEDIMENT RESULTS

Parameter	Frequency of Detection	Range (Min-Max)	Average of Positive Detections	Average of All Values (1)	Location of Maximum Positive Detection
METALS (mg/kg)					
ALUMINUM	13/13	3894.6-22143.4	13621.0846	13621.0846	CC-1004.3
ARSENIC	13/13	3.8-11.3	8.5538	8.5538	BC-1016
CADMIUM	13/13	0.09-0.99	0.47	0.47	BC-1018
CHROMIUM	13/13	32.3-184.1	75.2231	75.2231	BC-1017
COPPER	12/13	9.3-528.7	172.2	159.0	BC-1020
IRON	13/13	9763-41746.4	23809.3269	23809.3269	CC-1004.3
LEAD	13/13	14.8-855	154.1	154.1	BC-1005
MANGANESE	13/13	205-505.8	347.2308	347.2308	SP-1001
MERCURY	3/13	0.589-1.203	0.8667	0.2673	BC-1005
NICKEL	5/13	45.45-86.3	69.59	29.22	BC-1016
SILVER	5/5	0.15-0.36	0.236	0.236.	BC-1016
ZINC	2/13	316.39-777	546.69	109.31	BC-1020
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)					
CADMIUM	11/11	0.05-0.40	0.26	0.26	BC-1012
COPPER	4/11	34.5-272.1	157.4	58.1	BC-1016
LEAD	9/11	21.3-702	141.1	115.8	BC-1015
ZINC	1/11	374.5	374.5	48.0	BC-1020

(1) For non-detected results, a value of one-half

ANALYTICAL DATA TABLES

Glossary of Data Validation and Laboratory Qualifiers:

U - Not detected; or value reported is a raised detected limit as a result of blank contamination.

UJ - Value is an estimated nondetect as a result of various technical noncompliances.

J - Value is an estimated positive result due to various technical noncompliances, or value was reported at a concentration below the DL.

R - Rejected

B - Positive result < CRDL but > IDL.

E - ICP inorganic matrix interferences.

* - Laboratory duplicate imprecision for inorganics.

N - Matrix spike noncompliance.

NOTES:

(1) As noted on the analytical tables, samples having an asterisk after the "Round" are duplicates. The analytical data for these samples is an average of the two samples, however both the data from the original sample and its' duplicate are shown on the tag maps (Plates 1 through 3).

(2) Positive results shown on the sediment sample analytical tables outlined in bold are in excess of the National Oceanic and Atmospheric Administration (NOAA) Effects Range Median (ERM) and/or Effects Range Low (ERL). Positive results shown on the seep sample analytical tables outlined in bold are in excess of the Off-Shore Modeling Criteria as referenced below:

1. Maine Water Quality Criteria, Protection of Aquatic Life, chronic, salt, 1995.
2. Maine Water Quality Criteria, Protection of Aquatic Life, acute salt, 1995.
3. EPA Region III Biological Technical Assistance Group (BTAG) Screening Level, Protection of Aquatic Life, marine, 1995.
4. Maine Water Quality Criteria, Protection of Aquatic Life, chronic, fresh, 1995.
5. EPA Region III Biological Technical Assistance Group (BTAG) Screening Level, Protection of Aquatic Life, fresh, 1995.
6. EPA Region III Risk Based Screening Levels for tap water, 1996.

SEEP SAMPLE DATA TABLES

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/12/96	04/10/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	15.9 U			40.9	39.9				
1-METHYLPHENANTHRENE	31.1	1.4 J			7.1 U	2.15 J				
2,3,5-TRIMETHYLNAPHTHALENE		5.7 U				3.45 J				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				9.9 U					
2,6-DIMETHYLNAPHTHALENE	6.4 U	5.7 U			4.2 J	5.55 J				
2-METHYLNAPHTHALENE	29.4 U	8.7 U			12.9 J	8.7 U			300.00000	3
ACENAPHTHENE	0.4 J	8.1 U			57.8	96			710.00000	1
ACENAPHTHYLENE	0.8 J	8.3 U			4	3.025 J			300.00000	3
ANTHRACENE	5.7	1.3 J			22.4	5.25			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	2 J			24.1 U	1.95 J			8.13000	3
BENZO(A)PYRENE	7.8	1.1 J			7.1 U	5.7 U			0.21000	3
BENZO(B)FLUORANTHENE		2.7 J				0.4 J			300.00000	
BENZO(BJK)FLUORANTHENE	10.8 J				13.6 U					
BENZO(E)PYRENE	4.7	1.1 J			4.3 U	2.225				
BENZO(G,H,I)PERYLENE	3.3 J	1.1 J			8.2 U	4.6 U			300.00000	3
BIPHENYL	3.1 U	10.6 U			14.3 U	16.9				
CHRYSENE	7.1 J	2 J			12.3 U	2.05 J			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	9.5 U			23 U	9.5 U			300.00000	3
FLUORANTHENE	20.5	3.7 J			7.9 J	12.3			40.00000	2
FLUORENE	0.8 J	4.2 U			14.8	22.2			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	3.3 J	0.8 J			18.4 U	7.4 U			300.00000	3
MIREX	1.2 U	2.1 U			1.2 U	2.1 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/12/96	04/10/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	6.8 U	6,6 U			209	154			2350.00000	2
PERYLENE	2.2 J	0.6 J			3.3 U	6.1 U				
PHENANTHRENE	25.6 U	2.9 U			11.9 U	10.2 U			4.60000	1
PYRENE	20.8	3.4 J			11.9	15.85			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	56.2	12.2			19.7	32.15				
SUM OF LOW MOLECULAR WEIGHT PAHs	7.7	6.5			321	296.5				
SUM OF TOTAL PAHs	119	26.4			386	396.5				
TRANS-NONACHLOR	3 U	1.7 U			3 U	1.7 U				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.2 J	1.1 U			3.6 U	1.1 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.6 J	1.4 U			2.9 U	1.4 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	3 U	1.1 U			3 U	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.3 J	1.2 U			2.7 U	1.2 U				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.3 J	1.1 U			4.2 U	1.1 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	0.6 U			2.3 U	0.6 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.1 U	0.9 U			3.1 U	0.9 U				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	3 U	1.4 U			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	1.8 U	0.9 U			1.8 U	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	2.3 U	0.7 U			0.7 J	0.7 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	0.1 J			3.2 U	0.1 J				
2,2',3,5-TETRACHLOROBIPHENYL	5.4 U	1.6 U			5.4 U	1.6 U				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	0.7 J	1.2 U			2.3 U	1.2 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.1 U	1.7 U			5.1 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/12/96	04/10/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.7 U	2.9 U			1.7 U	2.9 U				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1 U	27 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	2.1 U	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	2.1 U	1 U			2.1 U	1 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.2 U	1 U			2.2 U	1 U				
2,4'-DDE	3.2 U	1.8 U			3.2 U	1.8 U				
2,4'-DDT	3 U	2.9 U			3 U	2.9 U				
2,4'-DICHLOROBIPHENYL	3.7 U	2.35 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	2.6 U	1.5 U			2.6 U	1.5 U				
2,4,5-TRICHLOROBIPHENYL	0.1 J	2.3 U			2.5 U	0.625 J				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.6 U	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	2.4 U			2.9	2.4 U			0.68000	3
4,4'-DDE	2.3 U	2.4 U			2.3 U	2.4 U			14.00000	3
4,4'-DDT	3 U	3.7 U			1.7 J	3.7 U			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	0.2 J	1.9 U			0.2 J	1.9 U			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	3 U	1.2 U			3 U	1.2 U			0.00360	1
HEPTACHLOR EPOXIDE	3 U	0.1 J			0.3 J	2.9 U			0.00360	1
SUM OF PCBS	4.4	6			1.4	9.5				
SUM OF THE 24 CHLOROBIPHENYLS	2.2	3			0.7	4.5				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/12/96	04/10/97				
METALS (µg/L)										
ALUMINUM	10 J	12 U			19.2 J	50.5 J			87.00000	4
ARSENIC	5 UJ	5 UJ			8.2 J	5.05			36.00000	1
CADMIUM	0.2 UJ	0.2 J			0.2 UJ	0.2 U			9.30000	1
CHROMIUM	0.8 U	7.7			0.8 U	0.8 U			50.00000	1
COPPER	18.7	13.8 J			2.5 U	2.5 U			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	58.4 J	92.5 J			104 J	326 J			1000.00000	4
LEAD	2.9 UJ	7.8 J			2.9 UJ	2.675 J			8.50000	1
MANGANESE	18.9	10.5			142	169			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1
NICKEL	39 J	23.4 J			9.3 J	8 U			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 U			0.92000	1
ZINC	86 J	76.3 U			3 J	42.95 U			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	3 UJ	3 U			3.4 J	3.75			87.00000	4
ARSENIC, FILTERED	6.1 J	5 U			5 U	3.75			36.00000	1
CADMIUM, FILTERED	0.2 J	0.2			0.2 UJ	0.2 U			9.30000	1
CHROMIUM, FILTERED	0.8 U	3			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	17.7	11.6			2.5 U	1.875			2.90000	1
IRON, FILTERED	5	30			58.9	225.25			1000.00000	4
LEAD, FILTERED	9.2 J	2.9 U			2.9 UJ	2.775			8.50000	1
MANGANESE, FILTERED	20.2	9.2			144	162			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/12/96	04/10/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	42.3 J	24.4			8 UR	8 U			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	196 J	112.5			12.2 J	27.25			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		42				19				
CARBONATE ALKALINITY		140				175				
CHLORIDE		13000				5200				
NITRATE AS NITROGEN		0.26				0.1				
PH		7.5				7.3				
SOLIDS - FILTERABLE RESIDUE (TDS)		20000				10700				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		120				80				
SULFATE		1700				740				
TOTAL ORGANIC CARBON		1.9				3.75				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/16/96	04/10/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	15.9 U			14.1 U	15.9 U				
1-METHYLPHENANTHRENE	2 J	0.7 J			7.1 U	0.1 J				
2,3,5-TRIMETHYLNAPHTHALENE		5.7 U				5.7 U				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				9.9 U					
2,6-DIMETHYLNAPHTHALENE	6.4 U	5.7 U			6.4 U	5.7 U				
2-METHYLNAPHTHALENE	29.4 U	8.7 U			1.1 J	8.7 U			300.00000	3
ACENAPHTHENE	1.4 J	8.1 U			0.7 J	8.1 U			710.00000	1
ACENAPHTHYLENE	1.6 J	8.3 U			0.5 J	8.3 U			300.00000	3
ANTHRACENE	6.5	0.8 J			2.9	0.7 J			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	1.6 J			24.1 U	0.1 J			8.13000	3
BENZO(A)PYRENE	5.2 J	0.6 J			0.7 J	5.7 U			0.21000	3
BENZO(B)FLUORANTHENE		1.8 J				0.3 J			300.00000	
BENZO(BJK)FLUORANTHENE	11.8 J				13.6 U					
BENZO(E)PYRENE	5.2	0.7 J			4.3 U	0.2 J				
BENZO(G,H,I)PERYLENE	4.6 J	0.6 J			0.7 J	4.6 U			300.00000	3
BIPHENYL	3.1 U	10.6 U			3.1 U	10.6 U				
CHRYSENE	7.8 J	1.3 J			1.1 J	0.6 J			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	0 J			23 U	9.5 U			300.00000	3
FLUORANTHENE	21.2	2.8 J			2.2 J	4.4 U			40.00000	2
FLUORENE	0.8 J	4.2 U			0.6 J	4.2 U			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	0.3 J	0.5 J			1 J	7.4 U			300.00000	3
MIREX	1.2 U	2.1 U			1.2 U	2.1 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/16/96	04/10/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	6.8 U	6.6 U			6.8 U	6.6 U			2350.00000	2
PERYLENE	1.1 J	0.2			3.3 U	6.1 U				
PHENANTHRENE	11.8 U	3.2 U			10.3 U	2.8 U			4.60000	1
PYRENE	16.5	3.7 J			2 J	5.4 U			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	50.7	10			6	1.9				
SUM OF LOW MOLECULAR WEIGHT PAHs	10.3	6.2			5.8	3.8				
SUM OF TOTAL PAHs	108	20.7			13.5	7.1				
TRANS-NONACHLOR	3 U	1.7 U			3 U	1.7 U				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.2 J	1.1 U			0.2 J	1.1 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.5 J	1.4 U			2.9 U	1.4 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	3 U	1.1 U			3 U	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	2.7 U	1.2 U			2.7 U	1.2 U				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.1 J	1.1 U			4.2 U	6 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	0.6 U			2.3 U	0.6 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.1 U	0.9 U			3.1 U	6 J				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	3 U	1.4 U			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	1.8 U	0.9 U			1.8 U	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	2.3 U	0.7 U			2.3 U	0.7 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	1.2 U			3.2 U	0.1 J				
2,2',3,5-TETRACHLOROBIPHENYL	5.4 U	1.6 U			5.4 U	1.6 U				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	2.3 U	1.2 U			2.3 U	1.2 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.1 U	1.7 U			5.1 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/16/96	04/10/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.7 U	2.9 U			1.7 U	2.9 U				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1 U	2.7 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	2.1 U	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	2.1 U	1 U			2.1 U	1 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.2 U	1 U			2.2 J	1 U				
2,4'-DDE	3.2 U	1.8 U			3.2 U	1.8 U				
2,4'-DDT	3 U	2.9 U			3 U	2.9 U				
2,4'-DICHLOROBIPHENYL	3.7 U	2.4 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	2.6 U	1.5 U			2.6 U	1.5 U				
2,4,5-TRICHLOROBIPHENYL	0.1 J	2.3 U			2.5 U	2.3 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.6 U	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	2.4 U			3 U	2.4 U			0.68000	3
4,4'-DDE	2.3 U	2.4 U			2.3 U	2.4 U			14.00000	3
4,4'-DDT	3 U	3.7 U			3 U	3.7 U			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	0.2 J	1.9 U			3 U	1.9 U			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	3 U	1.2 U			3 U	0.1 J			0.00360	1
HEPTACHLOR EPOXIDE	3 U	0.1 J			3 U	0.1 J			0.00360	1
SUM OF PCBS	7.1	7			0.4	6				
SUM OF THE 24 CHLOROBIPHENYLS	0.9	3			0.2	3				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/16/96	04/10/97				
METALS (µg/L)										
ALUMINUM	50.3 J	4 U			5 J	90.2 J			87.00000	4
ARSENIC	5 UJ	5 UJ			5 UJ	5 UJ			36.00000	1
CADMIUM	0.2 UJ	0.2 J			0.2 UJ	0.2 J			9.30000	1
CHROMIUM	0.8 U	6.5			0.8 U	1.7			50.00000	1
COPPER	3.7	3.4 J			18.8	13.8 J			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	50.4 J	3130 J			67.5 J	773.8 J			1000.00000	4
LEAD	2.9 UJ	2.9 UJ			2.9 UJ	3.2 J			8.50000	1
MANGANESE	7.8	23.2			4.6	.6			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1
NICKEL	11 J	8 UJ			9.3 J	9.4 J			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 UJ			0.92000	1
ZINC	169 J	91.3 U			129 J	92.5 U			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	8.7 J	19.6			19.1 J	41.8			87.00000	4
ARSENIC, FILTERED	5 U	5 U			5 U	5 U			36.00000	1
CADMIUM, FILTERED	0.8 J	0.2			1 J	0.2 U			9.30000	1
CHROMIUM, FILTERED	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	2.9	3.4			16.4	13.3			2.90000	1
IRON, FILTERED	3 U	3610			3 U	645			1000.00000	4
LEAD, FILTERED	2.9 UJ	2.9 U			2.9 UJ	2.9 U			8.50000	1
MANGANESE, FILTERED	6.9	28.2			6	7.5			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/10/97			12/16/96	04/10/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	10 J	8 U			11.4 J	12			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	40.8 J	151.3			133 J	105			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		54				46				
CARBONATE ALKALINITY		98				95				
CHLORIDE		15000				14000				
NITRATE AS NITROGEN		0.18				0.26				
PH		7.4				7.5				
SOLIDS - FILTERABLE RESIDUE (TDS)		27000				34000				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		880				60				
SULFATE		2300				1900				
TOTAL ORGANIC CARBON		1.3				1.8				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/09/97			12/12/96	04/09/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	8.5 J			14.1 U	15.9 U				
1-METHYLPHENANTHRENE	1.1 J	16.7			7.1 U	4.5 U				
2,3,5-TRIMETHYLNAPHTHALENE		2.9 J				5.7 U				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				9.9 U					
2,6-DIMETHYLNAPHTHALENE	6.4 U	3.6 J			6.4 U	5.7 U				
2-METHYLNAPHTHALENE	29.4 U	9.4			29.4 U	8.7 U			300.00000	3
ACENAPHTHENE	0.5 J	5.5 J			1.6	8.1 U			710.00000	1
ACENAPHTHYLENE	0.8 J	11.6			0.2 J	8.3 U			300.00000	3
ANTHRACENE	2.8	34			1.6 U	1 J			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	81.9 J			24.1 U	2 J			8.13000	3
BENZO(A)PYRENE	3.3 J	105			0.5 J	0.9 J			0.21000	3
BENZO(B)FLUORANTHENE		182				2.5 J			300.00000	
BENZO(BJK)FLUORANTHENE	8.1 J				13.6 U					
BENZO(E)PYRENE	3.4 J	88.6			4.3 U	1.1 J				
BENZO(G,H,I)PERYLENE	3.4 J	143			8.2 U	1 J			300.00000	3
BIPHENYL	3.1 U	10.6 U			3.1 U	10.6 U				
CHRYSENE	4.9 J	74.6 U			1.25 J	1.9 J			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	29.2			23 U	9.5 U			300.00000	3
FLUORANTHENE	7.8 J	140			2.3 J	3.8 J			40.00000	2
FLUORENE	12.3 U	6.1			12.3 U	4.2 U			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	3.2 J	107			18.4 U	0.9 J			300.00000	3
MIREX	1.2 U	8			1.2 U	2.1 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/09/97			12/12/96	04/09/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	6.8 U	22.6 U			6.8 U	6.6 U			2350.00000	2
PERYLENE	1.4 J	37.5			3.3 U	0.3 J				
PHENANTHRENE	10.3 U	82			10.3 U	3 U			4.60000	1
PYRENE	6.6 J	122			2.05 J	2.9 J			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	22.6	553			6.1	11.5				
SUM OF LOW MOLECULAR WEIGHT PAHs	4.1	171			0.3	5.8				
SUM OF TOTAL PAHs	47.3	1320			6.4	23.5				
TRANS-NONACHLOR	3 U	0.2 J			3 U	1.7 U				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.3 J	1.1 U			0.1 J	1.1 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	1.4 J	4.1			2.9 U	1.4 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	2 J	9.3			3 U	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	14.1	54			2.7 U	1.2 U				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	2 J	11			1.1	1.1 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	4			2.3 U	0.6 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	9.5	50			3.1 U	0.9 U				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	2.6 J	14			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	25.4	120			1.8 U	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	26.1	106			2.3 U	0.7 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	4.9			3.2 U	0.1 J				
2,2',3,5-TETRACHLOROBIPHENYL	5.4 U	1.6 U			5.4 U	1.6 U				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	25.3	101			2.3 U	1.2 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	7	30			5.15 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/09/97			12/12/96	04/09/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.7 U	2.9 U			1.7 U	2.9 U				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1 U	2.7 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	2.1 U	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	25.1 J	6.7			2.1 U	1 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2 J	3.9			2.2 U	1 U				
2,4'-DDE	3.2 U	1.8 U			3.2 U	1.8 U				
2,4'-DDT	3 U	2.9 U			3 U	2.9 U				
2,4'-DICHLOROBIPHENYL	3.7 U	2.4 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	2.6 U	1.5 U			2.6 U	3.7 U				
2,4,5-TRICHLOROBIPHENYL	0.1 J	2.3 U			0.675	2.3 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	4.2 J	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	2.4 U			3 U	0.2 U			0.68000	3
4,4'-DDE	2.3 U	2			0.625 J	0.1 U			14.00000	3
4,4'-DDT	3 U	3.7 U			3 U	0.7 U			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	0.1 J	1.9 U			0.1 J	1.9 U			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	3 U	0.2 J			0.85	0.1 J			0.00360	1
HEPTACHLOR EPOXIDE	0.1 J	2.9 U			3 U	2.9 U			0.00360	1
SUM OF PCBS	294	1040			0.4	5				
SUM OF THE 24 CHLOROBIPHENYLS	147	522			0.2	2				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/09/97			12/12/96	04/09/97				
METALS (µg/L)										
ALUMINUM	59.2 J	343 J			66.15 J	9.1 U			87.00000	4
ARSENIC	11.7 J	5.2 J			5 U	5 UJ			36.00000	1
CADMIUM	0.2 UJ	0.2 UJ			0.2 U	0.2 J			9.30000	1
CHROMIUM	0.8 U	4			0.8 U	0.8 U			50.00000	1
COPPER	4.3	42.5 J			5	5.4 J			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	411 J	2175 J			34.2 J	31 J			1000.00000	4
LEAD	2.9 UJ	9.3 J			2.9 U	2.9 UJ			8.50000	1
MANGANESE	26.9	40			2.75	2.6			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 U	0.42 U			0.02500	1
NICKEL	8 UR	8 UJ			41.85 J	21.8 J			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 UJ			0.92000	1
ZINC	95 J	64 U			73.6 J	74.5 U			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	14.5 J	105.9			6.05 J	3 U			87.00000	4
ARSENIC, FILTERED	9.7 J	5 U			5 U	5 U			36.00000	1
CADMIUM, FILTERED	0.2 UJ	0.2			0.3 J	0.2			9.30000	1
CHROMIUM, FILTERED	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	2.5 U	5.5			4.9	4.5			2.90000	1
IRON, FILTERED	38.2	428			2.5	11.5			1000.00000	4
LEAD, FILTERED	2.9 UJ	2.9 U			2.9 U	2.9 U			8.50000	1
MANGANESE, FILTERED	29	17.1			3.05	2.1			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 U	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/09/97			12/12/96	04/09/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	8 UR	8 U			29.1 J	22.2			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	32.8 J	33			64.6 J	86			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		53				46				
CARBONATE ALKALINITY		98				100				
CHLORIDE		14000				14000				
NITRATE AS NITROGEN		0.21				0.36				
PH		7.7				7.4				
SOLIDS - FILTERABLE RESIDUE (TDS)		25000				25000				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		88				44				
SULFATE		1900				1700				
TOTAL ORGANIC CARBON		2.6				1.6				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/09/97			12/13/96	04/08/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	15.9 U			14.1 U	15.9 U				
1-METHYLPHENANTHRENE	7.1 U	4.5 U			4.2 J	3.5 J				
2,3,5-TRIMETHYLNAPHTHALENE		5.7 U				0.2 J				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				0.6 J					
2,6-DIMETHYLNAPHTHALENE	6.4 U	5.7 U			0.8 J	5.7 U				
2-METHYLNAPHTHALENE	29.4 U	8.7 U			29.4 U	8.7 U			300.00000	3
ACENAPHTHENE	6 U	8.1 U			1.6 J	8.1 U			710.00000	1
ACENAPHTHYLENE	0.3 J	8.3 U			2 J	5.8 J			300.00000	3
ANTHRACENE	2.5 U	0.4 J			4.8	13.7			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	7 U			24.1 U	40.6			8.13000	3
BENZO(A)PYRENE	0.2 J	5.7 U			7.9	19.6			0.21000	3
BENZO(B)FLUORANTHENE		13.3 U				50			300.00000	
BENZO(BJK)FLUORANTHENE	13.6 U				18.7					
BENZO(E)PYRENE	4.3 U	8.5 U			7.1	17.1				
BENZO(G,H,I)PERYLENE	8.2 U	4.6 U			6.1 J	14.4			300.00000	3
BIPHENYL	3.1 U	10.6 U			3.1 U	10.6 U				
CHRYSENE	12.3 U	10.7 U			10.4 J	33.6			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	9.5 U			23 U	4.4 J			300.00000	3
FLUORANTHENE	10.5 U	4.4 U			20.6	73.6			40.00000	2
FLUORENE	12.3 U	4.2 U			2 J	1.8 J			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	18.4 U	7.4 U			5.4 J	12.9			300.00000	3
MIREX	1.2 U	2.1 U			0.1 J	2.1 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/09/97			12/13/96	04/08/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	6.8 U	6.6 U			6.8 U	6.6 U			2350.00000	2
PERYLENE	3.3 U	6.1 U			3.1 J	4.6 J				
PHENANTHRENE	10.3 U	2.8 U			15.7 U	16.2 U			4.60000	1
PYRENE	0.7 J	5.4 U			16	72.5			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	0.9	0.9			54.9	244				
SUM OF LOW MOLECULAR WEIGHT PAHs	0.3	2.9			10.4	44.7				
SUM OF TOTAL PAHs	1.2	4.4			111.3	393				
TRANS-NONACHLOR	3 U	1.7 U			3 U	1.7 U				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.1 J	1.1 U			0.2 J	1.4 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.8 J	1.4 U			0.5 J	1.4 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	3 U	1.1			3 U	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	2.7 U	1.2 U			0.1 J	1.2 U				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.1 J	1.1 U			0.1 J	1.1 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	0.6 U			2.3 U	0.6 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.1 U	0.9 U			3.1 U	0.9 U				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	3 U	1.4 U			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	1.8 U	0.9 U			1.8 U	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	2.3 U	0.7 U			2.3 U	0.7 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	0.1 J			3.2 U	1.2 U				
2,2',3,5-TETRACHLOROBIPHENYL	5.4 U	1.6 U			5.4 U	1.6 U				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	2.3 U	1.2 U			2.3 U	1.2 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.1 U	1.7 U			5.1 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/09/97			12/13/96	04/08/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.7 U	2.9 U			1.7 U	2.9 U				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1 U	2.7 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	2.1 U	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	2.1 U	1 U			2.1 U	1 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.2 U	1 U			2.2 U	1 U				
2,4'-DDE	3.2 U	1.8 U			3.2 U	1.8 U				
2,4'-DDT	3 U	2.9 U			3 U	2.9 U				
2,4'-DICHLOROBIPHENYL	3.7 U	2.4 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	2.6 U	1.5 U			2.6 U	1.5 U				
2,4,5-TRICHLOROBIPHENYL	2.5 U	0.1 U			2.5 U	2.3 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.6 U	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	2.4 U			3 U	2.4 U			0.68000	3
4,4'-DDE	2.3 U	2.4 U			2.3 U	2.4 U			14.00000	3
4,4'-DDT	3 U	3.7 U			3 U	3.7 U			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	0.1 J	1.9 U			0.1 J	1.9 U			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	0.2 J	0.3 J			3 U	1.2 U			0.00360	1
HEPTACHLOR EPOXIDE	3 U	0.1 J			3 U	2.9 U			0.00360	1
SUM OF PCBS	2	5			1.8	4				
SUM OF THE 24 CHLOROBIPHENYLS	1	3			0.9	2				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/09/97			12/13/96	04/08/97				
METALS (µg/L)										
ALUMINUM	16.2 J	3 U			315.7 J	202.3 J			87.00000	4
ARSENIC	5 UJ	5 UJ			5 UJ	5 UJ			36.00000	1
CADMIUM	0.2 UJ	0.3 J			0.2 UJ	0.3 J			9.30000	1
CHROMIUM	0.8 U	1.2			0.8 U	2.4			50.00000	1
COPPER	18.9	19.4 J			3.5	4.6 J			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	29 J	121.5 J			732 J	951.3 J			1000.00000	4
LEAD	2.9 UJ	3.9 J			2.9 UJ	7 J			8.50000	1
MANGANESE	9.8	2.4			29.5	23.2			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1
NICKEL	20.8 J	12.7 J			14.4 J	16.7 J			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 UJ			0.92000	1
ZINC	119 J	201.3 J			413 J	258.8 J			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	3.5 J	3 U			17.3 J	2.2			87.00000	4
ARSENIC, FILTERED	5 U	5 U			5 U	5 U			36.00000	1
CADMIUM, FILTERED	0.4 J	0.3			0.5 J	0.2			9.30000	1
CHROMIUM, FILTERED	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	16.3	15.3			2.5 U	2.5 U			2.90000	1
IRON, FILTERED	3 U	9			143.8	453.5			1000.00000	4
LEAD, FILTERED	2.9 UJ	4.5			2.9 UJ	2.9 U			8.50000	1
MANGANESE, FILTERED	10.5	2.6			28.5	19.4			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/12/96	04/09/97			12/13/96	04/08/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	25.8 J	13.8			8 J	16.8			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	115 J	155.5			243 J	125			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		58				38				
CARBONATE ALKALINITY		100				130				
CHLORIDE		16000				13000				
NITRATE AS NITROGEN		0.18				0.24				
PH		7.6				7.6				
SOLIDS - FILTERABLE RESIDUE (TDS)		28000				27000				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		32				38				
SULFATE		3400				1600				
TOTAL ORGANIC CARBON		1.2				1.9				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.4				CC-1004.5				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/08/97			12/16/96	04/09/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	15.9 U			46.7	5.95 J				
1-METHYLPHENANTHRENE	3 J	1.7 J			8.4	7.5				
2,3,5-TRIMETHYLNAPHTHALENE		5.7 U				2.35 J				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				27.2					
2,6-DIMETHYLNAPHTHALENE	6.4 U	5.7 U			31.2	4.55 J				
2-METHYLNAPHTHALENE	29.4 U	8.7 U			4.8 J	7.6 J			300.00000	3
ACENAPHTHENE	6 U	8.1 U			793	110.8			710.00000	1
ACENAPHTHYLENE	2.3 J	8.3 U			13.6	12			300.00000	3
ANTHRACENE	8.7	2.4			59.9	24.95			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	8.2			22.4 J	72.05 J			8.13000	3
BENZO(A)PYRENE	6.1 J	4.4 J			33.5	51.6			0.21000	3
BENZO(B)FLUORANTHENE		9.8 J				115.4			300.00000	
BENZO(BJK)FLUORANTHENE	15.1				79.4					
BENZO(E)PYRENE	5.7	3.6 J			34.6	49.8				
BENZO(G,H,I)PERYLENE	5 J	3.1 J			24.7	54.35			300.00000	3
BIPHENYL	3.1 U	10.6 U			26.2	4.85 J				
CHRYSENE	7.5 J	5.6 J			45.9	63.7 J			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	9.5 U			5.9 J	12.45			300.00000	3
FLUORANTHENE	8.4 J	28.8			154	133			40.00000	2
FLUORENE	12.3 U	4.2 U			142	5.8			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	4.6 J	2.5 J			23.5	45.45			300.00000	3
MIREX	1.2 U	2.1 U			1.2 U	0.25 J				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.4				CC-1004.5				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/08/97			12/16/96	04/09/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	6.8 U	6.6 U			15	11.55 U			2350.00000	2
PERYLENE	2.5 J	1.1 J			12.1	15.3				
PHENANTHRENE	10.3 U	5.1 U			59.4	42.7			4.60000	1
PYRENE	7.6 J	21.3			101	126.5			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	29.6	68.3			362	459.5				
SUM OF LOW MOLECULAR WEIGHT PAHs	11	10.7			1090	215.5				
SUM OF TOTAL PAHs	76.5	101			1760	978.5				
TRANS-NONACHLOR	3 U	0.1 U			3 U	0.35				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.1 J	1.1 U			0.6	1.1 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.8 J	1.4 U			2.5	3.5				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	3 U	1.1 U			0.2 J	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.2 J	1.2 U			1 J	1 J				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.1 J	1.1 U			0.5 J	0.575 J				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	0.6 U			2.3 U	0.45 J				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.1 U	0.9 U			3.1 U	1.75				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	0.6 J	1.4 U			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	1.8 U	0.9 U			2.8	3.25				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	0.6 J	0.7 U			2.2 J	2.35				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	0.1 J			3.2 U	0.5 J				
2,2',3,5-TETRACHLOROBIPHENYL	5.4 U	1.6 U			5.4 U	0.7 J				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	0.8 J	1.2 U			2.6	2.55				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.1 U	1.7 U			5.1 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.4				CC-1004.5				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/08/97			12/16/96	04/09/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.7 U	2.9 U			1.7 U	0.6 J				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1 U	2.7 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	2.1 U	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	2.1 U	1 U			0.8 J	1.05 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.2 U	1 U			2.2 U	0.55 J				
2,4'-DDE	3.2 U	1.8 U			0.7 J	0.7 J				
2,4'-DDT	2.7 J	2.9 U			4.1	7.35				
2,4'-DICHLOROBIPHENYL	3.7 U	2.4 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	2.6 U	1.5 U			2.6 U	1.5 U				
2,4,5-TRICHLOROBIPHENYL	2.5 U	2.3 U			2.5 U	0.2 J				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.6 U	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	2.4 U			408	159.5			0.68000	3
4,4'-DDE	2.3 U	2.4 U			11.1	9.65			14.00000	3
4,4'-DDT	3 U	3.7 U			17	36			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	0.1 J	1.9 U			1 J	0.95 J			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	0.6 J	1.2 U			0.1 J	0.3 J			0.00360	1
HEPTACHLOR EPOXIDE	3 U	2.9 U			3 U	2.9 U			0.00360	1
SUM OF PCBS	3.2	10			26	51				
SUM OF THE 24 CHLOROBIPHENYLS	3.2	5			13	25.5				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.4				CC-1004.5				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/08/97			12/16/96	04/09/97				
METALS (µg/L)										
ALUMINUM	107 J	203.6 J			131.3 J	272.5 J			87.00000	4
ARSENIC	5 UJ	5.4 J			6.2 J	4.25 J			36.00000	1
CADMIUM	0.2 UJ	0.2 UJ			0.2 UJ	0.25 J			9.30000	1
CHROMIUM	0.8 U	1.4			0.8 U	2.7			50.00000	1
COPPER	4.2	6.2 J			14.3	30.8 J			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	177 J	517.5 J			292 J	586.9 J			1000.00000	4
LEAD	2.9 UJ	4 J			2.9 UJ	7.35 J			8.50000	1
MANGANESE	13.7	21.3			49.5	26.05			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1
NICKEL	15 J	8 UJ			16.2 J	26.55 J			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 U			0.92000	1
ZINC	12.2 J	55 U			22.4 J	55 U			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	5.1 J	11.4			25 J	39.35			87.00000	4
ARSENIC, FILTERED	5 U	5 U			5 U	5 U			36.00000	1
CADMIUM, FILTERED	0.2 UJ	0.2 U			0.2 UJ	0.2 U			9.30000	1
CHROMIUM, FILTERED	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	2.5 U	2.5 U			4.7	11.15			2.90000	1
IRON, FILTERED	3.9	15.5			52.5	31.75			1000.00000	4
LEAD, FILTERED	2.9 UJ	2.9 U			2.9 UJ	2.225			8.50000	1
MANGANESE, FILTERED	3.1	4.5			51.5	17.2			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.4				CC-1004.5				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/08/97			12/16/96	04/09/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	10.3 J	8 U			6.8 J	33			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	12.3 J	52.5			6.8 J	33.75			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		41								
CARBONATE ALKALINITY		110								
CHLORIDE		13000								
NITRATE AS NITROGEN		0.26								
PH		7.4								
SOLIDS - FILTERABLE RESIDUE (TDS)		22000				15000				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		38				54				
SULFATE		1700								
TOTAL ORGANIC CARBON		2				3.6				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1011				SP-1001				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/09/97			12/13/96	04/08/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	7 J			14.1 U	15.9 U				
1-METHYLPHENANTHRENE	1.1 J	9.7			7.1 U	0.5				
2,3,5-TRIMETHYLNAPHTHALENE		1.8 J				8.7 U				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				9.9 U					
2,6-DIMETHYLNAPHTHALENE	6.4 U	4.1 J			6.4 U	8.1 U				
2-METHYLNAPHTHALENE	6.2 J	9			29.4 U	8.3 U			300.00000	3
ACENAPHTHENE	1.5 J	8.1 U			6 U	1 J			710.00000	1
ACENAPHTHYLENE	2.7 J	11.5			3.4 U	0.2 J			300.00000	3
ANTHRACENE	2.5 U	23.2			1.6 U	2.6			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	54.7 J			24.1 U	4.9 J			8.13000	3
BENZO(A)PYRENE	6.1 J	60.4			7.8	3.5 J			0.21000	3
BENZO(B)FLUORANTHENE		115				5.9 J			300.00000	
BENZO(BJK)FLUORANTHENE	11.4 J				22.2					
BENZO(E)PYRENE	6.1	47.6			14.1	2.2 J				
BENZO(G,H,I)PERYLENE	7.3 J	57.2			15.5	2.5 J			300.00000	3
BIPHENYL	3.1 U	10.6 U			3.1 U	10.6 U				
CHRYSENE	5 J	52.5 J			6.5 J	4 J			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	11.9			8.5 J	9.5 U			300.00000	3
FLUORANTHENE	7.6 J	102			4.9 J	9.2			40.00000	2
FLUORENE	0.8 J	3.4 J			12.3 U	4.2 U			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	5.9 J	48.8			14.6 J	2.1 J			300.00000	3
MIREX	1.2 U	0.1 U			1.2 U	2.1 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1011				SP-1001				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/09/97			12/13/96	04/08/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	11.6	14.9 U			6.8 U	6.6 U			2350.00000	2
PERYLENE	2 J	16.9			8.1	0.9 J				
PHENANTHRENE	10.3 U	44.1			10.3 U	6 U			4.60000	1
PYRENE	11	92.9			4.1 J	7.5			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	29.7	374			31.8	29.1				
SUM OF LOW MOLECULAR WEIGHT PAHs	22.8	109			0	13.8				
SUM OF TOTAL PAHs	86.3	794			106.3	57.4				
TRANS-NONACHLOR	3 U	0.2 U			1.5 J	1.2 J				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.2 J	1.1 U			0.2 J	1.1 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.5 J	1.4 U			2.9 U	1.4 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	3 U	1.1 U			3 U	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.2 J	1.2 U			0.1 J	1.2 U				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.2 J	1.1 U			0.1 J	1.1 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	0.6 U			2.3 U	0.6 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.1 U	0.9 U			3.1 U	0.9 U				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	3 U	1.4 U			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	1.8 U	1.1			1.8 U	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	2.3 U	0.7 U			2.3 U	0.7 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	0.2 J			3.2 U	1.2 U				
2,2',3,5-TETRACHLOROBIPHENYL	2.9 J	1.6 U			5.4 U	1.6 U				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	0.7 J	1.2 U			2.3 U	1.2 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.1 U	1.7 U			5.1 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1011				SP-1001				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/09/97			12/13/96	04/08/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.6 J	2.9 U			1.7 U	2.9 U				
2,2',5,5'-TETRACHLOROBIPHENYL	3.3	2.7 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	5.6	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	0.9 J	1 U			2.1 U	1 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.2 U	1 U			2.2 U	1 U				
2,4'-DDE	3.2 U	1.8 U			0.3 J	0.6 U				
2,4'-DDT	3 U	1.3 J			2 J	39				
2,4'-DICHLOROBIPHENYL	3.7 U	2.4 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	6.3	1.5 U			2.6 U	1.5 U				
2,4,5-TRICHLOROBIPHENYL	2.5 U	0.1 J			2.5 U	0.1 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.6 U	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	3.4			19.8	69			0.68000	3
4,4'-DDE	2.3 U	2.4 J			4.6	5.4			14.00000	3
4,4'-DDT	3 U	5			19	55			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	3 U	1.9 U			5.8	4.8			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	0.3 J	1.2 U			0.4 J	0.6 J			0.00360	1
HEPTACHLOR EPOXIDE	3 U	2.9 U			0.1 J	0.2 J			0.00360	1
SUM OF PCBS	53.2	19			0.8	6				
SUM OF THE 24 CHLOROBIPHENYLS	26.6	10			0.4	3				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1011				SP-1001				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/09/97			12/13/96	04/08/97				
METALS (µg/L)										
ALUMINUM	93.3 J	149.1 J			97.6 J	16 U			87.00000	4
ARSENIC	5 UJ	5 UJ			5 UJ	5 UJ			36.00000	1
CADMIUM	0.2 UJ	0.2 UJ			0.2 UJ	0.2 UJ			9.30000	1
CHROMIUM	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER	2.5 U	2.5 U			2.5 U	2.5 U			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	111.2 J	323.5 J			414 J	24.5 J			1000.00000	4
LEAD	2.9 UJ	3 J			2.9 UJ	2.9 UJ			8.50000	1
MANGANESE	6.6	20.5			19	2.5			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1
NICKEL	8 UR	8 UJ			8 UR	8 UJ			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 UJ			0.92000	1
ZINC	13.5 J	30.5 U			21.4 J	57 U			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	18.6 J	8.4			3 UJ	23.9			87.00000	4
ARSENIC, FILTERED	8.3 J	5 U			5 U	5 U			36.00000	1
CADMIUM, FILTERED	1.2 J	0.2			0.2 UJ	0.2			9.30000	1
CHROMIUM, FILTERED	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	2.5 U	2.5 U			19.1	2.5 U			2.90000	1
IRON, FILTERED	15.6	37			24.3	24			1000.00000	4
LEAD, FILTERED	2.9 UJ	2.9 U			2.9 UJ	2.9 U			8.50000	1
MANGANESE, FILTERED	8.3	16.8			15.9	4.6			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 UJ	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1011				SP-1001				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/13/96	04/09/97			12/13/96	04/08/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	8 UR	8 U			8 UR	8 U			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	8.7 J	29			11.4 J	56.5			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		41				24				
CARBONATE ALKALINITY		94				120				
CHLORIDE		12000				8200				
NITRATE AS NITROGEN		0.45				2.3				
PH		6.8				7.2				
SOLIDS - FILTERABLE RESIDUE (TDS)		28000				14000				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		80				19				
SULFATE		1500				1300				
TOTAL ORGANIC CARBON		2.5				1.9				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1002				SP-1003				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/08/97			12/13/96	04/08/97				
SEMIVOLATILES (ng/L)										
1-METHYLNAPHTHALENE	14.1 U	15.9 U			15.2 U	41.6				
1-METHYLPHENANTHRENE	7.1 U	4.5 U			9.45	3.8 J				
2,3,5-TRIMETHYLNAPHTHALENE		5.7 U				13				
2,3,5-TRIMETYLNAPHTHALENE	9.9 U				6.95 J					
2,6-DIMETHYLNAPHTHALENE	6.4 U	5.7 U			11.5	27.5				
2-METHYLNAPHTHALENE	29.4 U	8.7 U			13.15 J	39.1			300.00000	3
ACENAPHTHENE	0.6 J	8.1 U			3 J	7.8 J			710.00000	1
ACENAPHTHYLENE	0.5 J	8.3 U			1.25 J	8.3 U			300.00000	3
ANTHRACENE	1.6 U	0.5 J			2.075	1.7 J			300.00000	3
BENZO(A)ANTHRACENE	24.1 U	1.8 J			24.1 U	1.4 J			8.13000	3
BENZO(A)PYRENE	0.8 J	1.5 J			7.65 J	0.9 J			0.21000	3
BENZO(B)FLUORANTHENE		4 J				2.9 J			300.00000	
BENZO(BJK)FLUORANTHENE	13.6 U				24.1					
BENZO(E)PYRENE	4.3 U	1.6 J			10.4	1.4 J				
BENZO(G,H,I)PERYLENE	8.2 U	1.5 J			7.2 J	1.1 J			300.00000	3
BIPHENYL	3.1 U	10.6 U			3.25 U	7.2 J				
CHRYSENE	1.7 J	2.8 J			15.1	3.2 J			300.00000	3
DIBENZO(A,H)ANTHRACENE	23 U	9.5 U			23 U	9.5 U			300.00000	3
FLUORANTHENE	2.1 J	4.1 J			29.3	7.5			40.00000	2
FLUORENE	12.3 U	4.2 U			3.75 J	6.7			300.00000	3
HEXACHLOROBENZENE	1.8 U	3.8 U			1.8 U	3.8 U				
INDENO(1,2,3-CD)PYRENE	18.4 U	1.4 J			6.3 J	7.4 U			300.00000	3
MIREX	1.2 U	2.1 U			1.2 U	2.1 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1002				SP-1003				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/08/97			12/13/96	04/08/97				
SEMIVOLATILES (ng/L)										
NAPHTHALENE	6.8 U	6.6 U			8.225	33.7			2350.00000	2
PERYLENE	3.3 U	0.3 J			2.65 J	0.2 J				
PHENANTHRENE	10.3 U	2.8 U			16.75 U	8.8 U			4.60000	1
PYRENE	1.9 J	4.1 J			25.2	9			300.00000	3
SUM OF HIGH MOLECULAR WEIGHT PAHs	6.5	14.3			77.25	22				
SUM OF LOW MOLECULAR WEIGHT PAHs	1.1	4.6			24.2	98.5				
SUM OF TOTAL PAHs	7.6	27.7			203.55	219				
TRANS-NONACHLOR	3 U	0.3 J			3 U	0.1 J				
PESTICIDES/PCBs (ng/L)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	3.6 U	1.1 U			1	1.1 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	2.9 U	1.4 U			0.65 J	1.4 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	3 U	1.1 U			3 U	1.1 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.5 J	1.2 U			0.725	1.2 U				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	4.2 U	1.1 U			0.1 J	1.1 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	2.3 U	0.6 U			2.3 U	0.6 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.1 U	0.9 U			3.1 U	0.9 U				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	3 U	1.4 U			3 U	1.4 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	1.8 U	0.9 U			1.8 U	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	2.3 U	0.7 U			2.3 U	0.7 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	3.2 U	0.1 J			3.2 U	0.2 J				
2,2',3,5-TETRACHLOROBIPHENYL	5.4 U	1.6 U			5.4 U	1.6 U				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	2.3 U	1.2 U			0.875	1.2 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.1 U	1.7 U			5.15 U	1.7 U				

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1002				SP-1003				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/08/97			12/13/96	04/08/97				
PESTICIDES/PCBs (ng/L)										
2,2',4,6-TETRACHLOROBIPHENYL	1.7 U	2.9 U			1.7 U	2.9 U				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1 U	2.7 U			3.1 U	2.7 U				
2,2',5-TRICHLOROBIPHENYL	2.1 U	2.9 U			2.1 U	2.9 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	2.1 U	1 U			2.1 U	1 U				
2,3',4,4'-TETRACHLOROBIPHENYL	7.3 U	1.4 U			7.3 U	1.4 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.2 U	1 U			2.2 U	1 U				
2,4'-DDE	0.2 J	1.8 U			3.2 U	1.8 U				
2,4'-DDT	0.9 J	2.9 U			1.05	2.9 U				
2,4'-DICHLOROBIPHENYL	3.7 U	2.4 U			3.7 U	2.4 U				
2,4,4'-TRICHLOROBIPHENYL	2.6 U	1.5 U			2.6 U	1.5 U				
2,4,5-TRICHLOROBIPHENYL	2.5 U	0.1 J			0.675	2.3 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.6 U	1.3 U			3.6 U	1.3 U				
4,4'-DDD	3 U	2.4 U			3 U	2.4 U			0.68000	3
4,4'-DDE	2.3 U	2.4 U			1.8 J	2.4 U			14.00000	3
4,4'-DDT	3 U	3.7 U			3.15	3.7 U			0.00100	1
ALDRIN	3.2 U	3.3 U			3.2 U	3.3 U			1.30000	2
ALPHA-CHLORDANE	0.9 J	0.9 J			0.2 J	1.9 U			0.00400	3
GAMMA-BHC (LINDANE)	3 U	1.8 U			3 U	1.8 U				
HEPTACHLOR	0.2 J	0.2 J			3 U	1.2 U			0.00360	1
HEPTACHLOR EPOXIDE	0.3 J	0.2 J			3 U	2.9 U			0.00360	1
SUM OF PCBS	1	8			7.8	13				
SUM OF THE 24 CHLOROBIPHENYLS	0.5	4			3.9	7				
METALS (µg/L)										

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1002				SP-1003				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/08/97			12/13/96	04/08/97				
METALS (µg/L)										
ALUMINUM	118.5 J	43.3 J			110.2 J	3 U			87.00000	4
ARSENIC	5 UJ	5 UJ			5 U	5 UJ			36.00000	1
CADMIUM	0.2 UJ	0.2 UJ			0.2 U	0.2 UJ			9.30000	1
CHROMIUM	0.8 U	1.3			0.8 U	0.8 U			50.00000	1
COPPER	2.5 U	2.5 U			8.3	4.4 J			2.90000	1
CYANIDE		10 U				10 U			1.00000	
IRON	268.5 J	55.5 J			291.25 J	196.5 J			1000.00000	4
LEAD	2.9 UJ	2.9 UJ			4.15 J	2.9 UJ			8.50000	1
MANGANESE	14.1	1.8			27.05	79 J			10.00000	3
MERCURY	0.42 UJ	0.42 U			0.42 U	0.42 U			0.02500	1
NICKEL	8 UR	8 UJ			9.15 J	8 UJ			8.30000	1
SILVER	0.5 U	0.5 UJ			0.5 U	0.5 UJ			0.92000	1
ZINC	14.4 J	19.5 U			112 J	94.5 U			86.00000	1
DISSOLVED METALS (µg/L)										
ALUMINUM, FILTERED	18.2 J	23.4			27.35 J	3 U			87.00000	4
ARSENIC, FILTERED	5 U	5 U			5.6	6.6			36.00000	1
CADMIUM, FILTERED	0.2 UJ	0.2 U			1.2 J	0.2			9.30000	1
CHROMIUM, FILTERED	0.8 U	0.8 U			0.8 U	0.8 U			50.00000	1
COPPER, FILTERED	2.5 U	2.5 U			4.85	2.5 U			2.90000	1
IRON, FILTERED	3 U	3 U			106.2	86			1000.00000	4
LEAD, FILTERED	2.9 UJ	3			2.9 U	2.9 U			8.50000	1
MANGANESE, FILTERED	2.9	11.8			22.95	81			10.00000	3
MERCURY, FILTERED	0.42 UJ	0.42 U			0.42 U	0.42 U			0.02500	1

SEEP RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1002				SP-1003				MODELING CRITERIA	REF.
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/16/96	04/08/97			12/13/96	04/08/97				
DISSOLVED METALS (µg/L)										
NICKEL, FILTERED	8 UR	8 U			9.2 J	8 U			8.30000	1
SILVER, FILTERED	0.5 U	0.5 U			0.5 U	0.5 U			0.92000	1
ZINC, FILTERED	11.4 J	15.5			74.3 J	151.3			86.00000	1
MISCELLANEOUS PARAMETERS (mg/L)										
BIOLOGICAL OXYGEN DEMAND		6 U				6 U				
BROMIDE		37				2 U				
CARBONATE ALKALINITY		110				81				
CHLORIDE		12000				580				
NITRATE AS NITROGEN		0.88				0.64				
PH		7.5				7				
SOLIDS - FILTERABLE RESIDUE (TDS)		20000				660				
SOLIDS - NON FILTERABLE RESIDUE (TSS)		30				4 U				
SULFATE		1600				22				
TOTAL ORGANIC CARBON		1.5				2.5				

SEDIMENT SAMPLE DATA TABLES

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/10/97			12/24/96	04/10/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE	25.6	15.1			10.9	15.6				
1-METHYLPHENANTHRENE	70.7	67.3			32	66.1				
2,3,5-TRIMETHYLNAPHTHALENE		6				6.1				
2,3,5-TRIMETYLNAPHTHALENE	8				4.5 J					
2,6-DIMETHYLNAPHTHALENE	23.9	18.4			10.3	15.8				
2-METHYLNAPHTHALENE	23.7	19.8			15.5	19.55				
ACENAPHTHENE	23.1	16.4			7.1 J	12.2			16.00	500.00
ACENAPHTHYLENE	77.2	51.2			41.5	40.55			44.00	640.00
ANTHRACENE	216	215			105	111			85.30	1100.00
BENZO(A)ANTHRACENE	510 J	747			279 J	435			261.00	1600.00
BENZO(A)PYRENE	537	674			252	308.5			430.00	1600.00
BENZO(B)FLUORANTHENE		1380				697				
BENZO(BJK)FLUORANTHENE	974				450					
BENZO(E)PYRENE	386	527			179	249				
BENZO(G,H,I)PERYLENE	294	406			134	190				
BIPHENYL	8.1	27.7			6.4 U	6.4 U				
CHRYSENE	503 J	606			306 J	290.5			384.00	2800.00
DIBENZO(A,H)ANTHRACENE	84.4	117			36.6	54.25			63.40	260.00
FLUORANTHENE	744	1650			386	784.5			600.00	5100.00
FLUORENE	20.8	27.5			11.5	19.7			19.00	540.00
HEXACHLOROBENZENE	0.1 J	0.4 U			0.1 J	0.7				
INDENO(1,2,3-CD)PYRENE	307	392			143	176.5				
MIREX	0.1 J	0.3			0.6 U	0.2				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/10/97			12/24/96	04/10/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE	43	31.1			23.3	29.1			160.00	2100.00
PERYLENE	187	188			69.4	76.5				
PHENANTHRENE	350	548			170	300.5			240.00	1500.00
PYRENE	797	1450			425	720			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs	3180	5250			1680	2595			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs	754	909			374	533			552.00	3160.00
SUM OF TOTAL PAHs	6210	9180			3096	4625			4022.00	44792.00
TRANS-NONACHLOR	1.3	0.8			0.2 J	0.2 J				
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	1.4	1.1			0.7	1.775				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	2.8	1.7			0.8	0.975				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	0.5 J	0.6 U			0.2 J	0.5				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	2.5	1.1			0.7	0.65				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	2.1	1.3 U			0.6	0.65 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	0.6	0.5 U			0.2 J	0.5 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	3.5	2.5			1.1	1.05				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	1.3	0.9			0.4 J	0.6 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	11	6.9			3.2	2.4				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	5.2	2.7			1.5	0.9				
2,2',3,4,5'-PENTACHLOROBIPHENYL	1.6	1.2			0.4 J	0.6 U				
2,2',3,5-TETRACHLOROBIPHENYL	0.7	1			0.2 J	0.3 J				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	8.9	4.6			2.8	1.75 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	4.6	2.6 U			1.3	1 U				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/10/97			12/24/96	04/10/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.4 J	0.5 U			0.1 J	0.5 U				
2,2',5,5'-TETRACHLOROBIPHENYL	1.6	1.3 U			0.7 U	0.7 U				
2,2',5-TRICHLOROBIPHENYL	0.4 J	0.7 U			0.1 J	0.7 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	5.4	2.6			1.4	1.25				
2,3',4,4'-TETRACHLOROBIPHENYL	1.5	0.5 U			0.5 J	0.5 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	2.7	0.8			0.5 J	0.6 U				
2,4'-DDE	0.3 J	0.8 U			0.8 U	0.8 U			2.00	20.00
2,4'-DDT	1	8.5			0.2 J	0.95			1.00	7.00
2,4'-DICHLOROBIPHENYL	0.5	0.3 U			0.2 J	0.35 U				
2,4,4'-TRICHLOROBIPHENYL	0.8	0.7 U			0.2 J	0.7 U				
2,4,5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.7 U	0.7 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	2.1	0.5 U			1.1	0.225				
4,4'-DDD	36.9	16			5 J	4.95			2.00	20.00
4,4'-DDE	18.4	14			1.9	3.25			2.20	27.00
4,4'-DDT	7.2	67			2.1	3.725			1.00	7.00
ALDRIN	0.7 U	0.7 U			0.7 UJ	0.7 U				
ALPHA-CHLORDANE	1.9	1.2			0.2 J	0.4 J				
GAMMA-BHC (LINDANE)	0.6 U	0.6 U			0.6 U	0.6 U				
HEPTACHLOR	0.5 U	0.1 J			0.5 UJ	0.275 J				
HEPTACHLOR EPOXIDE	0.5 U	0.5 U			0.5 U	0.5 U				
SUM OF PCBS	125	72			36.4	34			22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	62	36			18.2	17				
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1005				BC-1006				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08 *	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/10/97			12/24/96	04/10/97				
METALS (mg/kg)										
ALUMINUM	33865.6	16453			39199.5	14341.2				
ARSENIC	13.3	9.7			10.7	10.1			8.20	70.00
CADMIUM	0.8	0.74 J			0.32	0.24			1.20	9.60
CHROMIUM	233.3	80.8 J			138.1	56.35 J			81.00	370.00
COPPER	132.5 J	216.3 J			43.3 J	18.8125			34.00	270.00
CYANIDE		1 U				1 U				
IRON	35971.4	21356.8			26984.9	21177.25				
LEAD	238.5	855 J			51.7	48.125			46.70	218.00
MANGANESE	500.3 J	363.8			489.5 J	470.95				
MERCURY	1.57	1.203 J			0.474	0.272 U			0.15	0.71
NICKEL	30.5 J	35 U			28.8 J	19.9 U			20.90	51.60
SILVER	0.71	0.15 J			0.13 U	0.065 UR			1.00	3.70
ZINC	376.2	330.3 U			298.3	75.475 U			150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.55211	0.35			0.2589				1.20	9.60
COPPER(SEM)	12.14085 U	132.7 J			18.9644 U				34.00	270.00
LEAD(SEM)	191.46479 J	702			42.62136 J				46.70	218.00
NICKEL(SEM)	5.94366 U	14.9 U			12.68608 U				20.90	51.60
ZINC(SEM)	117.77465	214.9 U			73.6246				150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		2.8				2.4				
PH		8.1				8.15				
TOTAL ORGANIC CARBON (%)		6.6				5.55				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/10/97			12/24/96	04/10/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE	30	26.7			56.4	27.1				
1-METHYLPHENANTHRENE	99.3	164			54.4	75.8				
2,3,5-TRIMETHYLNAPHTHALENE		12.8				7.4				
2,3,5-TRIMETYLNAPHTHALENE	22				11.3					
2,6-DIMETHYLNAPHTHALENE	31.4	23			41.3	22.7				
2-METHYLNAPHTHALENE	31.8	32.5			79.7	23.3				
ACENAPHTHENE	49	132.3			42.3	23.5			16.00	500.00
ACENAPHTHYLENE	98.2	69.2			82.7	44.7			44.00	640.00
ANTHRACENE	252	456			276	185			85.30	1100.00
BENZO(A)ANTHRACENE	764	1240			795 J	570			261.00	1600.00
BENZO(A)PYRENE	753	849			713	426			430.00	1600.00
BENZO(B)FLUORANTHENE		1590				847				
BENZO(BJK)FLUORANTHENE	1070				1400					
BENZO(E)PYRENE	497	554			532	326				
BENZO(G,H,I)PERYLENE	300 J	366			407	289				
BIPHENYL	8.8	9 U			16.5	7 U				
CHRYSENE	717	826			662 J	380			384.00	2800.00
DIBENZO(A,H)ANTHRACENE	90 J	120			133	82.7			63.40	260.00
FLUORANTHENE	1110	2460			1140	1080			600.00	5100.00
FLUORENE	54.3	126			42.7	33.4			19.00	540.00
HEXACHLOROBENZENE	0.2 J	1 U			0.1 J	1.3				
INDENO(1,2,3-CD)PYRENE	288	376			437	2364				
MIREX	0.2 J	0.1			2.7	2.6				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/10/97			12/24/96	04/10/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE	44.1	53.7			95.5	29.5			160.00	2100.00
PERYLENE	172	187			210	111				
PHENANTHRENE	756	1500			583	449			240.00	1500.00
PYRENE	1260	2080			1140	951			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs	4080	7580			4580	3490			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs	1060	2370			1200	788			552.00	3160.00
SUM OF TOTAL PAHs	8500	13300			8950	6250			4022.00	44792.00
TRANS-NONACHLOR	0.3 J	0.3 J			0.5 J	0.3 J				
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	2.3	0.7			6.3	14				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.8	0.7			10.7	24				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	0.2 J	0.6 U			3.9	3.9				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.5 U	0.5			12.5	6				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.5	0.8 U			5.7	3.8				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	0.4 J	0.5 U			2	3.3				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	1	1.1			16	14				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	0.4 J	0.6 U			4	2.3				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	3.2	3.1			32.4	18				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	1	1.3			34.9	19				
2,2',3,4,5'-PENTACHLOROBIPHENYL	0.3 J	0.6 U			3.3	5.4				
2,2',3,5-TETRACHLOROBIPHENYL	0.2 J	0.4 J			0.7	0.9				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	2.1	2.5			31.5	16				
2,2',4,5,5'-PENTACHLOROBIPHENYL	0.8	1.4 U			10.6	7.1				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/10/97			12/24/96	04/10/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.3 J	0.6			0.2 J	4.7				
2,2',5,5'-TETRACHLOROBIPHENYL	0.6 J	2.1 U			3.1	10				
2,2',5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.2 J	0.7 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	1.3	1.2			7.9	2.6				
2,3',4,4'-TETRACHLOROBIPHENYL	0.5 U	0.5 U			0.5 U	5.8				
2,3,3',4,4'-PENTACHLOROBIPHENYL	0.4 J	0.6 U			4.5	0.6 U				
2,4'-DDE	0.1 J	0.8 U			0.8 U	0.8 U			2.00	20.00
2,4'-DDT	1.3	2			2	11			1.00	7.00
2,4'-DICHLOROBIPHENYL	0.6	0.6 U			0.3 J	0.3 U				
2,4,4'-TRICHLOROBIPHENYL	0.5 J	1 U			0.5 J	2.9 U				
2,4,5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.7 U	0.7 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	0.5 U	0.5 U			7.9	0.5 U				
4,4'-DDD	5.4	6.7			104	99			2.00	20.00
4,4'-DDE	5	7.1			14	8.5			2.20	27.00
4,4'-DDT	6.7	9			17.6	17			1.00	7.00
ALDRIN	0.7 U	0.7 U			0.7 U	0.7 U				
ALPHA-CHLORDANE	0.5 J	0.5 J			0.8 U	1.5				
GAMMA-BHC (LINDANE)	0.6 U	0.6 U			0.6 U	0.6 U				
HEPTACHLOR	0.3 J	0.4 J			0.5 U	0.5 U				
HEPTACHLOR EPOXIDE	0.5 U	0.5 U			0.5 U	0.5 U				
SUM OF PCBS	35	40			398	331			22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	17	20			199	165				
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1012				BC-1016				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/10/97			12/24/96	04/10/97				
METALS (mg/kg)										
ALUMINUM	37383.3	12650.9			28591.9	20920				
ARSENIC	8.5	6.9			13.9	11.3			8.20	70.00
CADMIUM	0.3	0.48 J			0.84	0.46 J			1.20	9.60
CHROMIUM	126.2	48.8 J			208.8	81.6 J			81.00	370.00
COPPER	33.1 J	30 J			457.5 J	452 J			34.00	270.00
CYANIDE		1 U				1 U				
IRON	23281.2	16154.1			31667.1	30240.6				
LEAD	50.2	62.8 J			194.1	135 J			46.70	218.00
MANGANESE	405.6 J	244.8			379.3 J	381.2				
MERCURY	0.249	0.265 U			2.975	0.808 J			0.15	0.71
NICKEL	18.3 J	28.7 U			80.1 J	86.3 J			20.90	51.60
SILVER	0.19	0.13 UR			2.12	0.36 J			1.00	3.70
ZINC	316.4	114.9 U			715.9	416 U			150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.31333	0.4			0.41071	0.29			1.20	9.60
COPPER(SEM)	11.66667 U	17 U			114.64286 J	272.1 J			34.00	270.00
LEAD(SEM)	43.33333 J	53.8			102.85714 J	121			46.70	218.00
NICKEL(SEM)	6.66667 U	14.6 U			33.57143 U	32.4 U			20.90	51.60
ZINC(SEM)	67.3	126.6 U			389.39732	248 U			150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		3.3				3.2				
PH		8.1				8.1				
TOTAL ORGANIC CARBON (%)		7.6				7.5				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/09/97			01/15/97	04/09/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE	25.9	19.2			26.85	32.4				
1-METHYLPHENANTHRENE	38.3	66.1			53.15	203				
2,3,5-TRIMETHYLNAPHTHALENE		4.9				12				
2,3,5-TRIMETYLNAPHTHALENE	5.6				7.2					
2,6-DIMETHYLNAPHTHALENE	21.3	24			24.2	25.7				
2-METHYLNAPHTHALENE	29.5	23.1			29.15	28				
ACENAPHTHENE	24.8	18.5			32	126			16.00	500.00
ACENAPHTHYLENE	61.3	52.8			63.95	93			44.00	640.00
ANTHRACENE	196	157			216	811			85.30	1100.00
BENZO(A)ANTHRACENE	432	583			407.5	1710			261.00	1600.00
BENZO(A)PYRENE	535	389			497.5	918			430.00	1600.00
BENZO(B)FLUORANTHENE		895				2240				
BENZO(BJK)FLUORANTHENE	997				1049.5					
BENZO(E)PYRENE	377	329			391.5	825				
BENZO(G,H,I)PERYLENE	289 J	274			315 J	567				
BIPHENYL	7	6.4 U			7	10.4 U				
CHRYSENE	419	365			467	978			384.00	2800.00
DIBENZO(A,H)ANTHRACENE	88.4 J	74.1			87.95 J	155			63.40	260.00
FLUORANTHENE	739	916			1013.5	5660			600.00	5100.00
FLUORENE	31.3	24.7			35.55	262			19.00	540.00
HEXACHLOROBENZENE	0.1 J	0.4 U			0.5	0.6 U				
INDENO(1,2,3-CD)PYRENE	298	262			317.5	521				
MIREX	6.7 J	8			2.35 J	6.5				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/09/97			01/15/97	04/09/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE	35.8	29.3			32.5	41			160.00	2100.00
PERYLENE	200	112			153.5	232				
PHENANTHRENE	400	344			609.5	1140			240.00	1500.00
PYRENE	740	932			839	4220			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs	2950	3260			3080	13600			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs	779	10			911.5	2500			552.00	3160.00
SUM OF TOTAL PAHs	5990	5900			6680	20800			4022.00	44792.00
TRANS-NONACHLOR	0.7 J	0.9			0.85	1.6				
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	2.6	5.7			2.9	2.4				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	8.8	7.1			8.45	7.4				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	8.3	7			4.75	7.6				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	45.6	36			21.2	29				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	13.9	11			3.85	6.8				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	3.3	3.4			2.4	3				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	36.7	37			21.65	34				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	12.6	11			5.3	9.9				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	98.6	83			48.35	68				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	92.1	77			52.2	68				
2,2',3,4,5'-PENTACHLOROBIPHENYL	4.7	4.4			2.1	5				
2,2',3,5-TETRACHLOROBIPHENYL	0.9	0.7			0.5	1.6				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	93.4	74			48.85	70				
2,2',4,5,5'-PENTACHLOROBIPHENYL	26.2	22			11.9	23				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/09/97			01/15/97	04/09/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.4 J	0.5 U			0.45	0.6				
2,2',5,5'-TETRACHLOROBIPHENYL	3.1	2.8			2.1	3.5				
2,2',5-TRICHLOROBIPHENYL	0.3 J	0.7 U			0.425 J	0.7 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	13.6	6.3			4.55	9.7				
2,3',4,4'-TETRACHLOROBIPHENYL	0.5 U	0.5 U			0.5 U	19				
2,3,3',4,4'-PENTACHLOROBIPHENYL	0.6 U	0.6 U			0.6 U	0.6 U				
2,4'-DDE	0.8 U	0.8 U			0.4 J	2			2.00	20.00
2,4'-DDT	1 U	1 U			10.1	1 U			1.00	7.00
2,4'-DICHLOROBIPHENYL	0.8	0.4 U			1.4	0.3 U				
2,4,4'-TRICHLOROBIPHENYL	0.9	0.7 U			0.8	0.9 U				
2,4,5-TRICHLOROBIPHENYL	0.1 J	0.7 U			0.7 U	0.7 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	33.7	0.5 U			4.375	0.5 U				
4,4'-DDD	11.2	4.4			136.5	1060			2.00	20.00
4,4'-DDE	5.8	3			12.55	22			2.20	27.00
4,4'-DDT	24.8	0.6 U			63.75	0.6 U			1.00	7.00
ALDRIN	0.7 U	0.7 U			0.7 U	0.7 U				
ALPHA-CHLORDANE	0.8 U	0.8 U			0.55	1.9				
GAMMA-BHC (LINDANE)	0.6 U	0.6 U			0.45 J	0.6 U				
HEPTACHLOR	4.2 J	4.5			4.95 J	1.7				
HEPTACHLOR EPOXIDE	0.5 U	0.5 U			0.5 U	0.5 U				
SUM OF PCBS	1000	780			496	741			22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	501	390			248	371				
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1017				BC-1018				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/15/97	04/09/97			01/15/97	04/09/97				
METALS (mg/kg)										
ALUMINUM	34437.1	15602.7			42083.75	12793.3				
ARSENIC	9.6	10.7			11.6	10.5			8.20	70.00
CADMIUM	0.45	0.65 J				0.99 J			1.20	9.60
CHROMIUM	192.2	184.1 J			142.8	89.9 J			81.00	370.00
COPPER	222.6 J	241 J				198.9 J			34.00	270.00
CYANIDE		1 U				1 U				
IRON	33480.9	23911.4			34881.6	25819.2				
LEAD	67.7	103.5 J				193.2 J			46.70	218.00
MANGANESE	535.1 J	373.2			475.95 J	332.1 J				
MERCURY	0.496	0.343 U			0.555	0.589 J			0.15	0.71
NICKEL	36.8 J	85.3 J				51.6 U			20.90	51.60
SILVER	0.42	0.17 J			0.46	0.2 J			1.00	3.70
ZINC	506.9	275 U				444.8 U			150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.33684	0.33			0.3507	0.36			1.20	9.60
COPPER(SEM)	9.82456 U	34.5 J			111.0671 J	0.625 U			34.00	270.00
LEAD(SEM)	48.73684 J	57.9			93.4213 J	84.6			46.70	218.00
NICKEL(SEM)	12.63158 U	16.8 U			22.3298	8.5 U			20.90	51.60
ZINC(SEM)	289.33333	153 U			319.8398	129.3 U			150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		2.2				5.7				
PH		8.2				8.1				
TOTAL ORGANIC CARBON (%)		5.2				13.1				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/09/97			01/03/97	04/08/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE	26.9	26.4			8.2	19.3				
1-METHYLPHENANTHRENE	71.8	69.8			11.3	53.6 J				
2,3,5-TRIMETHYLNAPHTHALENE		4.5				3.1				
2,3,5-TRIMETYLNAPHTHALENE	8.5				4.8 U					
2,6-DIMETHYLNAPHTHALENE	21.7	8.8			8.6 U	24				
2-METHYLNAPHTHALENE	34.1	19.3			6.4	17.4				
ACENAPHTHENE	21.4	13.1			5.3 J	32.9			16.00	500.00
ACENAPHTHYLENE	55.7	39.2			5.5	28.8			44.00	640.00
ANTHRACENE	190	169 J			33.9	147.3			85.30	1100.00
BENZO(A)ANTHRACENE	540 J	557			50 J	485			261.00	1600.00
BENZO(A)PYRENE	449	289			45.3	393			430.00	1600.00
BENZO(B)FLUORANTHENE		747				755				
BENZO(BJK)FLUORANTHENE	924				102					
BENZO(E)PYRENE	359	305			72.7	307				
BENZO(G,H,I)PERYLENE	248	212			45	235				
BIPHENYL	14.2	6.4 U			6.4 U	6.9 U				
CHRYSENE	671 J	644 J			48.9 J	386			384.00	2800.00
DIBENZO(A,H)ANTHRACENE	78.8	50.4			17.2	68.2			63.40	260.00
FLUORANTHENE	974	1280 J			109	979			600.00	5100.00
FLUORENE	30.3	18.3			4 J	30.9			19.00	540.00
HEXACHLOROBENZENE	0.5	0.4 U			0.2 J	0.4 U				
INDENO(1,2,3-CD)PYRENE	267	181			39	231				
MIREX	0.6 U	0.8 J			0.6 U	0.3				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/09/97			01/03/97	04/08/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE	38.9	94.3			13.9	16.2			160.00	2100.00
PERYLENE	159	76.8			21.8	102				
PHENANTHRENE	410	335 J			87	428			240.00	1500.00
PYRENE	831	974			108	887			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs	3540	3790			378	3200			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs	781	688			156	12			552.00	3160.00
SUM OF TOTAL PAHs	6420	6120			834	5640			4022.00	44792.00
TRANS-NONACHLOR	0.4 J	0.4 J			0.3 J	0.3 J				
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	2	1.3 J			1.6	1.7				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	6	4.8 J			7.8	5.8				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	4.1	1.2 J			0.6 U	0.6 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	19	3.2 J			1.3	1.3				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	3.2	4.6 J			1.6	1.5 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	1.9	1.1 J			1.1	0.7 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	16.3	7.6 J			2.9	2.9				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	3.4	1 J			0.9	0.9				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	30.3	9.2 J			6.9	6.1				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	42	12 J			2.9	3.3				
2,2',3,4,5'-PENTACHLOROBIPHENYL	1.2	1.6 J			2.4	1.4				
2,2',3,5-TETRACHLOROBIPHENYL	0.5	0.2 J			1	0.7				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	30.7	8.1 J			7.6	4.9				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.2	2.4 U			5.1	3.2 U				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/09/97			01/03/97	04/08/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.2 J	0.5 U			0.4 J	0.8				
2,2',5,5'-TETRACHLOROBIPHENYL	1.5	0.7 U			2.5	2.1 U				
2,2',5-TRICHLOROBIPHENYL	0.6 J	0.7 U			0.4 J	0.7 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	3.4	2.1 J			5.1	2.9				
2,3',4,4'-TETRACHLOROBIPHENYL	0.5 U	2.8 J			0.5 U	0.5 U				
2,3,3',4,4'-PENTACHLOROBIPHENYL	0.6 U	0.6 U			2.3	1.2				
2,4'-DDE	0.8 U	0.8 U			0.8 U	0.8 U			2.00	20.00
2,4'-DDT	0.8 J	2.6 J			1.4	1.1			1.00	7.00
2,4'-DICHLOROBIPHENYL	0.4	0.3 U			0.4	0.4 U				
2,4,4'-TRICHLOROBIPHENYL	0.4 J	0.7 U			0.7 J	1.3 U				
2,4,5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.1 J	0.7 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	7.5	0.5 U			1.8	0.5 U				
4,4'-DDD	12.3	7.7 J			4.2	5.9			2.00	20.00
4,4'-DDE	3.8	2.8 J			2.1	3			2.20	27.00
4,4'-DDT	0.6 U	11 J			8.6	5.5			1.00	7.00
ALDRIN	0.7 U	0.7 UR			0.7 U	0.7 U				
ALPHA-CHLORDANE	0.6 J	1.5 J			0.5 J	0.6 J				
GAMMA-BHC (LINDANE)	0.6 U	0.6 U			0.6 U	0.6 U				
HEPTACHLOR	0.5 U	1.6 J			0.1 J	0.2 J				
HEPTACHLOR EPOXIDE	0.5 U	0.5 UJ			0.5 U	0.5 U				
SUM OF PCBS	360	128 J			114	88			22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	180	64 J			57	44				
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	BC-1020				CC-1004.3				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	12/24/96	04/09/97			01/03/97	04/08/97				
METALS (mg/kg)										
ALUMINUM	30412.6	16466.7			22953.1	22143.4				
ARSENIC	17.9	10.4			4.5	11			8.20	70.00
CADMIUM	0.61	0.91 J			0.17	0.57 J			1.20	9.60
CHROMIUM	170	66.8 J			106.5	89.9 J			81.00	370.00
COPPER	460.8 J	528.7 J			110.9 J	126.7 J			34.00	270.00
CYANIDE		1 U				1 U				
IRON	58088.6	28482.2			22685.5	41746.4				
LEAD	137.7	200.5 J			76.9	90.3 J			46.70	218.00
MANGANESE	684.4 J	385			674.3 J	342.9				
MERCURY	0.493	0.302 U			0.07	0.135 U			0.15	0.71
NICKEL	78.7 J	72.1 J			30.2 J	58.8 J			20.90	51.60
SILVER	0.48	0.3 J			0.19	0.13 UR			1.00	3.70
ZINC	804.1	777 J			514	398.8 U			150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.39535	0.38			0.09814	0.29			1.20	9.60
COPPER(SEM)	147.5 J	190.2 J			32.85956 U	15.5 U			34.00	270.00
LEAD(SEM)	81.97674 J	112.7			26.15905 U	49.2			46.70	218.00
NICKEL(SEM)	20.87209 U	27.2 U			13.67174 U	13.7 U			20.90	51.60
ZINC(SEM)	248.37209	374.5 J			137.90186	139.3 U			150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		1.7				1.9				
PH		8.3				8.2				
TOTAL ORGANIC CARBON (%)		3.9				4.4				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.5				CC-1011				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/22/97	04/09/97			01/03/97	04/09/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE		27.75 J			4.8 J	5.1				
1-METHYLPHENANTHRENE		69.7 J			14.6	15.1				
2,3,5-TRIMETHYLNAPHTHALENE		7.2 J				0.9 J				
2,3,5-TRIMETYLNAPHTHALENE					1.8 J					
2,6-DIMETHYLNAPHTHALENE		14.3 J			7.3 J	5.5 J				
2-METHYLNAPHTHALENE		29.1 J			6.3	4.6				
ACENAPHTHENE		43.9 J			6.2 J	7.8 J			16.00	500.00
ACENAPHTHYLENE		48.95 J			15.5	9			44.00	640.00
ANTHRACENE		228 J			45.3	37.8			85.30	1100.00
BENZO(A)ANTHRACENE		682.5 J			103	135			261.00	1600.00
BENZO(A)PYRENE		388.5 J			120	95.2			430.00	1600.00
BENZO(B)FLUORANTHENE		999.5 J				184				
BENZO(BJK)FLUORANTHENE					239					
BENZO(E)PYRENE		350.5 J			90.1	67.1				
BENZO(G,H,I)PERYLENE		232 J			65.2 J	55.9				
BIPHENYL		7.65 U			6.4 U	6.4 U				
CHRYSENE		592 J			116	103			384.00	2800.00
DIBENZO(A,H)ANTHRACENE		64.95 J			19.4 J	15.5			63.40	260.00
FLUORANTHENE		1875 J			179	289			600.00	5100.00
FLUORENE		39.8 J			6.7 J	8.2			19.00	540.00
HEXACHLOROBENZENE	0.1 J	0.4 U			0.4 U	0.4 U				
INDENO(1,2,3-CD)PYRENE		227.5 J			68.2	55				
MIREX	1.4 J	0.95			0.6 U	0.1				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.5				CC-1011				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/22/97	04/09/97			01/03/97	04/09/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE		34.75 J			8.1	8			160.00	2100.00
PERYLENE		94.3 J			42.4	24.1				
PHENANTHRENE		649 J			109	129			240.00	1500.00
PYRENE		1565 J			175	248			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs		5165 J			712	886			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs		705.5 J			198	204			552.00	3160.00
SUM OF TOTAL PAHs		8270 J			1438	1510			4022.00	44792.00
TRANS-NONACHLOR	1.4	1.2			0.1 J	0.1 J				
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	1.5	2			0.3 J	0.8				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	7.1	10.3			0.8	0.6				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	1.5	1.1			0.1 J	0.6 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	6.6	3.9			0.5 U	0.5				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	2.3	1.85			0.4 J	0.4 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	0.9	1.2			0.1 J	0.5 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	7	5.85			0.5	0.6				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	1.9	1.6			0.2 J	0.6 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	15.6	12.5			1.8	1.4 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	15.8	9.6			0.6	0.9 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	2	1.7			0.3 J	0.6 U				
2,2',3,5-TETRACHLOROBIPHENYL	0.9	1.05			0.5 J	0.4 J				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	14.6	9.55			1.3	1 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	5.9	4.8			0.9	0.6 U				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.5				CC-1011				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/22/97	04/09/97			01/03/97	04/09/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.4 J	0.75			0.3 J	0.5 U				
2,2',5,5'-TETRACHLOROBIPHENYL	1.6	1.95			0.6 J	0.7 U				
2,2',5-TRICHLOROBIPHENYL	0.4 J	0.7 U			0.5 J	0.7 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	4.6	4.65			1.1	0.7 U				
2,3',4,4'-TETRACHLOROBIPHENYL	0.5 U	0.5 U			0.7	0.4				
2,3,3',4,4'-PENTACHLOROBIPHENYL	1.9	1.75			0.5 J	0.6 U				
2,4'-DDE	0.9	0.6			0.8 U	0.8 U			2.00	20.00
2,4'-DDT	37.5	15			0.5 J	0.8 J			1.00	7.00
2,4'-DICHLOROBIPHENYL	0.4	0.5 U			0.3 J	0.3 U				
2,4,4'-TRICHLOROBIPHENYL	0.7	1.1 U			1	0.7 U				
2,4,5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.7 U	0.7 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	3.7	0.5 U			0.3 J	0.5 U				
4,4'-DDD	267	161			3.7	2.6			2.00	20.00
4,4'-DDE	38.3	22			2.8	3.2			2.20	27.00
4,4'-DDT	166	76.5			2.7	4 U			1.00	7.00
ALDRIN	0.7 U	0.7 U			0.7 U	0.7 U				
ALPHA-CHLORDANE	2.6	1.85			0.1 J	0.1 J				
GAMMA-BHC (LINDANE)	0.6 U	0.6 U			0.6 U	0.6 U				
HEPTACHLOR	0.3 J	0.35 J			0.1 J	0.5 U				
HEPTACHLOR EPOXIDE	0.5 U	0.5 U			0.5 U	0.5 U				
SUM OF PCBS	195	157			26	21			22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	97	78.5			13	10				
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	CC-1004.5				CC-1011				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/22/97	04/09/97			01/03/97	04/09/97				
METALS (mg/kg)										
ALUMINUM	23740.5	8875.5			23397.3	3894.6				
ARSENIC	7.2	9.2			6.2	3.8			8.20	70.00
CADMIUM	0.19	0.265			0.2	0.09 J			1.20	9.60
CHROMIUM	259	115.35 J			113.6	32.3 J			81.00	370.00
COPPER	280.7 J	205.575 J			20.3 J	2.3 U			34.00	270.00
CYANIDE		1 U				1 U				
IRON	78925.4	41221			22695.9	9763				
LEAD	218	133.3			31.8	14.8 J			46.70	218.00
MANGANESE	651 J	429.65			463.9 J	257.1				
MERCURY	0.284	0.2316 U			0.101	0.035 U			0.15	0.71
NICKEL	97.6 J	45.45			19.7 J	24.8 U			20.90	51.60
SILVER	0.31	0.065 UR			0.13 U	0.13 UR			1.00	3.70
ZINC	1089	316.3875			273.8	50.4 U			150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.10278				0.13361	0.08			1.20	9.60
COPPER(SEM)	83.13889 J				7.78706 U	2.2 U			34.00	270.00
LEAD(SEM)	67.16667 J				16.49269 U	12.9 U			46.70	218.00
NICKEL(SEM)	19.56944 U				3.73695 U	5.7 U			20.90	51.60
ZINC(SEM)	507.69444				38.24635 U	37.8 U			150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		1.5				0.9				
PH		8.25				8.3				
TOTAL ORGANIC CARBON (%)		3.45				2				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1001				SP-1002				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			01/15/97	04/08/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE	7.4	2.9 J			7.1 U	3.1 J				
1-METHYLPHENANTHRENE	12.1	14.4			6.3	10.2				
2,3,5-TRIMETHYLNAPHTHALENE		1.4 J				1 J				
2,3,5-TRIMETYLNAPHTHALENE	1.7 J				4.8 U					
2,6-DIMETHYLNAPHTHALENE	3.5 J	3.1 J			8.6 U	7.2 J				
2-METHYLNAPHTHALENE	9.4	4.3			3.6 U	4.5				
ACENAPHTHENE	2.4 J	3.6 J			1.4 J	3.8 J			16.00	500.00
ACENAPHTHYLENE	8.6	10.6			2.3 J	6.1			44.00	640.00
ANTHRACENE	34.2	45.4			7.7 J	28.7			85.30	1100.00
BENZO(A)ANTHRACENE	118 J	177			13.1 J	72.5			261.00	1600.00
BENZO(A)PYRENE	84.4	117			20.1	50.7			430.00	1600.00
BENZO(B)FLUORANTHENE		258				115				
BENZO(BJK)FLUORANTHENE	163				43.9					
BENZO(E)PYRENE	76.4	93.9			23.8	42.6				
BENZO(G,H,I)PERYLENE	49.3	84.4			16.1	34.7				
BIPHENYL	6.4 U	6.4 U			6.4 U	6.4 U				
CHRYSENE	113 J	98.7			14.8 J	54.9			384.00	2800.00
DIBENZO(A,H)ANTHRACENE	15.3	24.3			2.8 U	10.6			63.40	260.00
FLUORANTHENE	284	372			39.5	179			600.00	5100.00
FLUORENE	5.8 J	8.9			7 U	6 J			19.00	540.00
HEXACHLOROBENZENE	0.1 J	0.4 U			0.1 J	0.5 U				
INDENO(1,2,3-CD)PYRENE	48.9	74			15.5	32.8				
MIREX	0.6 U	0.2 J			0.6 U	0.6 U				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1001				SP-1002				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			01/15/97	04/08/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE	11.4	5.3			2.8 J	5.6			160.00	2100.00
PERYLENE	31.6	33.3			8.4	14.5				
PHENANTHRENE	112	161			20.2	94.4			240.00	1500.00
PYRENE	233	298			30.8	141			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs	848	1090			118	509			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs	184	8			34.5	149			552.00	3160.00
SUM OF TOTAL PAHs	1430	1890			267	920			4022.00	44792.00
TRANS-NONACHLOR	5.4	7			0.2 J	0.2 J				
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.1 J	0.5 U			0.2 J	0.5 U				
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.4 J	0.5 U			0.4 J	0.5 U				
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	0.2 J	0.6 U			0.6 U	0.6 U				
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.5 U	0.3 J			0.5 U	0.2				
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.7	0.6 U			0.2 J	0.4 U				
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	0.1 J	0.5 U			0.1 J	0.5 U				
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	0.8	0.6 U			0.3 J	0.6 U				
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	0.7	0.9			0.1 J	0.6 U				
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	2.2	1.9 U			0.7	0.9 U				
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	0.9	0.7 U			0.3 J	0.5 U				
2,2',3,4,5'-PENTACHLOROBIPHENYL	0.4 J	0.6 U			0.2 J	0.6 U				
2,2',3,5-TETRACHLOROBIPHENYL	0.2 J	0.2 J			0.1 J	0.4 J				
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	1.7	1.7 U			0.5	0.6 U				
2,2',4,5,5'-PENTACHLOROBIPHENYL	1	0.8 U			0.4 J	0.8 U				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1001				SP-1002				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			01/15/97	04/08/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.1 J	0.5 U			0.5 U	0.5 U				
2,2',5,5'-TETRACHLOROBIPHENYL	0.7 U	0.7 U			0.7 U	1 U				
2,2',5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.7 U	0.7 U				
2,3',4,4',5-PENTACHLOROBIPHENYL	1.1	0.7 U			0.3 J	0.7 U				
2,3',4,4'-TETRACHLOROBIPHENYL	0.5 U	0.5 U			0.5 U	1.1				
2,3,3',4,4'-PENTACHLOROBIPHENYL	0.4 J	0.6 U			0.1 J	0.6 U				
2,4'-DDE	0.5 J	0.5			0.2 J	0.2			2.00	20.00
2,4'-DDT	17.2	20			5.2	2.6			1.00	7.00
2,4'-DICHLOROBIPHENYL	0.6	0.3 U			0.2 J	0.5 U				
2,4,4'-TRICHLOROBIPHENYL	0.1 J	0.7 U			0.1 J	0.7 U				
2,4,5-TRICHLOROBIPHENYL	0.7 U	0.7 U			0.7 U	0.7 U				
3,3',4,4',5-PENTACHLOROBIPHENYL	0.2 J	0.5 U			0.3 J	0.1 J				
4,4'-DDD	169.9	289			6.5	6.3			2.00	20.00
4,4'-DDE	14.3	12			6.7	5.1			2.20	27.00
4,4'-DDT	65.5	265			45.1	10			1.00	7.00
ALDRIN	0.7 U	0.7 U			0.7 U	0.7 U				
ALPHA-CHLORDANE	16.6	24			0.5 J	0.5 J				
GAMMA-BHC (LINDANE)	0.6 U	0.6 U			0.6 U	0.6 U				
HEPTACHLOR	0.5 U	0.5 U			0.1 J	0.1 J				
HEPTACHLOR EPOXIDE	0.5 J	0.5 J			0.5 U	0.5 U				
SUM OF PCBS	24	20			9	19			22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	12	10			4.5	10				
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1001				SP-1002				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			01/15/97	04/08/97				
METALS (mg/kg)										
ALUMINUM	30220.2	21623.8			26750	6015.5				
ARSENIC	5.4	6.9			6.5	4.4			8.20	70.00
CADMIUM	0.09	0.39 J			0.05	0.09 J			1.20	9.60
CHROMIUM	95.8	49 J			90	36.7 J			81.00	370.00
COPPER	15.9 J	13.6 J			26 J	9.3 J			34.00	270.00
CYANIDE		1 U				1 U				
IRON	25742.9	24849.9			19735.6	11916.8				
LEAD	31.8	43.6 J			32.8	58.9 J			46.70	218.00
MANGANESE	513.8 J	505.8			247.3 J	222.5				
MERCURY	0.065	0.05 UJ			0.225	0.037 U			0.15	0.71
NICKEL	34.2 J	41.9 U			27.9 J	25.6 U			20.90	51.60
SILVER	0.13 U	0.13 UR			0.13 U	0.13 UR			1.00	3.70
ZINC	215.3	207 U			218.8	199.7 U			150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.09607	0.06			0.03018	0.05			1.20	9.60
COPPER(SEM)	30.41485 U	16.5 U			8.67203 U	12.1 U			34.00	270.00
LEAD(SEM)	22.07424 U	21.3			16.45875 U	16.5 U			46.70	218.00
NICKEL(SEM)	6.20087 U	4.1 U			6.51911 U	4.9 U			20.90	51.60
ZINC(SEM)	50.30568 U	39.8 U			57.60563	46.2 U			150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		0.9				0.9				
PH		8.1				8.1				
TOTAL ORGANIC CARBON (%)		2.1				2.1				

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1003				SP-1004.5				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			/ /	01/03/97				
SEMIVOLATILES (µg/kg)										
1-METHYLNAPHTHALENE	11.4	10.2				17.9				
1-METHYLPHENANTHRENE	15.1	34.3				29.5				
2,3,5-TRIMETHYLNAPHTHALENE		3.7 J								
2,3,5-TRIMETYLNAPHTHALENE	4.2 J					4.3 J				
2,6-DIMETHYLNAPHTHALENE	12.3	17.4				9.2				
2-METHYLNAPHTHALENE	18.7	16.7				19.4 J				
ACENAPHTHENE	5.05 J	9.8				27.2			16.00	500.00
ACENAPHTHYLENE	10.1	25				37.8			44.00	640.00
ANTHRACENE	48.3	95.1				145			85.30	1100.00
BENZO(A)ANTHRACENE	120.5	219				323 J			261.00	1600.00
BENZO(A)PYRENE	106	195				261			430.00	1600.00
BENZO(B)FLUORANTHENE		410								
BENZO(BJK)FLUORANTHENE	245.5					607				
BENZO(E)PYRENE	92.6	163				210				
BENZO(G,H,I)PERYLENE	57 J	109				129				
BIPHENYL	4.6 J	6.4 U				6.3				
CHRYSENE	286.5	300				347 J			384.00	2800.00
DIBENZO(A,H)ANTHRACENE	17.95 J	28.5				36.4			63.40	260.00
FLUORANTHENE	212.5	538				558			600.00	5100.00
FLUORENE	7.35	12.7				26.4			19.00	540.00
HEXACHLOROBENZENE	0.15 J	0.4 U								
INDENO(1,2,3-CD)PYRENE	59.45	95.9				146				
MIREX	0.6 U	0.2								

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1003				SP-1004.5				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			/ /	01/03/97				
SEMIVOLATILES (µg/kg)										
NAPHTHALENE	14.95	17.1				31.6			160.00	2100.00
PERYLENE	37.35	52.7				75.3				
PHENANTHRENE	119.8	189.2				352			240.00	1500.00
PYRENE	184.5	460				543			665.00	2600.00
SUM OF HIGH MOLECULAR WEIGHT PAHs	926	1740				2070			1700.00	9600.00
SUM OF LOW MOLECULAR WEIGHT PAHs	224.5	366				640			552.00	3160.00
SUM OF TOTAL PAHs	1695	3010				3940			4022.00	44792.00
TRANS-NONACHLOR	0.2 J	0.3 J								
PESTICIDES/PCBs (µg/kg)										
2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	0.25 J	0.5 U								
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	0.95	1.3								
2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL	0.2	0.6 U								
2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL	0.575	0.9								
2,2',3,3',4,4'-HEXACHLOROBIPHENYL	0.8	1.5 U								
2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL	0.2 J	0.5 U								
2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL	0.65	1.4								
2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL	0.25 J	0.6								
2,2',3,4,4',5'-HEXACHLOROBIPHENYL	2.8	5.9								
2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL	1.05	1.8								
2,2',3,4,5'-PENTACHLOROBIPHENYL	0.75	1.4								
2,2',3,5-TETRACHLOROBIPHENYL	0.25 J	0.3 J								
2,2',4,4',5,5'-HEXACHLOROBIPHENYL	1.8	3.4								
2,2',4,5,5'-PENTACHLOROBIPHENYL	1.55	2.6 U								

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1003				SP-1004.5				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			/ /	01/03/97				
PESTICIDES/PCBs (µg/kg)										
2,2',4,6-TETRACHLOROBIPHENYL	0.175	0.5 U								
2,2',5,5'-TETRACHLOROBIPHENYL	0.525	0.7 U								
2,2',5-TRICHLOROBIPHENYL	0.1 J	0.7 U								
2,3',4,4',5-PENTACHLOROBIPHENYL	1.8	3.7								
2,3',4,4'-TETRACHLOROBIPHENYL	0.5 U	0.5 U								
2,3,3',4,4'-PENTACHLOROBIPHENYL	0.7	1.7								
2,4'-DDE	0.8 U	0.8 U							2.00	20.00
2,4'-DDT	1.2	2							1.00	7.00
2,4'-DICHLOROBIPHENYL	0.15 J	0.3 U								
2,4,4'-TRICHLOROBIPHENYL	0.15 J	0.7 U								
2,4,5-TRICHLOROBIPHENYL	0.7 U	0.7 U								
3,3',4,4',5-PENTACHLOROBIPHENYL	0.275	0.2								
4,4'-DDD	24.5	10							2.00	20.00
4,4'-DDE	3.95	9							2.20	27.00
4,4'-DDT	9.95	13							1.00	7.00
ALDRIN	0.7 U	0.7 U								
ALPHA-CHLORDANE	0.35 J	0.4 J								
GAMMA-BHC (LINDANE)	0.6 U	0.6 U								
HEPTACHLOR	0.5 U	0.1								
HEPTACHLOR EPOXIDE	0.5 U	0.5 U								
SUM OF PCBS	30.1	58							22.70	180.00
SUM OF THE 24 CHLOROBIPHENYLS	15.05	29								
METALS (mg/kg)										

SEDIMENT RESULTS ROUNDS 7 THROUGH 10
CTO 232 PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

WELL:	SP-1003				SP-1004.5				NOAA_ERL	NOAA_ERM
ROUND NO.:	ROUND 07 *	ROUND 08	ROUND 09	ROUND 10	ROUND 07	ROUND 08	ROUND 09	ROUND 10		
SAMPLE DATE:	01/03/97	04/08/97			/ /	01/03/97				
METALS (mg/kg)										
ALUMINUM	20234.2	5293.5								
ARSENIC	10.25	6.3							8.20	70.00
CADMIUM		0.28 J							1.20	9.60
CHROMIUM	99.35	46.3 J							81.00	370.00
COPPER		25.5 J							34.00	270.00
CYANIDE		1 U								
IRON	24181.1	12882.6								
LEAD		64.2 J							46.70	218.00
MANGANESE	274.55 J	205								
MERCURY	0.102	0.08 U							0.15	0.71
NICKEL		28.2 U							20.90	51.60
SILVER	0.13 U	0.13 UR							1.00	3.70
ZINC		108.8 U							150.00	410.00
AVS/SIMULTANEOUSLY EXTRACTED METALS (mg/kg)										
CADMIUM(SEM)	0.2201	0.23							1.20	9.60
COPPER(SEM)	30.9278	15.4 U							34.00	270.00
LEAD(SEM)	74.1105 J	67.7							46.70	218.00
NICKEL(SEM)	18.7694	8.7 U							20.90	51.60
ZINC(SEM)	257.022	90.9 U							150.00	410.00
MISCELLANEOUS PARAMETERS (%)										
ORGANIC CARBON (%)		1.6								
PH		7.4								
TOTAL ORGANIC CARBON (%)		3.7								

CHAIN OF CUSTODY RECORDS

SEEP AND SEDIMENT SAMPLES

Katahdin ANALYTICAL SERVICES

340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400

CHAIN of CUSTODY

~~Katahdin~~ TE K# 040897

Page 1 of 1

* PLEASE PRINT IN PEN

Client: Brown + Root Environmental | Contact: Mark Mengel | Phone #: (412) 921-7090 | Fax #: (412) 921-404

Address: 661 Andersen Dr VII | City: Pittsburgh | State: PA | Zip Code: ~~15~~ 15220

P.O. #: | Proj. Name/No.:

Bill (if different than above): | Address:

Sample (Print/Sign): Timothy S Evans / Jon Wakeman [illegible] (Add'l in [illegible]) | Copies To:

LAB USE ONLY WORK ORDER #:

KATAHDIN PROJECT MANAGER _____

REMARKS: _____

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO: _____

TEMP°C _____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date/Time coll'd	Matrix	Filt. Y/N	No. of Cntrs.	125 ml glass / H_2SO_4 TOC	1 L HDPE / None BOD	1 L HDPE / NaOH Cyanide	1 L HDPE / None pH, alkalinity, Cl, SO_4, NO_3	1 L HDPE / None Bromide	1 L HDPE / None TDS, TSS	8 oz glass CN, pH			
*	SP-1003-SP-0497	4/8/97 / 0605	H_2O	N	6	1	1	1	1	1	1				
	~~SP-1003-SP-0497-E~~	/ 0605		Y		Void									
	CC-1004.4-SP-0497	/ 0600	H_2O	N	6	1	1	1	1	1	1				
	SP-1001-SP-0497	/ 0630			6	1	1	1	1	1	1				
	SP-1002-SP-0497	/ 0645			6	1	1	1	1	1	1				
	CC-1004.3-SP-0497	/ 0635			6	1	1	1	1	1	1				
**	SP-1003-SD-0497	/ 0605	Sed	N	1							1			
	SP-1001-SD-0497	/ 0612			1							1			
	SP-1002-SD-0497	/ 0633			1							1			
	CC-1004.3-SD-0497	/ 0650			1							1			
	SDRB-040897	/ 0938	H_2O	N	1			1					• Rinsate Blank		
	~~SPR~~ SPFB-040897	/ 1035	H_2O	N	6	1	1	1	1	1	1		• Field Blank		
		/													
		/													
		/													
		/													

COMMENTS: * = seeps
** = sediment

Clyde Snyder [signature] Tim Rogal Tony Ri

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	4/9/97 1450	[signature]			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

Katahdin
ANALYTICAL SERVICES

340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400

CHAIN of CUSTODY

K# 040997

Page ___ of

* PLEASE PRINT IN PEN

Client: Brown & Root Environmental | Contact: Mark Mengel | Phone #: (412) 921-7040 | Fax #: (412) 921-4[illegible]

Address: 661 Andersen Dr VII | City: Pittsburgh | State: PA | Zip Code: 15220

P.O. #: | Proj. Name/No.: PNSY / 6515

Bill (if different than above): | Address:

Sample (Print/Sign): Timothy S Evans, Tim Wilkerson, Richard Boston, TERRY ROSAHN | Copies To:

LAB USE ONLY | WORK ORDER #: | KATAHDIN PROJECT MANAGER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date/Time coll'd	Matrix	Filt. Y/N	No. of Cntrs.	125 mL glass / H_2SO_4 TOC	1 L HDPE / None BOD	1 L HDPE / NaOH Cyanide	1 L HDPE / None pH, alkalinity, Cl, SO_4, NO_3	1 L HDPE / None Bromide	1 L HDPE / None TDS / TSS	8 oz glass Cyanide, pH		
*	SPFD-040997	4/9/97 / 0000	H_2O	N	4	1	1	1			1			
**	SDFD-040997	4/9/97 / 0000	Sed	N	1							1		
*	CC-1011-SP-0497	4/9/97 / 0724	H_2O	N	6	1	1	1	1	1	1			
**	CC-1011-SD-0497	4/9/97 / 0648	Sed	N	1							1		
*	CC-1004.5-SP-0497	4/9/97 / 0815	H_2O	N	4	1	1	1			1			
**	CC-1004.5-SD-0497	4/9/97 / 0706	Sed	N	1							1		
*	BC-1018-SP-0497	4/9/97 / 0630	H_2O	N	18	3	3	3	3	3	3		← MS / MSD	
*	BC-1020-SP-0497	4/9/97 / 0650	↓	N	6	1	1	1	1	1	1			
*	BC-1017-SP-0497	4/9/97 / 0735	↓	N	6	1	1	1	1	1	1			
**	BC-1018-SD-0497	4/9/97 / 0715	Sed	N	2							2	← MS / MSD	
**	BC-1020-SD-0497	4/9/97 / 0655	↓	N	1							1		
**	BC-1017-SD-0497	4/9/97 / 0740	↓	N	1							1		
		/												
		/												
		/												
		/												

COMMENTS
* seep
** sediment

Clyde Snyder Kaylen Jalkut

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Terry Rosahn	4/9/97 1530	Bill Hernandez			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

Katahdin
ANALYTICAL SERVICES

340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400

CHAIN of CUSTODY

K#041097

Page ___ of ___

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Client: Brown & Root Environmental | Contact: Mark Hengel | Phone #: (412) 921-7090 | Fax #: (412) 921-7040

Address: 661 Andersen Dr VII | City: Pittsburgh | State: PA | Zip Code: 15220

P.O. #: | Proj. Name/No.: PNSY / 65155

Bill (if different than above): | Address:

Sample (Print/Sign): Timothy S Evans, Kenneth Hurst, Terry Roanhn, Richard Stockton | Copies To:

LAB USE ONLY WORK ORDER #:

KATAHDIN PROJECT MANAGER _____

REMARKS: _____

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO: _____

TEMP°C _____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date/Time coll'd	Matrix	Filt. Y/N	No. of Cntrs.	125 mL glass/H_2SO_4 TOC	1L HDPE/None H_2O	1L HDPE/$NaOH$ Cyanide	1L HDPE/None pH alkalinity Cl SO_4	1L HDPE/None Bromide	1L HDPE/None TDS TSS	8oz glass/None Cyanide pH
★	SPFD-041097	4/10/97 / 0000	H_2O	N	6	1	1	1	1	1	1	
★★	SDFD-041097	/ 0000	sed	N	1							1
★	BC-1006-SP-0497	/ 0740	H_2O	N	6	1	1	1	1	1	1	
★★	BC-1006-SD-0497	/ 0800	sed	N	1							1
★	BC-1005-SP-0497	/ 0748	H_2O	N	6	1	1	1	1	1	1	
★★	BC-1005-SD-0497	/ 0745	sed	N	1							1
★	BC-1012-SP-0497	/ 0825	H_2O	N	6	1	1	1	1	1	1	
★★	BC-1012-SD-0497	/ 0815	sed	N	1							1
★	BC-1016-SP-0497	/ 0752	H_2O	N	6	1	1	1	1	1	1	
★★	BC-1016-SD-0497	/ 0745	sed	N	1							1
		/										
		/										
		/										
		/										
		/										
		/										

COMMENTS
★ seep
★★ sediment

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Terry Roanhn	4/14/97 1570	Beverly Moore			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

Page 1 of ~~X~~ TE

URI # 040897

CHAIN OF CUSTODY RECORD

PROJECT NO.: 6515

SITE NAME: Portsmouth NSY

SAMPLERS (SIGNATURE): Timothy E [illegible] Richard J. Barton [illegible] Terry Rogal [illegible]

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	4L Amber TCL PAHs Pest/PCB	Total TAL Metals	Diss. TAL Metals	8 oz glass HOPE TCL PAHs Pest/PCB	8 oz glass HOPE Metals TOC AVS grain size		REMARKS
CC-1004.4	4/8/97	0600		✓	CC-1004.4-SP-0497	2	1 ~~X~~ TE	1	~~X~~				SEEP
↓		0600		✓	CC-1004.4-SP-0497-F	1			1				Dissolved
SP-1003		0605		✓	SP-1003-SP-0497	2	1	1					
↓		0605		✓	SP-1003-SP-0497-F	1			1				Dissolved
SP-1001		0630		✓	SP-1001-SP-0497	2	1	1					
↓		0630		✓	SP-1001-SP-0497-F	1			1				Dissolved
SP-1002		0645		✓	SP-1002-SP-0497	2	1	1					
↓		0645		✓	SP-1002-SP-0497-F	1			1				Dissolved
CC-1004.3		0635		✓	CC-1004.3-SP-0497	2	1	1					
↓		0635		✓	CC-1004.3-SP-0497-F	1			1				Dissolved
~~SP-1003~~		~~0605~~		~~✓~~	~~SP-1003-SD-0497~~	~~2~~				~~1~~	~~1~~		VOID ~~Sediment~~
~~SP-1001~~		~~0612~~		~~✓~~	~~SP-1001-SD-0497~~	~~2~~				~~1~~	~~1~~		VOID
~~SP-1002~~		~~0633~~		~~✓~~	~~SP-1002-SD-0497~~	~~2~~				~~1~~	~~1~~		VOID
~~CC-1004.3~~		~~0650~~		~~✓~~	~~CC-1004.3-SD-0497~~	~~2~~				~~1~~	~~1~~		VOID

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Terry Rogal	4/8/97 1500	FEDERAL EXPRESS			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: FedEx AB # 2383805141 SHIPPED to URI for analysis	

rder No. 70440 (0693)

URI #040897

CHAIN OF CUSTODY RECORD

PROJECT NO.: 6515

SITE NAME: Portsmouth NSY

SAMPLERS (SIGNATURE): Timothy Sz Richard J. Barton Ted Hogal

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	4L Amber TCL PAHs Pest/PCB	Total TAL Metals						REMARKS
SPFB	4/8/97	1035		✓	SPFB-040897	2	1	1						Field Blank scep

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
Ted Hogal	4-8-97 1500	FEDERAL EXPRESS			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: FED EX AB# 2383805141 SHIPPED to URI For Analysis	

Order No. 70440 (0693)

Brown & Root Environmental (412) 921-7090
661 Andersen Dr VII
Pittsburgh PA 15220

CHAIN OF CUSTODY RECORD

040997
URI # ~~040997~~ TE

PROJECT NO.: 6515

SITE NAME: Portsmouth NSY

SAMPLERS (SIGNATURE): Timothy S. Richard Bastow

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	4L Amber/CH2Cl2 TCL PAH Pest/PCB	500mL/HNO3 Total TAL Metal	500mL/HNO3 Diss TAL Metals				REMARKS
Duplicate	4/9/97	0000		✓	SPFD-040997	23	1	1	X TE				
~~Duplicate~~		~~0000~~		~~✓~~	~~SDFD-040997~~								VOID
Duplicate	4/9/97	0000		✓	SPFD-040997-F	1			1				
CC-1011		0729		✓	CC-1011-SP-04~~09~~97	2	1	1					
↓		0729		✓	CC-1011-SP-04~~09~~97-F TE	1			1				
CC-1004.5		0815		✓	CC-1004.5-SP-0497	2	1	1					
↓		0815		✓	CC-1004.5-SP-0497-F	1			1				
BC-1018		0630		✓	BC-1018-SP-0497	6	3	3					MS/MSD
BC-1020		0650		✓	BC-1020-SP-0497	2	1	1					
BC-1017		0735		✓	BC-1017-SP-0497	2	1	1					
BC-1018		0630		✓	BC-1018-SP-0497-F	3			3				MS/MSD
BC-1020		0650		✓	BC-1020-SP-0497-F	1			1				
BC-1017	↓	0735		✓	BC-1017-SP-0497-F	1			1				

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Terry Mozal	4/9/97 1600	FED EXPRESS			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: FedEX #2383805126 SHIP TO URI FOR ANALYSIS	

Order No. 70440 (0693)

Brown & Root Environmental
661 Andersen Dr VII
Pittsburgh PA 15220

CHAIN OF CUSTODY RECORD

URI#041097-1

PROJECT NO.: 6515

SITE NAME: Portsmouth NSY

SAMPLERS (SIGNATURE): [illegible]

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	4L Amber/CH2Cl2 TCL PAHs	500mL Poly/RCB	500mL HDPE/HNO3 Total TAL Metals	500mL HDPE/HNO3 Diss. TAL Metals				REMARKS
—	4/10/97	0000		✓	SPFD-041097	2	1	1	X TE					Duplicate
—	4/10/97	0000		✓	SPFD-041097-F	1			1					↓
~~—~~		~~0000~~		~~✓~~	~~SDFD-041097~~									VOID
BC-1006	4/10/97	0740		✓	BC-1006-SP-0497	2	1	1						
↓	4/10/97	0740		✓	BC-1006-SP-0497-F	1			1					
BC-1005	4/10/97	0748		✓	BC-1005-SP-0497	2	1	1						
↓	4/10/97	0748		✓	BC-1005-SP-0497-F	1			1					
BC-1016	4/10/97	0752		✓	BC-1016-SP-0497	2	1	1						
↓	4/10/97	0752		✓	BC-1016-SP-0497-F	1			1					
BC-1012	4/10/97	0825		✓	BC-1012-SP-0497	2	1	1						
↓	4/10/97	0825		✓	BC-1012-SP-0497-F	1			1					

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
[illegible]	4/14/97 1530	FED. EXPRESS AB# 2383805104			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: FedEx# 2383805104 SHIPPED to URI FOR ANALYSIS	

Order No. 70440 (0693)

Brown & Root Environmental
661 Andersen Dr VII
Pittsburgh PA 15220 (412)921-7090

Page 1 of 2 ~~Page 2 of 2~~
URI # ~~040897~~ TE
041097-2

CHAIN OF CUSTODY RECORD

PROJECT NO.: 6575

SITE NAME: Portsmouth NSY

SAMPLERS (SIGNATURE): Tony Royal, Richard T. Baxter

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz Glass Jar Metals	8 oz Glass Jar TCL Pest/PCB	8 oz Glass Jar Metals, TOC, Avs/SEM 9 in 5 oz				REMARKS
—	4/8/97	0958		✓	SORB-040897	2	1	1					Rinsate Blank
SP-1003		0605		✓	SP-1003-SD-0497	2	1	1					
SP-1001		0612		✓	SP-1001-SD-0497	2	1	1					
SP-1002		0633		✓	SP-1002-SD-0497	2	1	1					
CC 1004.3		0650		✓	~~SD~~ CC-1004.3-SD-0497 TE	2	1	1					
CC-1011	4/9/97	0648		✓	CC-1011-SD-0497	2	1	1					
BC-1020		0655		✓	BC-1020-SD-0497	2	1	1					
CC-1004.5		0706		✓	CC-1004.5-SD-0497	2	1	1					
BC-1018		0715		✓	BC-1018-SD-0497	4	2	2					MS/MSD
BC-1017		0740		✓	BC-1017-SD-0497	2	1	1					
—		0000		✓	SDFD-040997	2	1	1					Duplicate
—	4/10/97	0000		✓	SDFD-041097	2	1	1					Duplicate
BC-1005		0745		✓	BC-1005-SD-0497	2	1	1					
BC-1016		0745		✓	BC-1016-SD-0497	2	1	1					

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Tony Royal	4/10/97 1530	FEDERAL EXPRESS			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	
					FedEx ABH 2383805115 SHIPPED to URI (ATTN. JOHN KING) for Analysis

Order No. 70440 (0693)

CHAIN OF CUSTODY RECORD

Brown & Root Environmental
661 Andersen Dr VII
Pittsburgh PA 15220 (412) 921-7090

UR1 # 041097-2

PROJECT NO.: 6515

SITE NAME: Portsmouth NSY

SAMPLERS (SIGNATURE): [illegible]

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8oz Glass TCL PAH Post/RB	8oz HDPE Metals TDC	Aug/Sem Grain Size				REMARKS
BC-1006	4/10/97	0800		✓	BC-1006-SD-0497	2	1	1					
BC-1012	↓	0815		✓	BC-1012-SD-0497	2	1	1					

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Terry Rogal	4/10/97 1530	FEDERAL EXPRESS			
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: FED. EX. AB# 2383805115 SHIPPED to LRI (ATTN. John King) For Analysis	

Order No. 70440 (0693)

SAMPLE LOG SHEETS

SEEP SAMPLE LOG SHEETS

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: SP-1001-SP-0497
Sample Location: SP-1001
Sampled By: ~~T Evans~~
C.O.C. No.: K#040897
URI #040897
J. Wakeman/
R. Bastow

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4/8/97 Time: 0630								
Depth: Method: Direct Fill	clear	7.22	19.8	4.7	0	11.75	1.13	215

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: ~ 1 gpm

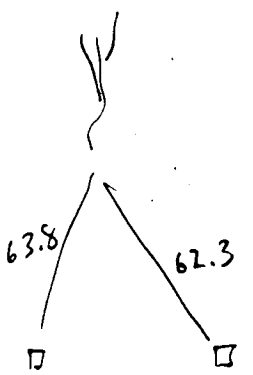
WIDTH: ~ 1'

DEPTH: 2"

BIOTA: mussels, algae, snails
periwinkles

LOW TIDE @ 0638

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

195@
1003

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: SP-1002-SP-0497
Sample Location: SP-1002
Sampled By: J. Wakeman / R. Bastow
C.O.C. No.: K#040897
URI #040897

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-8-97 Time: 0645 Depth: — Method: Direct Fill	clear	7.63	33.7	4.9	0	11.14	2.01	215

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: 1½ - 2 gpm

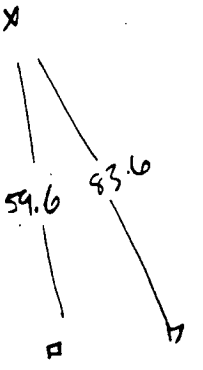
WIDTH: 8-10

DEPTH: < 1"

BIOTA: algae
barnacles
periwinkles
trace blue mussels

LOW TIDE @ 0638

MAP



Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Timothy S C

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: SP-1003 -SP-0497
Sample Location: SP-1003
Sampled By: JW/RB
C.O.C. No.: K#040897
URI #040897

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4/8/97								
Time: 0605								
Depth:								
Method: Direct fill	clear	6.87	1.34	5.8	0	10.98	0.05	195

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	
TOC	H2SO4	1 X 125mL AMBER	Katahdin	
BOD	NONE	1 X 1L HDPE	Katahdin	
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	
BROMIDE	NONE	1 X 1L HDPE	Katahdin	
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	

OBSERVATIONS / NOTES

FLOW RATE: 3-5 gpm

WIDTH: 18"

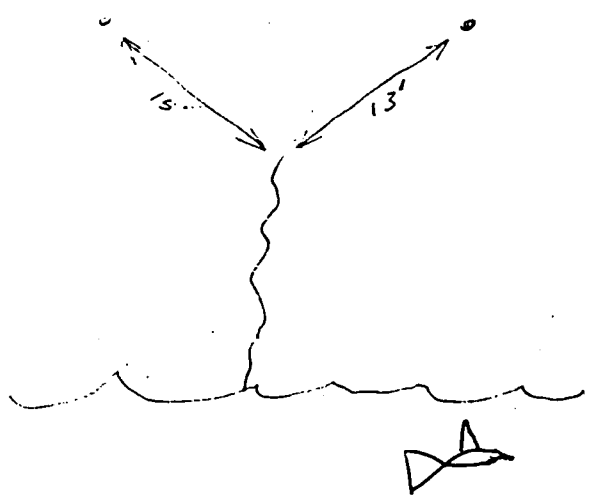
DEPTH: 3

BIOTA: algea, blue mussels periwinkles, barnacles

[SP-1003-SP-0497-F = Dissolved]

LOW TIDE @ 0638

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: CC 1004.3 ~~CC 1004.1~~ -SP-0497
Sample Location: CC / CC 4.3
Sampled By: JALKUT / KLJAHN / SNOLEK
C.O.C. No.: K#040897
URI #040897

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4/8/97 Time: 0635 Depth: 2 in below beach Method: Peristaltic Pump	SLIGHTLY CLOUDY	7.43	38.0	4.5	24	7.03	2.30	145

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: Minimal Flow from drive point - dug sm. trench + used peristaltic pump for sample collection

WIDTH: Pool width - 12 inches, narrows to 2 inches as it flows away from drive pt.

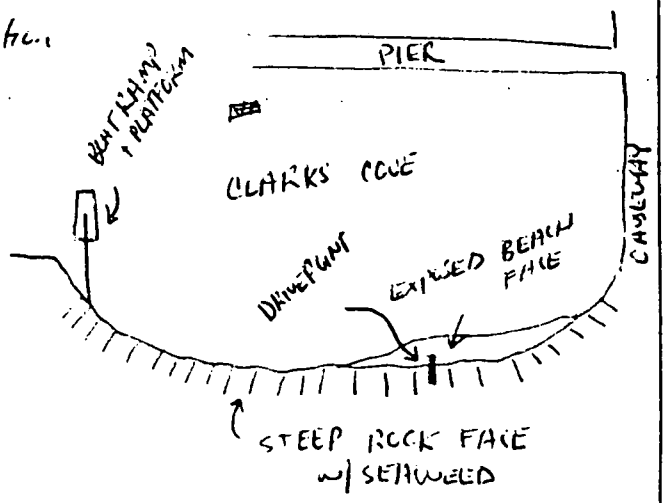
DEPTH: 2 inches

BIOTA: Mussels, periwinkles, razor clams, seaweed

Note - Not enough water coming out of drive point. Necessary to dig trench beneath drive point

LOW TIDE @ 0638 hrs

MAP



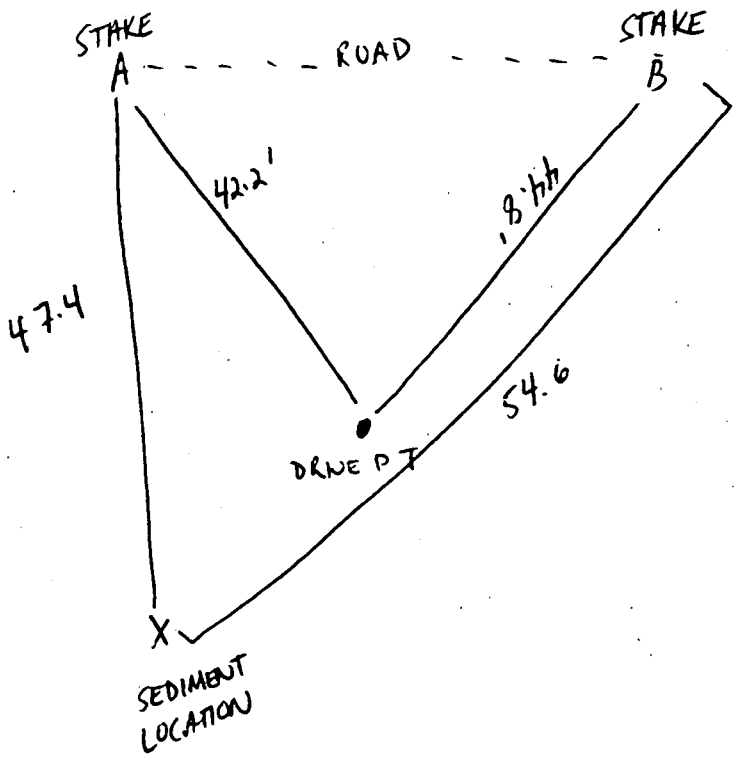
Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K Jalkut

PNSY 4-10-97 Low Tide Sep Sed Rnd 2 (KJ)
Measurements - Location 1004.7

pg 272



CLARKS COVE

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: CC 1014 -SP-0497
Sample Location: CC 1014
Sampled By: Rojahn / Jalkut / Snyder
C.O.C. No.: K#040897
VRI #040897

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 4-8-97 / Time: 0600	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Depth: ~~0600~~ 2in / Method: Direct Dip	clear	6.70	35.4	5.3	4	8.13	2.14	315

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	500ml ½ X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	500ml ½ X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: ~1 liter per minute

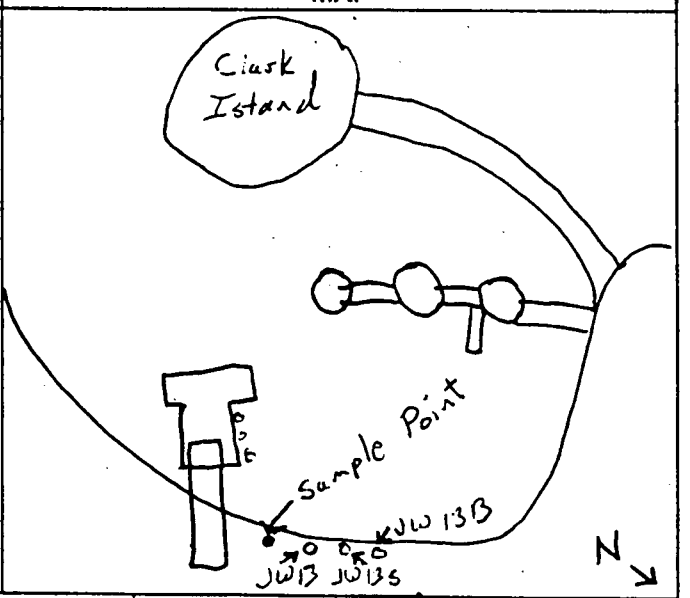
WIDTH: 2 inches wide

DEPTH: 2 inches

BIOTA: Mussels, periwinkles, seaweed

LOW TIDE @ 0638 hrs

MAP



Circle if Applicable:

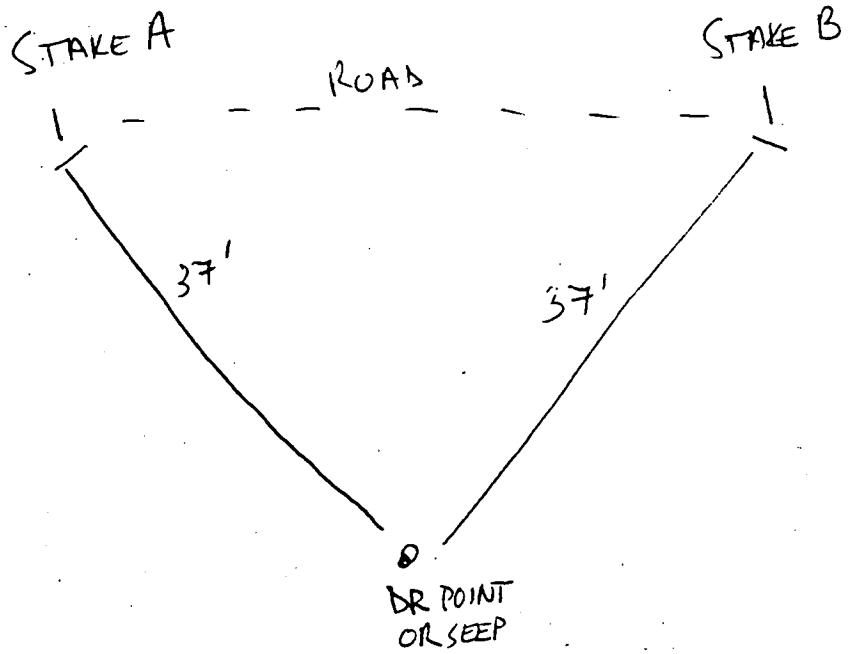
MS/MSD	Duplicate ID No.:

Signature(s): K Jalkut

PNSY 4-10-97 Low Tide Seep/Sed Rnd 8 (14)

pg 292

Measurements - Location 1004.4



NO SEDIMENT AT THIS LOCATION

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: CC-1004.5-SP-0497
Sample Location: CC-1004.5
Sampled By: TE, RB, JW
C.O.C. No.: VRI #040997
K #040997

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-9-97 Time: 0815 Depth: surface Method: peristaltic	Clear	8.03	18.5	2.5	0	10.85	1.02	240

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 500mL ~~1 X 1L HDPE~~	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 500mL ~~1 X 1L HDPE~~	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
* pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	X
* BROMIDE	NONE	1 X 1L HDPE	Katahdin	X
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE:

WIDTH: 50-60'

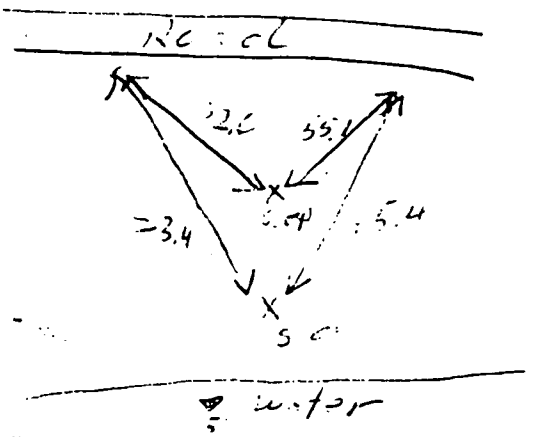
DEPTH: <2"

BIOTA: rock weed
barnacles
blue mussels

* Unable to collect due to rising tide

LOW TIDE @ 0728

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.: SPFD-040997 @ 0000 hrs

Signature(s): Timothy S. [illegible]

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: CC-1011 -SP-0497
Sample Location: CC-1011
Sampled By: TE / JW / RB
C.O.C. No.: URI # 040997
K # 040997

Type of Sample:
[4 Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-9-97 Time: 0729 Depth: surface Method: peristaltic	clear	7.40	33.8	1.4	0	15.46	1.97	240

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1x500ml ~~1 X 1L~~ HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1x500ml ~~1 X 1L~~ HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: ~~20-30~~ >400 ml/min

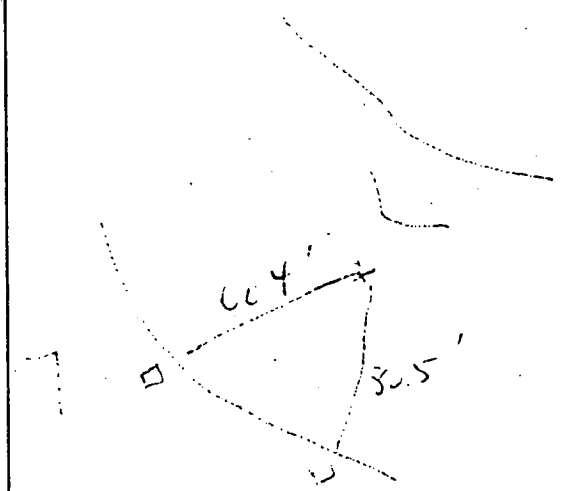
WIDTH: 20-30'

DEPTH: < 2"

BIOTA: rockweed
barnacles
blue mussels

LOW TIDE @ 0728

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: BC-1005 -SP-0497
Sample Location: BC-1005
Sampled By: JJ/KJ
C.O.C. No.: K#041097
URI #041097-1

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-10-17								
Time: 0748								
Depth: 3-4in	Clear	6.36	27.7	5	-3	10.12	1.30	245
Method: Direct Dip								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: 6 L/min (AVE) (1 min) * (From drive pt)

WIDTH: 8-10" below pipe to ~4' in front of pipe to water on tidal flat (~11' wide)

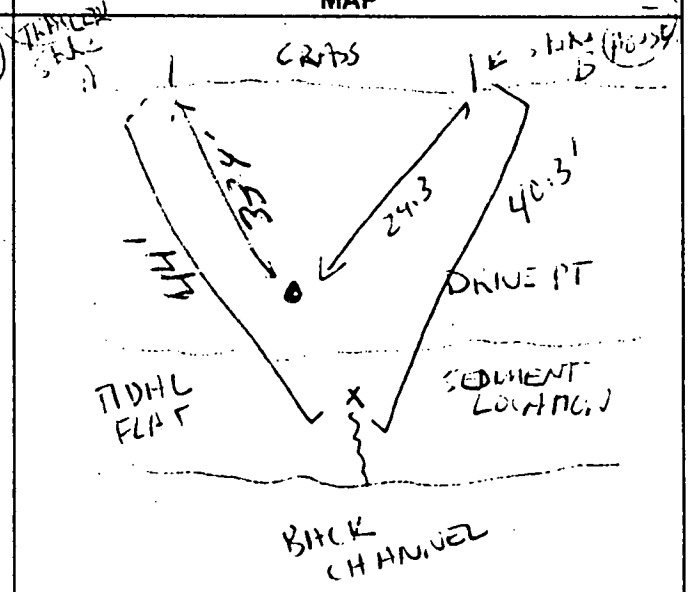
DEPTH: ↓ 3-4 inches below pipe

BIOTA: periwinkles, mussels (less on tidal flat), rockweed

* Flow rate in/through pipe likely to be slower than from seep through rock face

LOW TIDE @ 0818 hrs

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): KJ [illegible]

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: BC-1006 -SP-0497
Sample Location: BC-1006
Sampled By: T. Rojahn, C. Snyder
C.O.C. No.: K#041097
URI #041097-1

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 9/10/97	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Time: 07:40								
Depth: / Method:	Clear	6.61	9.61	6	0	3.55	.51	170

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: 3 gal per min (approx)

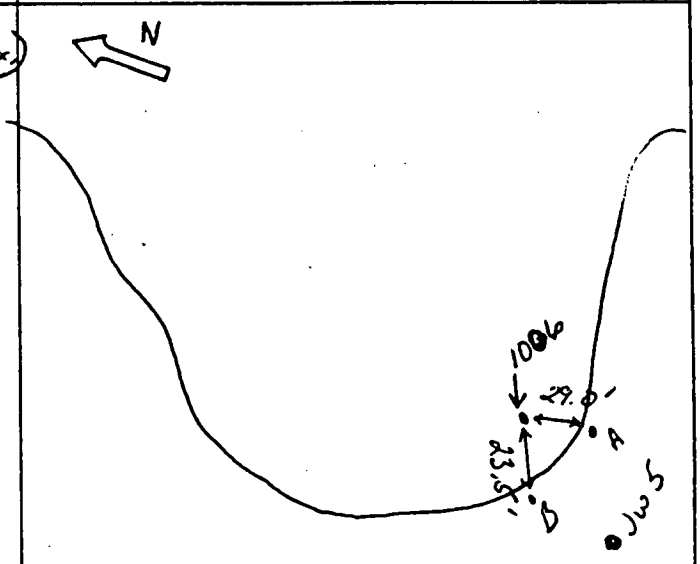
WIDTH:

DEPTH: 4"

BIOTA: Seaweed, clam + snail shells

LOW TIDE @ 08:18 AM

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	SPFD-041097 @ 0000 hrs

Signature(s):

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: PC-1012 -SP-0497
Sample Location: PC-1012
Sampled By: JW/KJ
C.O.C. No.: K#041097
URI #041097-1

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-10-97								
Time: 1825								
Depth:	clear	6.21	27.3	4.2	-4	9.22	1.60	65
Method:								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: Can't get a good measure from pipe. Seep around pipe moving faster than water through pipe

WIDTH: 6-8" to river's edge in tidal flat

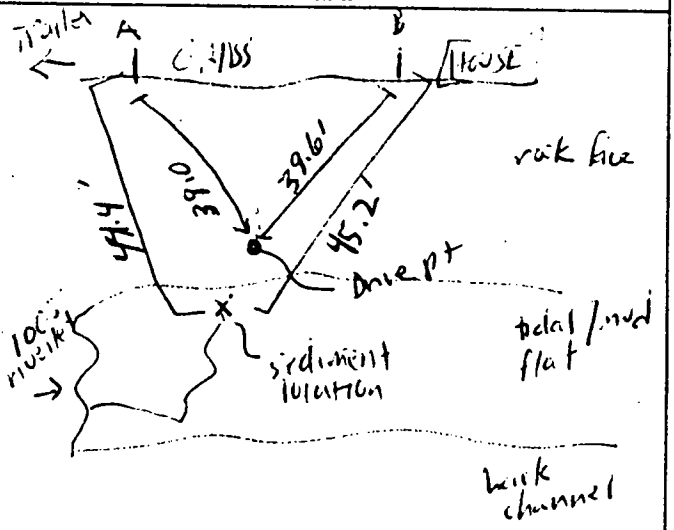
DEPTH: 1-2 in below pipe

BIOTA: Periwinkles, mussels, leaves, rockweed

Note: Pipe cap stained red (rust)

LOW TIDE @ 1818 hrs

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): KJ. Kent

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: BC-1016-SP-0497
Sample Location: BC-1016
Sampled By: DP/RB
C.O.C. No.: K# 041097
URI#041097-1

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-10-97								
Time: 0752								
Depth: -								
Method: Direct Fill	clear	7.36	24.8	5.1	0	11.32	1.45	215

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: from well point

WIDTH: 20'

DEPTH: < 2"

BIOTA: trace periwinkle

LOW TIDE @ 0818

MAP

See BC-1016-SD-0497 sample log sheet for map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: BC-1017 -SP-0497
Sample Location: BC-1017
Sampled By: KJ/TR/CS
C.O.C. No.: URI #040997
K #040997

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 7/15/97	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Time: 0735								
Depth: 1-2 inches	Clear	7.53	38.8	3.8	11.65	12.46	2.38	180
Method: Peristaltic Pump								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 x 500mL ~~X 1L~~ HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 500mL ~~X 1L~~ HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: ~1/2 l per minute - very slow out of drive point. Necessary to use peristaltic pump for sampling

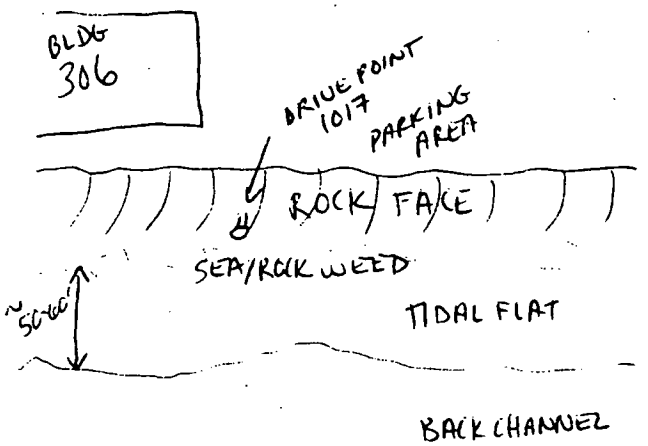
WIDTH: 5-6 inches down to 2 inches

DEPTH: 1-2 inches below drive point - water collected in a pool

BIOTA: Periwinkles, Mussels, Rockweed

LOW TIDE @ 0728 hrs

MAP



Circle if Applicable:

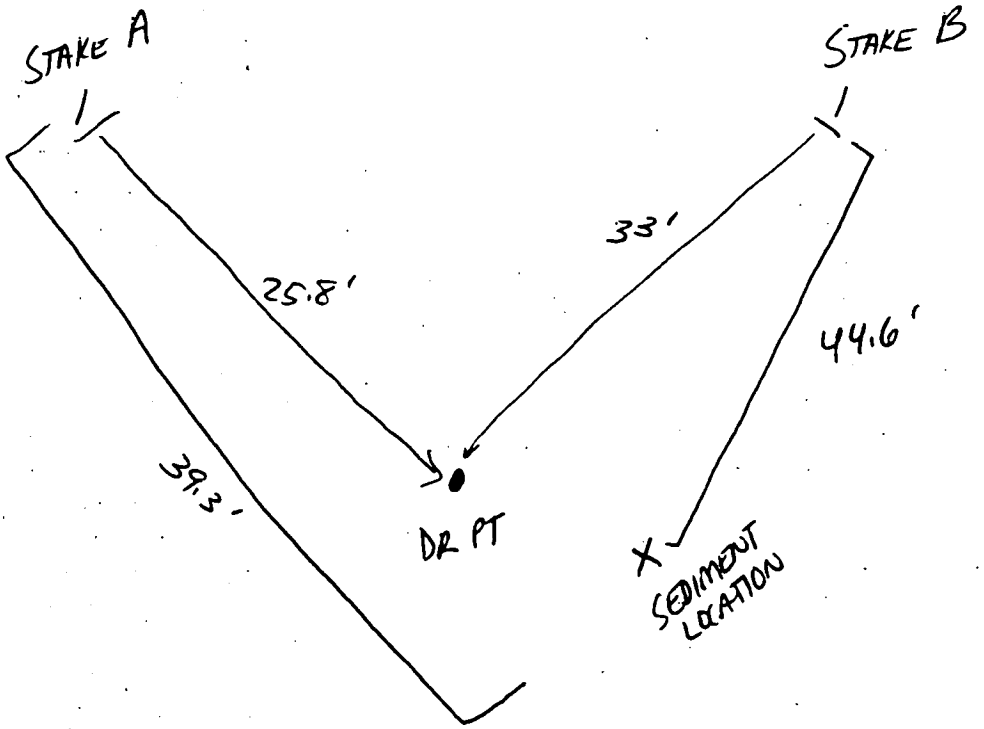
MS/MSD	Duplicate ID No.:

Signature(s): K Jackson

PNSY 4-10-97 Low Tide Seep/Sed Rnd 4 (B)

Measurements- Location 1017

pg 272



SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: BC-1018 -SP-0497
Sample Location: BC1018
Sampled By: T.L.
C.O.C. No.: URI # 040997
K # 040997

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-9-97 Time: 0630 Depth: Direct/Surface Method: Direct	Clear	7.78	37.3	5.9	0.35	18.54	2.28	240

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	3 ~~1~~ X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	3 500 mL ~~1~~ X ~~1L~~ HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	3 500 mL ~~1~~ X ~~1L~~ HDPE	URI	✓
TOC	H2SO4	3 ~~1~~ X 125mL AMBER	Katahdin	✓
BOD	NONE	3 ~~1~~ X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	3 ~~1~~ X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	3 ~~1~~ X 1L HDPE	Katahdin	✓
BROMIDE	NONE	3 ~~1~~ X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	3 ~~1~~ X 1L HDPE	Katahdin	✓
		(TL)		

OBSERVATIONS / NOTES

FLOW RATE:

WIDTH:

DEPTH:

BIOTA:

LOW TIDE @ 0728

MAP

Circle If Applicable:

MS/MSD X3

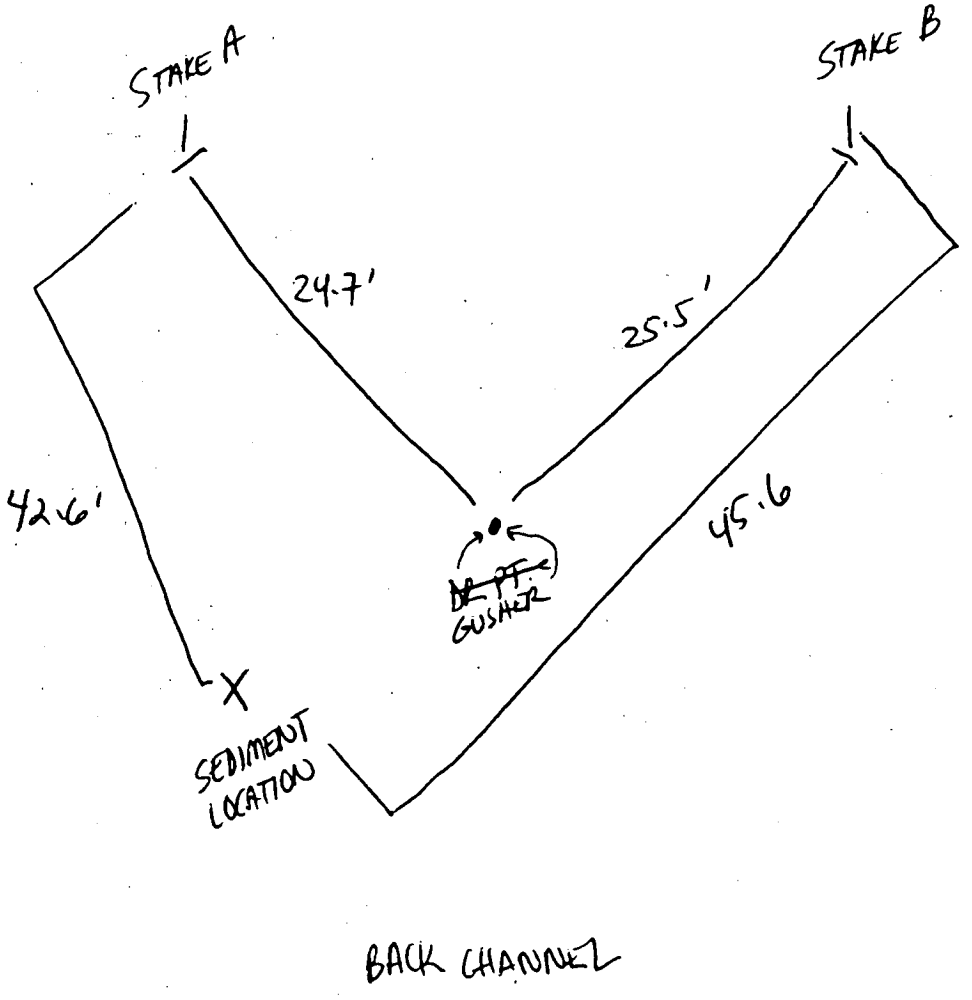
Duplicate ID No.:

Signature(s):

PNSY 4/10/97 Low Tide Seep/Sed Rnd 8 (KB)

pg 272

Measurements - Location 1018



SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[x] Other: SEEP
[ ] QA Sample Type:

Sample ID No.: BC-1020-SP-0497
Sample Location: BC-1020
Sampled By: KJ/CS
C.O.C. No.: URI # 040997
K # 040997

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4-9-17 Time: 0850 Depth: 3in Method: Direct Dip	clear	7.84	44.4	4.5	~~10~~ 4.0	16.38	2.72	250

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1x500mL ~~1 X 1L~~ HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1x500mL ~~1 X 1L~~ HDPE	URI	✓
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

FLOW RATE: ~4L/MIN

WIDTH: 12 INCHES BENEATH PIPE THEN SPREADS OUT TO 5' AND THEN 15' ON TIDAL FLAT

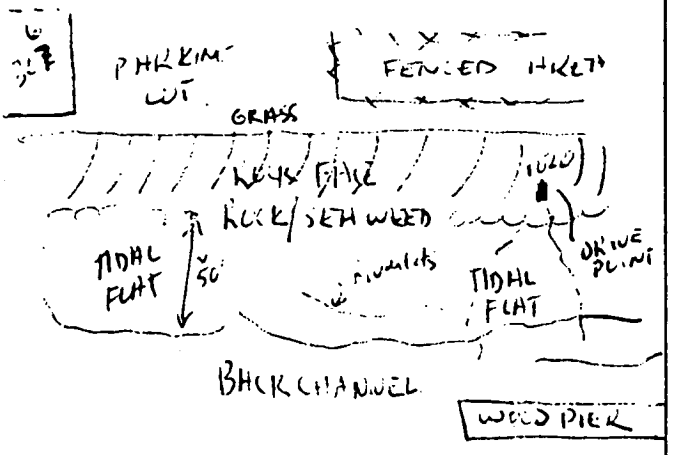
DEPTH: ~3 INCHES BENEATH DRIVE POINT

BIOTA: ROCKWEED, MUSSELS, PERIWINKLES KELP, CRABSHELLS

Note: Weather: Sunny, V. Windy Temp ~25°F

LOW TIDE @ 0728 hrs

MAP



Circle if Applicable:

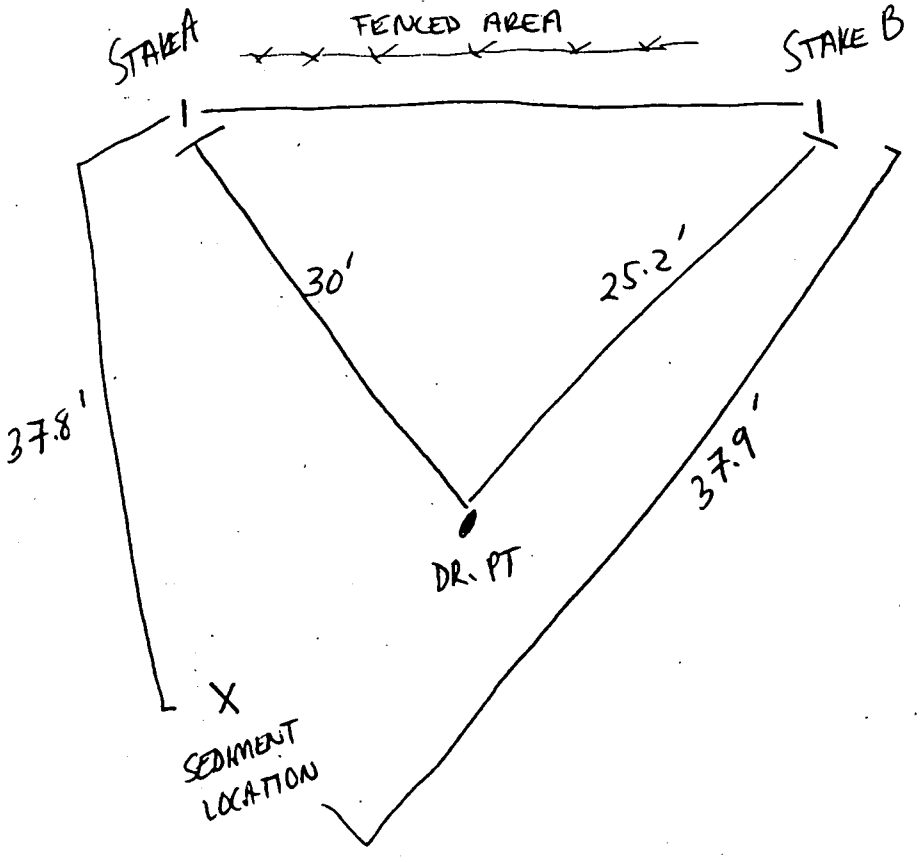
MS/MSD	Duplicate ID No.:

Signature(s): KJ [illegible]

PNSY 4/10/97 Low Tide Seep/Sed Rnd 2 (KJ)

pg 2 of 2

Measurements - Location 1020



BACK CHANNEL

SEDIMENT SAMPLE LOG SHEETS

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: SP-1001-SD-497
Sample Location: SP-1001
Sampled By: T. Evans
C.O.C. No.: RH040897
URI #041097-2

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-8-97			
Time: 0612	Surface	brown	Fgr Sand Tr Silt, shell, rock, trags
Method: S. Spoon			
Monitor Reading (ppm): —			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

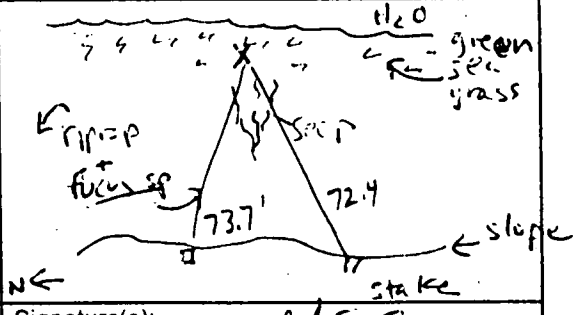
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. ~~GLASS~~ HDPE	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: periwinkles, barnacles
sea grass

LOW TIDE @ 0638

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	—

Signature(s): Tarell SE

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: SP-1002-SD-497
Sample Location: SP-1002
Sampled By:
C.O.C. No.: K#040897
URI #041097-2

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-8-97			
Time: 0633	surface	brown	F-mgr Sand, Shell
Method: S. Spoon			
Monitor Reading (ppm): —			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

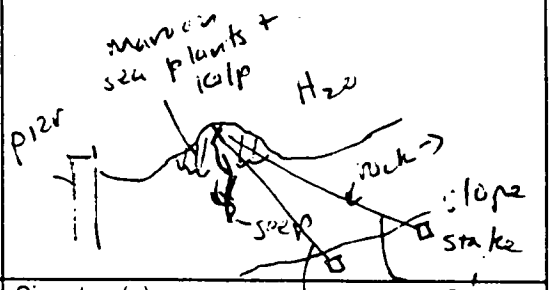
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: barnacles, periwinkles
abundant blue mussels

LOW TIDE @ 0638

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s): Timothy S.

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: SP-1003-SD-497
Sample Location: SP-1003
Sampled By: JW / RB
C.O.C. No.: ~~URI # 041097~~ ~~K# 040897~~ 4/10/97

Type of Sample:
[✓] Low Concentration K# 040897
[ ] High Concentration URI# 041097-2

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-8-97			
Time: 0600			
Method: S. Spoon			
Monitor Reading (ppm): —			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

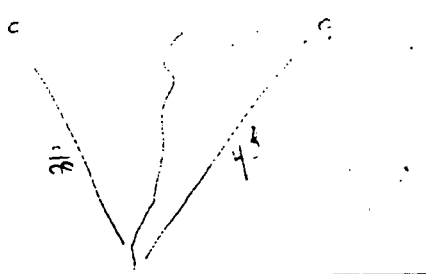
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: See SP-1003-SP-0497 log sheet

LOW TIDE @ 0638

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: CC1004.3 -SD-497
Sample Location: CC 1004.3
Sampled By: JACKOT/EVJOHN/SNYDER
C.O.C. No.: K#040897
VRI #041097-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-8-97			
Time: 0850	2-3 inches	Brown to black	Muck, Fine sand
Method: Vac SS spoon			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
~~4-8-97~~	~~0850~~			
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. ~~GLASS~~ HDPE	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

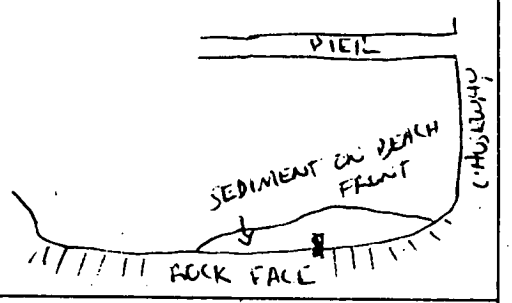
OBSERVATIONS / NOTES

BIOTA: Mussels, periwinkles on beach, razor clams

Note - Homogenized sediment in a stainless steel (SS) bowl

LOW TIDE @ 0638 hrs

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K Jackot

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: CC 1004A -SD-497
Sample Location:
Sampled By:
C.O.C. No.:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	

OBSERVATIONS / NOTES

BIOTA:

NO SEDIMENT AVAILABLE AT THIS LOCATION

LOW TIDE @

MAP

Circle If Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): K Jackert

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: CC-1004.5-SD-497
Sample Location: CC-1004.5
Sampled By: TE/JW/RB
C.O.C. No.: URI ~~#040997~~ K # 040997 041097-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-9-97			
Time: 0706		D Brown	Silt tr fgr sand
Method: S. spoon			
Monitor Reading (ppm): —			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

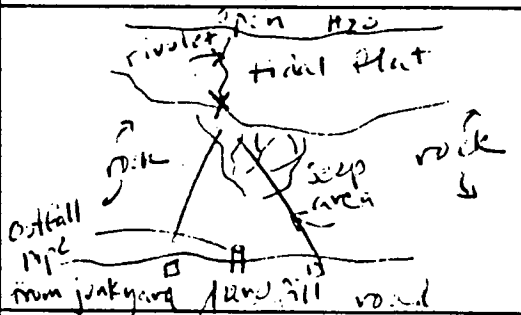
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. ~~GLASS~~ HDPE	URI	
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	

OBSERVATIONS / NOTES

BIOTA: blue mussels

LOW TIDE @ 0728

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	SDFD-040997 @ 0000 hrs

Signature(s):

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: CC-1011 -SD-0497
Sample Location: CC-1011
Sampled By: JW, RB, TE
C.O.C. No.: ~~URI #040497~~ K #040497 TE 4/10/97
041097-2

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-9-97			
Time: 0648	Surface	Black	Fgr sand & silt
Method: S. Spoon			
Monitor Reading (ppm): –			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):			NA	

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

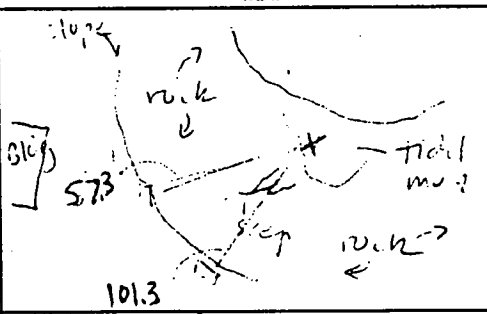
OBSERVATIONS / NOTES

BIOTA: rockweed
blue mussels, periwinkles

~~Organic~~ organic odor

LOW TIDE @ 0728

MAP



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Timothy S. [illegible]

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1005 -SD-0497
Sample Location: BC-1005
Sampled By: JN/KJ
C.O.C. No.: H# 041097
URI #041047-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-10-97			
Time: 0745	0-3 in	Brown/Black	Muck w/ organic debris (leaves + twigs)
Method: SS Spoon			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: periwinkles, mussels, rockweed

LOW TIDE @ 0818hrs

MAP

See SW logsheet

Circle If Applicable:

MS/MSD

Duplicate ID No.: —

Signature(s): K Jaikent

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1006-SD-0497
Sample Location: BC-1006
Sampled By: T. Rojohn, C. Snyder
C.O.C. No.: KH 041097
URI #041097-2

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4/10/97			
Time: 08:00	0-1'	Black	Organic Muck
Method: SS SPOON			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

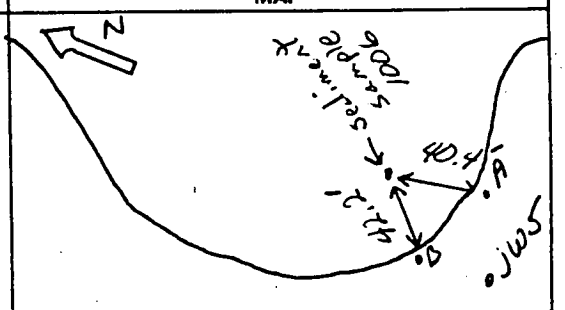
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: Seaweed, clam + snail shells

LOW TIDE @ 08:18

MAP



Circl If Applicable:

MS/MSD

Duplicate ID No.: SDFD-041097 @ 0000 hrs

Signature(s):

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1012 -SD-497
Sample Location: BC-1012
Sampled By: JW/KJ
C.O.C. No.: K#041097
URI #041097-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-10-97			
Time: 0815	3-4 IN	Brown / Black	Muck, organic debris - leaves, twigs
Method: SS SPOON			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: periwinkles, mussels, kelp, rockweed leaves

Note: Sediment homogenized in stainless steel bowl w/ stainless steel spoons (SS)

LOW TIDE @ 0818hrs

MAP

See SW logsheet

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K Jaikent

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1016 -SD-497
Sample Location: BC-1016
Sampled By: TE / RB
C.O.C. No.: ~~KH~~ 041097
URI #: 041097-2

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-10-97			
Time: 0745	0 - 4"	D Brown	Silt Tr fgr Sand
Method: S. Spoon			
Monitor Reading (ppm): –			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

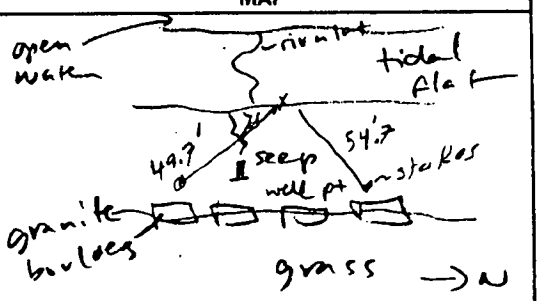
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	

OBSERVATIONS / NOTES

BIOTA: blue mussels
rock weed

LOW TIDE @ 0818

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s): Trust SL

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1017 -SD-0497
Sample Location: BC-1017
Sampled By: KJ/CS/TR
C.O.C. No.: URI #040497 K # 040997 TE #119
041097-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-9-97			
Time: 0740	2-3 inches	Brown to Black	Muck
Method: SS Spoon			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

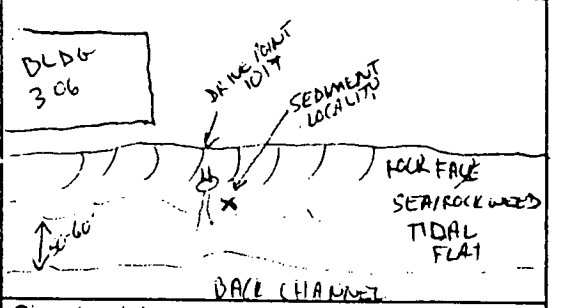
Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA: Mussels, Periwinkles, rockweed

LOW TIDE @ 0728 hrs

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K Jackert

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1018 -SD-0497
Sample Location: BC 1018
Sampled By: TR
C.O.C. No.: URI # ~~041097~~ K # 040997 TR 4/10/97
041097-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-9-97			
Time: 0715	0-4"	Black	Organic Muck
Method: S.S. Scoop			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:			NA	
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	2 ~~1~~ X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	2 ~~1~~ X 8 OZ. GLASS	URI	✓
CYANIDE, pH	2 ~~1~~ X 8 OZ. GLASS	Katahdin	✓

OBSERVATIONS / NOTES

BIOTA:

LOW TIDE @

MAP

Circle if Applicable:
MS/MSD X 2
Duplicate ID No.:

Signature(s): Terry Rozak

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: BC-1020-SD-0497
Sample Location: BC-1020
Sampled By: JS / KJ
C.O.C. No.: IRI # ~~041097~~ K#040997 TE 4/10/97
041097-2

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 4-1-97			
Time: 0655	2-3 inches	Brown to Black	Muck
Method: SS SPOON			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, GRAIN SIZE, AVS	1 X 8 OZ. GLASS	URI	✓
CYANIDE, pH	1 X 8 OZ. GLASS	Katahdin	✓

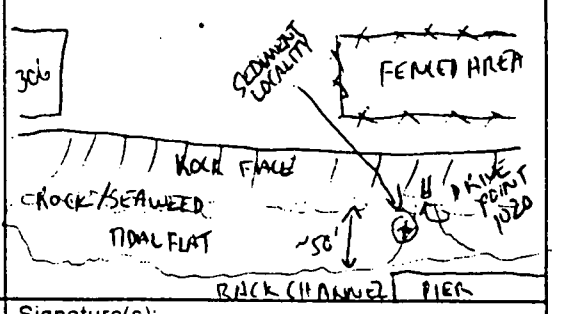
OBSERVATIONS / NOTES

BIOTA: Periwinkles, rockweed, mussels, kelp, crab shells

Note: Homogenized soil/sediment sample in a stainless steel bowl. Used stainless steel spoon to transfer material from bowl to sample container

LOW TIDE @ 0728 hrs

MAP



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): K Jackson

SEEP AND SEDIMENT QA/QC SAMPLE LOG SHEETS

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Stream
[ ] Spring
[ ] Pond
[ ] Lake
[X] Other: ~~SEEP~~
[X] QA Sample Type: Field Blank

Sample ID No.: SPFB-040897 ~~SP-0497~~
Sample Location:
Sampled By: K Jalkut / R Bastow
C.O.C. No.: ~~K #040897~~ URI # 040897

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

SAMPLING DATA

	Color	pH	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	Salinity %	Eh mV
Date: 4/8/97								
Time: 1035								
~~Depth~~:								
Method: Fill								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	CH2CL2	1 X 4L AMBER	URI	✓
TAL METALS (TOTAL)	HNO3	1 X 1L HDPE	URI	✓
TAL METALS (DISSOLVED)	HNO3	1 X 1L HDPE	URI	✗
TOC	H2SO4	1 X 125mL AMBER	Katahdin	✓
BOD	NONE	1 X 1L HDPE	Katahdin	✓
CYANIDE	NAOH	1 X 1L HDPE	Katahdin	✓
pH, ALKALINITY, Cl, SO4, NO3	NONE	1 X 1L HDPE	Katahdin	✓
BROMIDE	NONE	1 X 1L HDPE	Katahdin	✓
TDS, TSS	NONE	1 X 1L HDPE	Katahdin	✓

OBSERVATIONS / NOTES

~~FLOW RATE~~: HPLC H_2O

~~WIDTH~~: from URI-4L Hexane UV bottle

~~DEPTH~~:

~~BIOTA~~:

LOW TIDE @

MAP

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SOIL / SEDIMENT SAMPLE LOG SHEET

Project Site Name: PNS
Project No.: 6515

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[✓] QA Sample Type: Rinsate Blank

Sample ID No.: SDR13-040897 ~~SD-497~~
Sample Location:
Sampled By: K Jalkut / R. Barstow
C.O.C. No.: K# 040897
URI # 041097-2

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 04/08/97			
Time: 0958			
Method: Fill			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Lab	Collected
TCL PAHs & PESTICIDES/PCBs	1 X 8 OZ. GLASS	URI	✓
TAL METALS, TOC, ~~GRAIN SIZE~~, AVS	1 X 8 OZ. GLASS	URI	✓
~~CYANIDE, pH~~ TE	~~1 X 8 OZ. GLASS~~ TE	~~Katahdin~~	
Cyanide	1 x 1L HDPE / NaOH	Katahdin	✓

OBSERVATIONS / NOTES

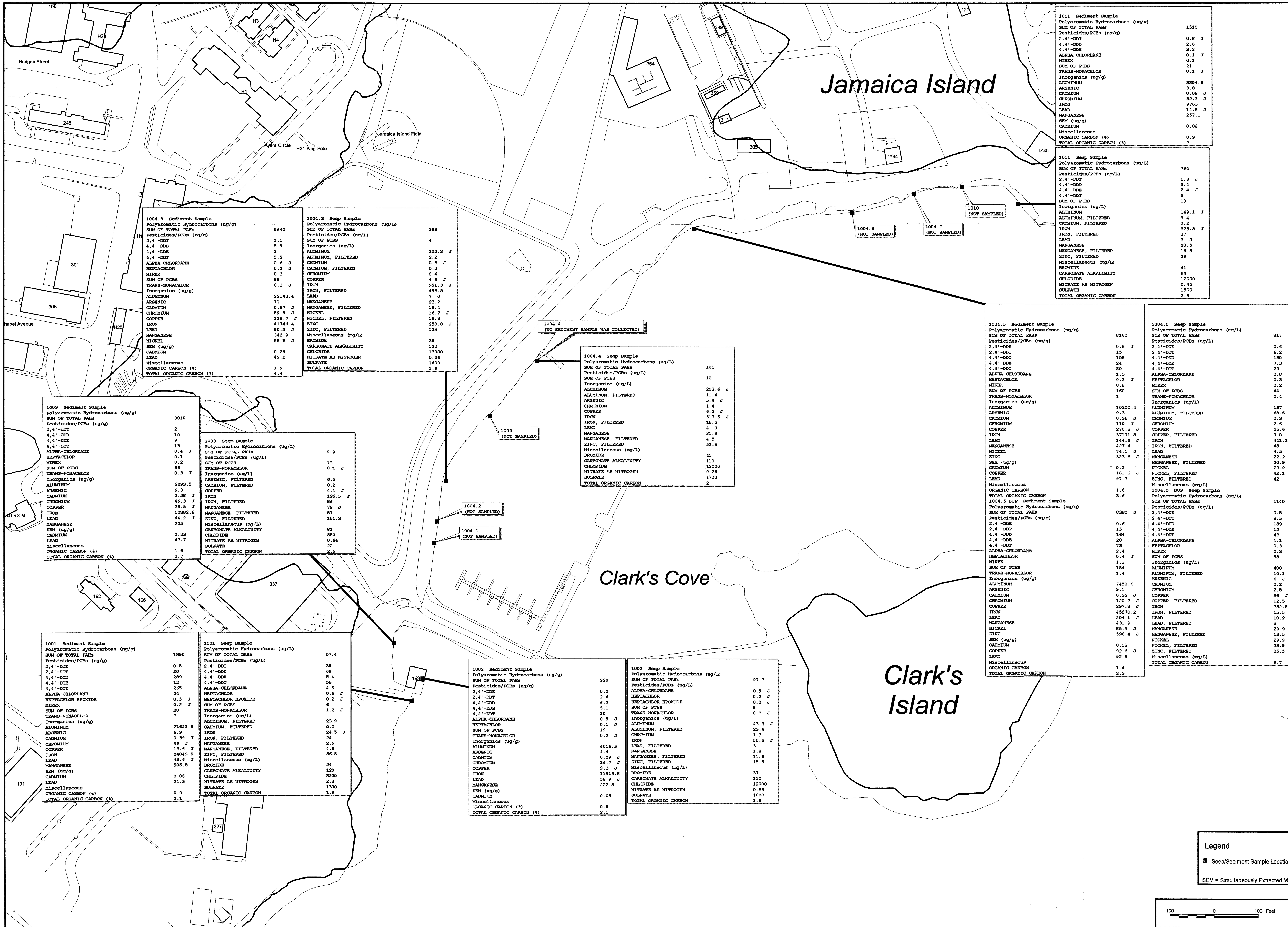
~~BIOTA:~~ HPLC H_2O over stainless spoon & bowl
↓ URI (foil shiny in) ↓ BRE
~~LOW~~ TIDE @

MAP

Circl If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):



1011 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	1510
Pesticides/PCBs (ng/g)	
2,4'-DDT	0.8 J
4,4'-DDD	2.6
4,4'-DDE	3.2
ALPHA-CHLORDANE	0.1 J
MIREX	0.1
SUM OF PCBS	21
TRANS-NONACHLOR	0.1 J
Inorganics (ug/g)	
ALUMINUM	3894.6
ARSENIC	3.8
CADMIUM	0.09 J
CHROMIUM	32.3 J
IRON	9763
LEAD	14.8 J
MANGANESE	257.1
SEM (ug/g)	
CADMIUM	0.08
Miscellaneous	
ORGANIC CARBON (%)	0.9
TOTAL ORGANIC CARBON (%)	2

1011 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	794
Pesticides/PCBs (ug/L)	
2,4'-DDT	1.3 J
4,4'-DDD	3.4
4,4'-DDE	2.4 J
4,4'-DDT	5
SUM OF PCBS	19
Inorganics (ug/L)	
ALUMINUM	149.1 J
ALUMINUM, FILTERED	8.4
CADMIUM, FILTERED	0.2
IRON	323.5 J
IRON, FILTERED	37
LEAD	3 J
MANGANESE	20.5
MANGANESE, FILTERED	16.8
ZINC, FILTERED	29
Miscellaneous (mg/L)	
BROMIDE	41
CARBONATE ALKALINITY	94
CHLORIDE	12000
NITRATE AS NITROGEN	0.45
SULFATE	1500
TOTAL ORGANIC CARBON	2.5

1004.3 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	5640
Pesticides/PCBs (ng/g)	
2,4'-DDT	1.1
4,4'-DDD	5.9
4,4'-DDE	3
4,4'-DDT	5.5
ALPHA-CHLORDANE	0.6 J
HEPTACHLOR	0.2 J
MIREX	0.3
SUM OF PCBS	88
TRANS-NONACHLOR	0.3 J
Inorganics (ug/g)	
ALUMINUM	22143.4
ARSENIC	11
CADMIUM	0.57 J
CHROMIUM	89.9 J
COPPER	126.7 J
IRON	41746.4
LEAD	90.3 J
MANGANESE	342.9
NICKEL	58.8 J
SEM (ug/g)	
CADMIUM	0.29
LEAD	49.2
Miscellaneous	
ORGANIC CARBON (%)	1.9
TOTAL ORGANIC CARBON (%)	4.4

1004.3 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	393
Pesticides/PCBs (ug/L)	
SUM OF PCBS	4
Inorganics (ug/L)	
ALUMINUM	202.3 J
ALUMINUM, FILTERED	2.2
CADMIUM	0.3 J
CADMIUM, FILTERED	0.2
CHROMIUM	2.4
COPPER	4.6 J
IRON	951.3 J
IRON, FILTERED	453.5
LEAD	7 J
MANGANESE	23.2
MANGANESE, FILTERED	19.4
NICKEL	16.7 J
NICKEL, FILTERED	16.8
ZINC	258.8 J
ZINC, FILTERED	125
Miscellaneous (mg/L)	
BROMIDE	38
CARBONATE ALKALINITY	130
CHLORIDE	13000
NITRATE AS NITROGEN	0.24
SULFATE	1600
TOTAL ORGANIC CARBON	1.9

1004.4 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	101
Pesticides/PCBs (ug/L)	
SUM OF PCBS	10
Inorganics (ug/L)	
ALUMINUM	203.6 J
ALUMINUM, FILTERED	11.4
ARSENIC	5.4 J
CHROMIUM	1.4
COPPER	6.2 J
IRON	517.5 J
IRON, FILTERED	15.5
LEAD	4 J
MANGANESE	21.3
MANGANESE, FILTERED	4.5
ZINC, FILTERED	52.5
Miscellaneous (mg/L)	
BROMIDE	41
CARBONATE ALKALINITY	110
CHLORIDE	13000
NITRATE AS NITROGEN	0.26
SULFATE	1700
TOTAL ORGANIC CARBON	2

1004.5 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	8160
Pesticides/PCBs (ng/g)	
2,4'-DDE	0.6 J
2,4'-DDT	15
4,4'-DDD	158
4,4'-DDE	24
4,4'-DDT	80
ALPHA-CHLORDANE	1.3
HEPTACHLOR	0.3 J
MIREX	0.8
SUM OF PCBS	160
TRANS-NONACHLOR	1
Inorganics (ug/g)	
ALUMINUM	10300.4
ARSENIC	9.3
CADMIUM	0.36 J
CHROMIUM	110 J
COPPER	270.3 J
IRON	37171.8
LEAD	144.6 J
MANGANESE	427.4
NICKEL	74.1 J
ZINC	323.6 J
SEM (ug/g)	
CADMIUM	0.2
COPPER	161.6 J
LEAD	91.7
Miscellaneous	
ORGANIC CARBON	1.6
TOTAL ORGANIC CARBON	3.6
1004.5 DUP Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	8380 J
Pesticides/PCBs (ng/g)	
2,4'-DDE	0.6
2,4'-DDT	15
4,4'-DDD	164
4,4'-DDE	20
4,4'-DDT	73
ALPHA-CHLORDANE	2.4
HEPTACHLOR	0.4 J
MIREX	1.1
SUM OF PCBS	154
TRANS-NONACHLOR	1.4
Inorganics (ug/g)	
ALUMINUM	7450.6
ARSENIC	9.1
CADMIUM	0.32 J
CHROMIUM	120.7 J
COPPER	297.8 J
IRON	45270.2
LEAD	204.1 J
MANGANESE	431.9
NICKEL	85.3 J
ZINC	596.4 J
SEM (ug/g)	
CADMIUM	0.18
COPPER	92.6 J
LEAD	92.8
Miscellaneous	
ORGANIC CARBON	1.4
TOTAL ORGANIC CARBON	3.3

1004.5 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	817
Pesticides/PCBs (ug/L)	
2,4'-DDE	0.6 J
2,4'-DDT	6.2
4,4'-DDD	130
4,4'-DDE	7.3
4,4'-DDT	29
ALPHA-CHLORDANE	0.8 J
HEPTACHLOR	0.3 J
MIREX	0.2 J
SUM OF PCBS	44
TRANS-NONACHLOR	0.4 J
Inorganics (ug/L)	
ALUMINUM	137 J
ALUMINUM, FILTERED	68.6
CADMIUM	0.3 J
CHROMIUM	2.6
COPPER	25.6 J
COPPER, FILTERED	9.8
IRON	441.3 J
IRON, FILTERED	48
LEAD	4.5 J
MANGANESE	22.2
MANGANESE, FILTERED	20.9
NICKEL	23.2 J
NICKEL, FILTERED	42.1
ZINC, FILTERED	42
Miscellaneous (mg/L)	
1004.5 DUP Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	1140
Pesticides/PCBs (ug/L)	
2,4'-DDE	0.8 J
2,4'-DDT	8.5
4,4'-DDD	189
4,4'-DDE	12
4,4'-DDT	43
ALPHA-CHLORDANE	1.1 J
HEPTACHLOR	0.3 J
MIREX	0.3 J
SUM OF PCBS	58
Inorganics (ug/L)	
ALUMINUM	408 J
ALUMINUM, FILTERED	10.1
ARSENIC	6 J
CADMIUM	0.2 J
CHROMIUM	2.8
COPPER	36 J
COPPER, FILTERED	12.5
IRON	732.5 J
IRON, FILTERED	15.5
LEAD	10.2 J
LEAD, FILTERED	3
MANGANESE	29.9
MANGANESE, FILTERED	13.5
NICKEL	29.9 J
NICKEL, FILTERED	23.9
ZINC, FILTERED	25.5
Miscellaneous (mg/L)	
TOTAL ORGANIC CARBON	6.7

1003 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	3010
Pesticides/PCBs (ng/g)	
2,4'-DDT	2
4,4'-DDD	10
4,4'-DDE	9
4,4'-DDT	13
ALPHA-CHLORDANE	0.4 J
HEPTACHLOR	0.1
MIREX	0.2
SUM OF PCBS	58
TRANS-NONACHLOR	0.3 J
Inorganics (ug/g)	
ALUMINUM	5293.5
ARSENIC	6.3
CADMIUM	0.28 J
CHROMIUM	46.3 J
COPPER	25.5 J
IRON	12882.6
LEAD	64.2 J
MANGANESE	205
SEM (ug/g)	
CADMIUM	0.23
LEAD	67.7
Miscellaneous	
ORGANIC CARBON (%)	1.6
TOTAL ORGANIC CARBON (%)	3.7

1003 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	219
Pesticides/PCBs (ug/L)	
SUM OF PCBS	13
TRANS-NONACHLOR	0.1 J
Inorganics (ug/L)	
ARSENIC, FILTERED	6.6
CADMIUM, FILTERED	0.2
COPPER	4.4 J
IRON	196.5 J
IRON, FILTERED	86
MANGANESE	79 J
MANGANESE, FILTERED	81
ZINC, FILTERED	151.3
Miscellaneous (mg/L)	
CARBONATE ALKALINITY	81
CHLORIDE	580
NITRATE AS NITROGEN	0.64
SULFATE	22
TOTAL ORGANIC CARBON	2.5

1001 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	1890
Pesticides/PCBs (ng/g)	
2,4'-DDE	0.5
2,4'-DDT	20
4,4'-DDD	289
4,4'-DDE	12
4,4'-DDT	265
ALPHA-CHLORDANE	24
HEPTACHLOR EPOXIDE	0.5 J
MIREX	0.2 J
SUM OF PCBS	20
TRANS-NONACHLOR	7
Inorganics (ug/g)	
ALUMINUM	21623.8
ARSENIC	6.9
CADMIUM	0.39 J
CHROMIUM	49 J
COPPER	13.6 J
IRON	24849.9
LEAD	43.6 J
MANGANESE	505.8
SEM (ug/g)	
CADMIUM	0.06
LEAD	21.3
Miscellaneous	
ORGANIC CARBON (%)	0.9
TOTAL ORGANIC CARBON (%)	2.1

1001 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	57.4
Pesticides/PCBs (ug/L)	
2,4'-DDT	39
4,4'-DDD	69
4,4'-DDE	5.4
4,4'-DDT	55
ALPHA-CHLORDANE	4.8
HEPTACHLOR	0.6 J
HEPTACHLOR EPOXIDE	0.2 J
SUM OF PCBS	6
TRANS-NONACHLOR	1.2 J
Inorganics (ug/L)	
ALUMINUM, FILTERED	23.9
CADMIUM, FILTERED	0.2
IRON	24.5 J
IRON, FILTERED	24
MANGANESE	2.5
MANGANESE, FILTERED	4.6
ZINC, FILTERED	56.5
Miscellaneous (mg/L)	
BROMIDE	24
CARBONATE ALKALINITY	120
CHLORIDE	8200
NITRATE AS NITROGEN	2.3
SULFATE	1300
TOTAL ORGANIC CARBON	1.9

1002 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	920
Pesticides/PCBs (ng/g)	
2,4'-DDE	0.2
2,4'-DDT	2.6
4,4'-DDD	6.3
4,4'-DDE	5.1
4,4'-DDT	10
ALPHA-CHLORDANE	0.5 J
HEPTACHLOR	0.1 J
SUM OF PCBS	19
TRANS-NONACHLOR	0.2 J
Inorganics (ug/g)	
ALUMINUM	6015.5
ARSENIC	4.4
CADMIUM	0.09 J
CHROMIUM	36.7 J
COPPER	9.3 J
IRON	11916.8
LEAD	58.9 J
MANGANESE	222.5
SEM (ug/g)	
CADMIUM	0.05
Miscellaneous	
ORGANIC CARBON (%)	0.9
TOTAL ORGANIC CARBON (%)	2.1

1002 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	27.7
Pesticides/PCBs (ug/L)	
ALPHA-CHLORDANE	0.9 J
HEPTACHLOR	0.2 J
HEPTACHLOR EPOXIDE	0.2 J
SUM OF PCBS	8
TRANS-NONACHLOR	0.3 J
Inorganics (ug/L)	
ALUMINUM	43.3 J
ALUMINUM, FILTERED	23.4
CHROMIUM	1.3
IRON	55.5 J
LEAD, FILTERED	3
MANGANESE	1.8
MANGANESE, FILTERED	11.8
ZINC, FILTERED	15.5
Miscellaneous (mg/L)	
BROMIDE	37
CARBONATE ALKALINITY	110
CHLORIDE	12000
NITRATE AS NITROGEN	0.88
SULFATE	1600
TOTAL ORGANIC CARBON	1.5

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
PHILADELPHIA, PA
NORTHERN DIVISION
POSITIVE DETECTIONS IN SEEP/SEDIMENT SAMPLES - ROUND 8
CLARK'S COVE AREA (OU3)
PORTSMOUTH NAVAL SHIPYARD
KITTERY MAINE

SCALE: AS SHOWN
SIZE: D
PLATE 1

00045708.01X

Back Channel

1016 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	6250
Pesticides/PCBs (ng/g)	
2,4'-DDT	11
4,4'-DDD	99
4,4'-DDE	8.5
4,4'-DDT	17
ALPHA-CHLORDANE	1.5
HEXACHLOROBENZENE	1.3
MIREX	2.6
SUM OF PCBS	331
TRANS-NONACHLOR	0.3 J
Inorganics (ug/g)	
ALUMINUM	20920
ARSENIC	11.3
CADMIUM	0.46 J
CHROMIUM	81.6 J
COPPER	452 J
IRON	30240.6
LEAD	135 J
MANGANESE	381.2
MERCURY	0.808 J
NICKEL	86.3 J
SILVER	0.36 J
SEM (ug/g)	
CADMIUM	0.29
COPPER	272.1 J
LEAD	121
Miscellaneous	
ORGANIC CARBON (%)	3.2
TOTAL ORGANIC CARBON (%)	7.5

1016 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	7.1
Pesticides/PCBs (ug/L)	
HEPTACHLOR	0.1 J
HEPTACHLOR EPOXIDE	0.1 J
SUM OF PCBS	6
Inorganics (ug/L)	
ALUMINUM	90.2 J
ALUMINUM, FILTERED	41.8
CADMIUM	0.2 J
CHROMIUM	1.7
COPPER	13.8 J
COPPER, FILTERED	13.3
IRON	773.8 J
IRON, FILTERED	645
LEAD	3.2 J
MANGANESE	6
MANGANESE, FILTERED	7.5
NICKEL	9.4 J
NICKEL, FILTERED	12
ZINC, FILTERED	105
Miscellaneous (mg/L)	
BROMIDE	46
CARBONATE ALKALINITY	95
CHLORIDE	14000
NITRATE AS NITROGEN	0.26
SULFATE	1900
TOTAL ORGANIC CARBON	1.8

1012 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	13300
Pesticides/PCBs (ng/g)	
2,4'-DDT	2
4,4'-DDD	6.7
4,4'-DDE	7.1
4,4'-DDT	9
ALPHA-CHLORDANE	0.5 J
HEPTACHLOR	0.4 J
MIREX	0.1
SUM OF PCBS	40
TRANS-NONACHLOR	0.3 J
Inorganics (ug/g)	
ALUMINUM	12650.9
ARSENIC	6.9
CADMIUM	0.48 J
CHROMIUM	48.8 J
COPPER	30 J
IRON	16154.1
LEAD	62.8 J
MANGANESE	244.8
SEM (ug/g)	
CADMIUM	0.4
LEAD	53.8
Miscellaneous	
ORGANIC CARBON (%)	3.3
TOTAL ORGANIC CARBON (%)	7.6

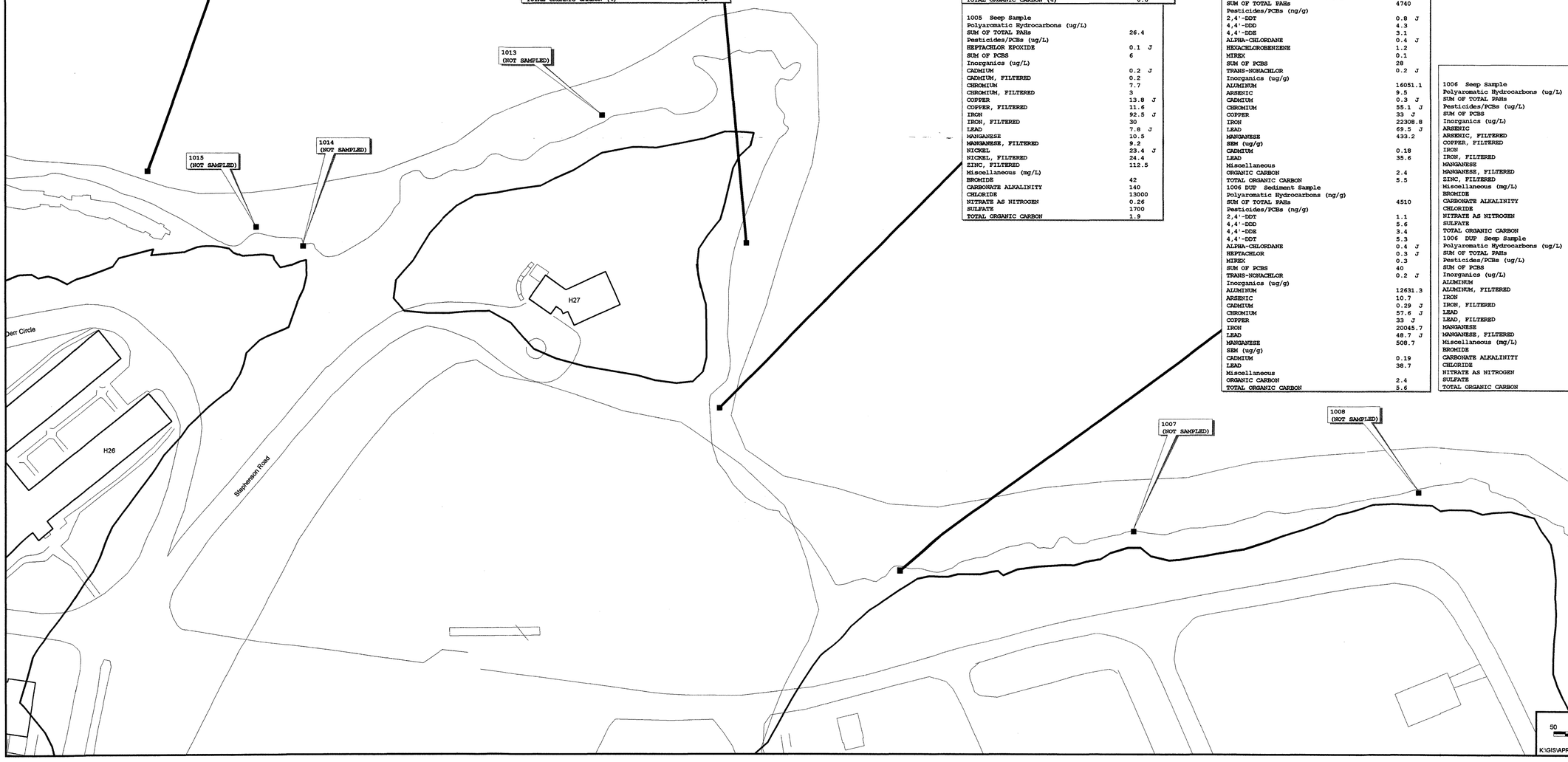
1012 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	20.7
Pesticides/PCBs (ug/L)	
HEPTACHLOR EPOXIDE	0.1 J
SUM OF PCBS	7
Inorganics (ug/L)	
ALUMINUM, FILTERED	19.6
CADMIUM	0.2 J
CADMIUM, FILTERED	0.2
CHROMIUM	6.5
COPPER	3.4 J
COPPER, FILTERED	3.4
IRON	3130 J
IRON, FILTERED	3610
MANGANESE	23.2
MANGANESE, FILTERED	28.2
ZINC, FILTERED	151.3
Miscellaneous (mg/L)	
BROMIDE	54
CARBONATE ALKALINITY	98
CHLORIDE	15000
NITRATE AS NITROGEN	0.18
SULFATE	2300
TOTAL ORGANIC CARBON	1.3

1005 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	9180
Pesticides/PCBs (ng/g)	
2,4'-DDT	8.5
4,4'-DDD	16
4,4'-DDE	14
4,4'-DDT	67
ALPHA-CHLORDANE	1.2
HEPTACHLOR	0.1 J
MIREX	0.3
SUM OF PCBS	72
TRANS-NONACHLOR	0.8
Inorganics (ug/g)	
ALUMINUM	16453
ARSENIC	9.7
CADMIUM	0.74 J
CHROMIUM	80.8 J
COPPER	216.3 J
IRON	21356.8
LEAD	855 J
MANGANESE	363.8
MERCURY	1.203 J
SILVER	0.15 J
SEM (ug/g)	
CADMIUM	0.35
COPPER	132.7 J
LEAD	702
Miscellaneous	
ORGANIC CARBON (%)	2.8
TOTAL ORGANIC CARBON (%)	6.6

1005 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	26.4
Pesticides/PCBs (ug/L)	
HEPTACHLOR EPOXIDE	0.1 J
SUM OF PCBS	6
Inorganics (ug/L)	
CADMIUM	0.2 J
CADMIUM, FILTERED	0.2
CHROMIUM	7.7
CHROMIUM, FILTERED	3
COPPER	13.8 J
COPPER, FILTERED	11.6
IRON	92.5 J
IRON, FILTERED	30
LEAD	7.8 J
MANGANESE	10.5
MANGANESE, FILTERED	9.2
NICKEL	23.4 J
NICKEL, FILTERED	24.4
ZINC, FILTERED	112.5
Miscellaneous (mg/L)	
BROMIDE	42
CARBONATE ALKALINITY	140
CHLORIDE	13000
NITRATE AS NITROGEN	0.26
SULFATE	1700
TOTAL ORGANIC CARBON	1.9

1006 Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	4740
Pesticides/PCBs (ng/g)	
2,4'-DDT	0.8 J
4,4'-DDD	4.3
4,4'-DDE	3.1
ALPHA-CHLORDANE	0.4 J
HEXACHLOROBENZENE	1.2
MIREX	0.1
SUM OF PCBS	28
TRANS-NONACHLOR	0.2 J
Inorganics (ug/g)	
ALUMINUM	16051.1
ARSENIC	9.5
CADMIUM	0.3 J
CHROMIUM	55.1 J
COPPER	33 J
IRON	22308.8
LEAD	69.5 J
MANGANESE	433.2
SEM (ug/g)	
CADMIUM	0.18
LEAD	35.6
Miscellaneous	
ORGANIC CARBON	2.4
TOTAL ORGANIC CARBON	5.5
1006 DUP Sediment Sample	
Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	4510
Pesticides/PCBs (ng/g)	
2,4'-DDT	1.1
4,4'-DDD	5.6
4,4'-DDE	3.4
4,4'-DDT	5.3
ALPHA-CHLORDANE	0.4 J
HEPTACHLOR	0.3 J
MIREX	0.3
SUM OF PCBS	40
TRANS-NONACHLOR	0.2 J
Inorganics (ug/g)	
ALUMINUM	12631.3
ARSENIC	10.7
CADMIUM	0.29 J
CHROMIUM	57.6 J
COPPER	33 J
IRON	20045.7
LEAD	48.7 J
MANGANESE	508.7
SEM (ug/g)	
CADMIUM	0.19
LEAD	38.7
Miscellaneous	
ORGANIC CARBON	2.4
TOTAL ORGANIC CARBON	5.6

1006 Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	398
Pesticides/PCBs (ug/L)	
SUM OF PCBS	8
Inorganics (ug/L)	
ARSENIC	7.6 J
ARSENIC, FILTERED	5
COPPER, FILTERED	2.5
IRON	298 J
IRON, FILTERED	209
MANGANESE	176
MANGANESE, FILTERED	166
ZINC, FILTERED	53
Miscellaneous (mg/L)	
BROMIDE	16
CARBONATE ALKALINITY	180
CHLORIDE	5200
NITRATE AS NITROGEN	0.1
SULFATE	720
TOTAL ORGANIC CARBON	3.8
1006 DUP Seep Sample	
Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	395
Pesticides/PCBs (ug/L)	
SUM OF PCBS	11
Inorganics (ug/L)	
ALUMINUM	92 J
ALUMINUM, FILTERED	6
IRON	354 J
IRON, FILTERED	241.5
LEAD	3.9 J
LEAD, FILTERED	4.1
MANGANESE	162
MANGANESE, FILTERED	158
Miscellaneous (mg/L)	
BROMIDE	22
CARBONATE ALKALINITY	170
CHLORIDE	5200
NITRATE AS NITROGEN	0.1
SULFATE	760
TOTAL ORGANIC CARBON	3.7



K:\GIS\APR\6515.APR 20/August/97 MJJ Seep/Sediment Back Channel Layout

N

Brown & Root Environmental

DSGN: DR: M. CONET / J.PREP CHK: MJM
SUPV: CH ENG: Mark K. Thomas 8/20/97
SUBMITTED BY: (FEDERAL ENGINEER) (TITLE) (DATE)
NORTHDIV MO: PWD: DIR: FFE:
OFFICER IN CHARGE
APPROVED DATE

REV	DESCRIPTION	PREP BY	DATE	APPRVD

NAVAL FACILITIES ENGINEERING COMMAND
PHILADELPHIA, PA

DEPARTMENT OF THE NAVY
NAVAL BASE

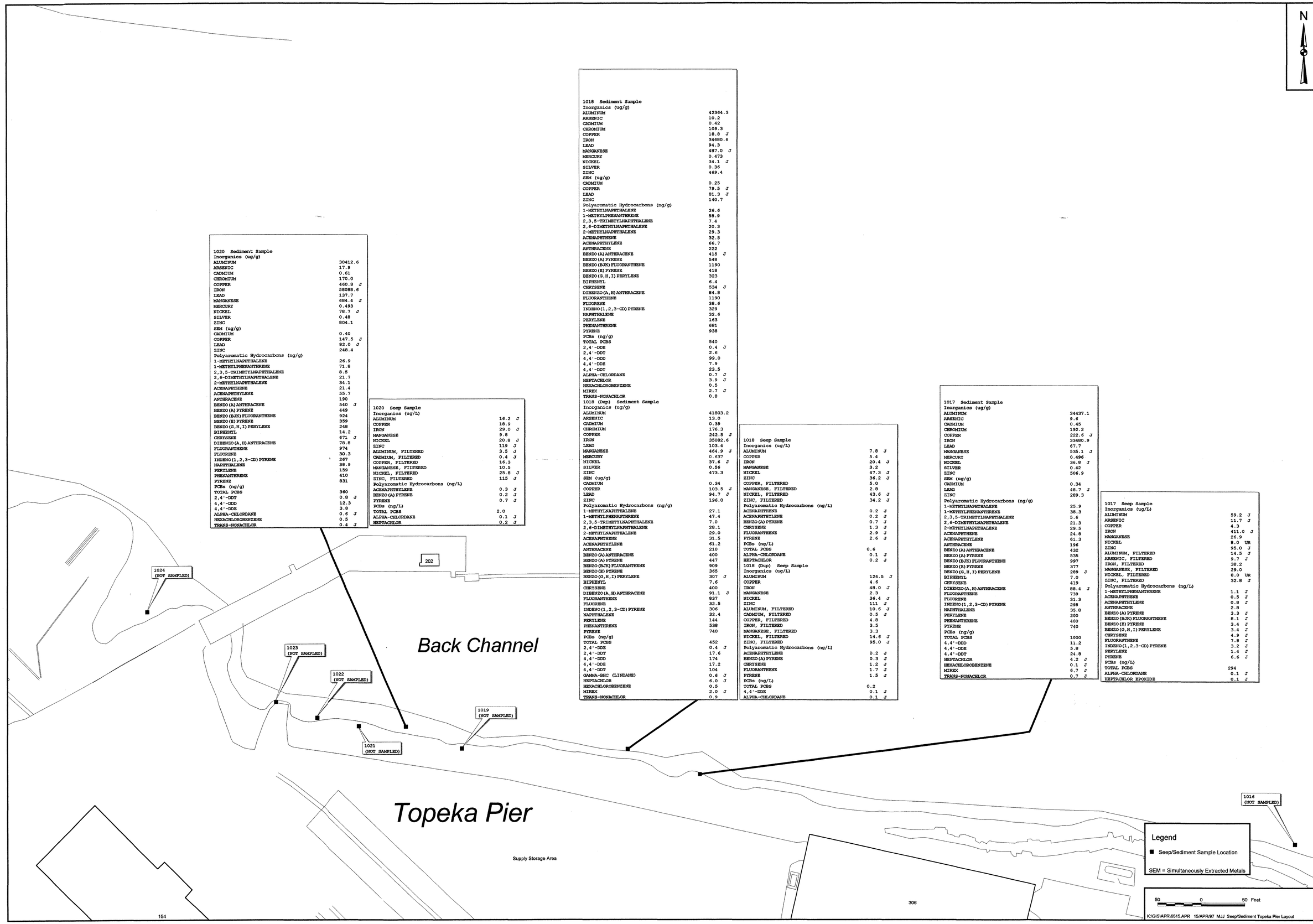
NORTHERN DIVISION

POSITIVE DETECTIONS IN SEEP/SEDIMENT SAMPLES - ROUND 8
JILF BACKCHANNEL (OU3)
PORTSMOUTH NAVAL SHIPYARD
KITTERY MAINE

NORTHDIV FOR COMMANDER,NAVFAC
DATE
APPROVED

SEAL AREA

SAT TO DATE
CODE I.D. NO. 80091
SCALE: AS SHOWN
SPEC. NO.
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET – OF –
SIZE: D DIS. SH. NO. PLATE 2



1020 Sediment Sample	
Inorganics (ug/g)	
ALUMINUM	30412.6
ARSENIC	17.9
CADMIUM	0.61
CHROMIUM	170.0
COPPER	460.8 J
IRON	58088.6
LEAD	137.7
MANGANESE	684.4 J
MERCURY	0.493
NICKEL	78.7 J
SILVER	0.48
ZINC	804.1
SEM (ug/g)	
CADMIUM	0.40
COPPER	147.5 J
LEAD	82.0 J
ZINC	248.4
Polyaromatic Hydrocarbons (ng/g)	
1-METHYLNAPHTHALENE	26.9
1-METHYLPHENANTHRENE	71.8
2,3,5-TRIMETYLNAPHTHALENE	8.5
2,6-DIMETHYLNAPHTHALENE	21.7
2-METHYLNAPHTHALENE	34.1
ACENAPHTHENE	21.4
ACENAPHTHYLENE	55.7
ANTHRACENE	190
BENZO(A)ANTHRACENE	540 J
BENZO(A)PYRENE	449
BENZO(B,K)FLUORANTHENE	924
BENZO(E)PYRENE	359
BENZO(G,H,I)PERYLENE	248
BIPHENYL	14.2
CHRYSENE	671 J
DIBENZO(A,H)ANTHRACENE	78.8
FLUORANTHENE	974
FLUORENE	30.3
INDENO(1,2,3-CD)PYRENE	267
NAPHTHALENE	38.9
PERYLENE	159
PHENANTHRENE	410
PYRENE	831
PCBs (ng/g)	
TOTAL PCBS	360
2,4'-DDT	0.8 J
4,4'-DDD	12.3
4,4'-DDE	3.8
ALPHA-CHLORDANE	0.6 J
HEXACHLOROBENZENE	0.5
TRANS-NONACHLOR	0.4 J

1020 Seep Sample	
Inorganics (ug/L)	
ALUMINUM	16.2 J
COPPER	18.9
IRON	29.0 J
MANGANESE	9.8
NICKEL	20.8 J
ZINC	119 J
ALUMINUM, FILTERED	3.5 J
CADMIUM, FILTERED	0.4 J
COPPER, FILTERED	16.3
MANGANESE, FILTERED	10.5
NICKEL, FILTERED	25.8 J
ZINC, FILTERED	115 J
Polyaromatic Hydrocarbons (ng/L)	
ACENAPHTHYLENE	0.3 J
BENZO(A)PYRENE	0.2 J
PYRENE	0.7 J
PCBs (ng/L)	
TOTAL PCBS	2.0
ALPHA-CHLORDANE	0.1 J
HEPTACHLOR	0.2 J

1018 Sediment Sample	
Inorganics (ug/g)	
ALUMINUM	42364.3
ARSENIC	10.2
CADMIUM	0.42
CHROMIUM	109.3
COPPER	18.8 J
IRON	34680.6
LEAD	94.3
MANGANESE	487.0 J
MERCURY	0.473
NICKEL	34.1 J
SILVER	0.36
ZINC	469.4
SEM (ug/g)	
CADMIUM	0.25
COPPER	79.5 J
LEAD	81.3 J
ZINC	140.7
Polyaromatic Hydrocarbons (ng/g)	
1-METHYLNAPHTHALENE	26.6
1-METHYLPHENANTHRENE	58.9
2,3,5-TRIMETYLNAPHTHALENE	7.4
2,6-DIMETHYLNAPHTHALENE	20.3
2-METHYLNAPHTHALENE	29.3
ACENAPHTHENE	32.5
ACENAPHTHYLENE	66.7
ANTHRACENE	222
BENZO(A)ANTHRACENE	415 J
BENZO(A)PYRENE	548
BENZO(B,K)FLUORANTHENE	1190
BENZO(E)PYRENE	418
BENZO(G,H,I)PERYLENE	323
BIPHENYL	6.4
CHRYSENE	534 J
DIBENZO(A,H)ANTHRACENE	84.8
FLUORANTHENE	1190
FLUORENE	38.6
INDENO(1,2,3-CD)PYRENE	329
NAPHTHALENE	32.6
PERYLENE	163
PHENANTHRENE	681
PYRENE	938
PCBs (ng/g)	
TOTAL PCBS	540
2,4'-DDE	0.4 J
2,4'-DDT	2.6
4,4'-DDD	99.0
4,4'-DDE	7.9
4,4'-DDT	23.5
ALPHA-CHLORDANE	0.7 J
HEPTACHLOR	3.9 J
HEXACHLOROBENZENE	0.5
MIREX	2.7 J
TRANS-NONACHLOR	0.8

1018 (Dup) Sediment Sample	
Inorganics (ug/g)	
ALUMINUM	41803.2
ARSENIC	13.0
CADMIUM	0.39
CHROMIUM	176.3
COPPER	242.5 J
IRON	35082.6
LEAD	103.4
MANGANESE	464.9 J
MERCURY	0.637
NICKEL	37.6 J
SILVER	0.56
ZINC	473.3
SEM (ug/g)	
CADMIUM	0.34
COPPER	103.5 J
LEAD	94.7 J
ZINC	196.0
Polyaromatic Hydrocarbons (ng/g)	
1-METHYLNAPHTHALENE	27.1
1-METHYLPHENANTHRENE	47.4
2,3,5-TRIMETYLNAPHTHALENE	7.0
2,6-DIMETHYLNAPHTHALENE	28.1
2-METHYLNAPHTHALENE	29.0
ACENAPHTHENE	31.5
ACENAPHTHYLENE	61.2
ANTHRACENE	210
BENZO(A)ANTHRACENE	400
BENZO(A)PYRENE	447
BENZO(B,K)FLUORANTHENE	909
BENZO(E)PYRENE	365
BENZO(G,H,I)PERYLENE	307 J
BIPHENYL	7.6
CHRYSENE	400
DIBENZO(A,H)ANTHRACENE	91.1 J
FLUORANTHENE	837
FLUORENE	32.5
INDENO(1,2,3-CD)PYRENE	306
NAPHTHALENE	32.4
PERYLENE	144
PHENANTHRENE	538
PYRENE	740
PCBs (ng/g)	
TOTAL PCBS	452
2,4'-DDE	0.4 J
2,4'-DDT	17.6
4,4'-DDD	174
4,4'-DDE	17.2
4,4'-DDT	104
GAMMA-BHC (LINDANE)	0.6 J
HEPTACHLOR	6.0 J
HEXACHLOROBENZENE	0.5
MIREX	2.0 J
TRANS-NONACHLOR	0.9

1018 Seep Sample	
Inorganics (ug/L)	
ALUMINUM	7.8 J
COPPER	5.4
IRON	20.4 J
MANGANESE	3.2
NICKEL	47.3 J
ZINC	36.2 J
COPPER, FILTERED	5.0
MANGANESE, FILTERED	2.8
NICKEL, FILTERED	43.6 J
ZINC, FILTERED	34.2 J
Polyaromatic Hydrocarbons (ng/L)	
ACENAPHTHENE	0.2 J
ACENAPHTHYLENE	0.2 J
BENZO(A)PYRENE	0.7 J
CHRYSENE	1.3 J
FLUORANTHENE	2.9 J
PYRENE	2.6 J
PCBs (ng/L)	
TOTAL PCBS	0.6
ALPHA-CHLORDANE	0.1 J
HEPTACHLOR	0.2 J

1018 (Dup) Seep Sample	
Inorganics (ug/L)	
ALUMINUM	124.5 J
COPPER	4.6
IRON	48.0 J
MANGANESE	2.3
NICKEL	36.4 J
ZINC	111 J
ALUMINUM, FILTERED	10.6 J
CADMIUM, FILTERED	0.5 J
COPPER, FILTERED	4.8
IRON, FILTERED	3.5
MANGANESE, FILTERED	3.3
NICKEL, FILTERED	14.6 J
ZINC, FILTERED	95.0 J
Polyaromatic Hydrocarbons (ng/L)	
ACENAPHTHYLENE	0.2 J
BENZO(A)PYRENE	0.3 J
CHRYSENE	1.2 J
FLUORANTHENE	1.7 J
PYRENE	1.5 J
PCBs (ng/L)	
TOTAL PCBS	0.2
4,4'-DDE	0.1 J
ALPHA-CHLORDANE	0.1 J

1017 Sediment Sample	
Inorganics (ug/g)	
ALUMINUM	34437.1
ARSENIC	9.6
CADMIUM	0.45
CHROMIUM	192.2
COPPER	222.6 J
IRON	33480.9
LEAD	67.7
MANGANESE	535.1 J
MERCURY	0.496
NICKEL	36.8 J
SILVER	0.42
ZINC	506.9
SEM (ug/g)	
CADMIUM	0.34
LEAD	48.7 J
ZINC	289.3
Polyaromatic Hydrocarbons (ng/g)	
1-METHYLNAPHTHALENE	25.9
1-METHYLPHENANTHRENE	38.3
2,3,5-TRIMETYLNAPHTHALENE	5.6
2,6-DIMETHYLNAPHTHALENE	21.3
2-METHYLNAPHTHALENE	29.5
ACENAPHTHENE	24.8
ACENAPHTHYLENE	61.3
ANTHRACENE	196
BENZO(A)ANTHRACENE	432
BENZO(A)PYRENE	535
BENZO(B,K)FLUORANTHENE	997
BENZO(E)PYRENE	377
BENZO(G,H,I)PERYLENE	289 J
BIPHENYL	7.0
CHRYSENE	419
DIBENZO(A,H)ANTHRACENE	88.4 J
FLUORANTHENE	739
FLUORENE	31.3
INDENO(1,2,3-CD)PYRENE	298
NAPHTHALENE	35.8
PERYLENE	200
PHENANTHRENE	400
PYRENE	740
PCBs (ng/g)	
TOTAL PCBS	1000
4,4'-DDD	11.2
4,4'-DDE	5.8
4,4'-DDT	24.8
HEPTACHLOR	4.2 J
HEXACHLOROBENZENE	0.1 J
MIREX	6.7 J
TRANS-NONACHLOR	0.7 J

1017 Seep Sample	
Inorganics (ug/L)	
ALUMINUM	59.2 J
ARSENIC	11.7 J
COPPER	4.3
IRON	411.0 J
MANGANESE	26.9
NICKEL	8.0 UR
ZINC	95.0 J
ALUMINUM, FILTERED	14.5 J
ARSENIC, FILTERED	9.7 J
IRON, FILTERED	38.2
MANGANESE, FILTERED	29.0
NICKEL, FILTERED	8.0 UR
ZINC, FILTERED	32.8 J
Polyaromatic Hydrocarbons (ng/L)	
1-METHYLPHENANTHRENE	1.1 J
ACENAPHTHENE	0.5 J
ACENAPHTHYLENE	0.8 J
ANTHRACENE	2.8
BENZO(A)PYRENE	3.3 J
BENZO(B,K)FLUORANTHENE	8.1 J
BENZO(E)PYRENE	3.4 J
BENZO(G,H,I)PERYLENE	3.4 J
CHRYSENE	4.9 J
FLUORANTHENE	7.8 J
INDENO(1,2,3-CD)PYRENE	3.2 J
PERYLENE	1.4 J
PYRENE	6.6 J
PCBs (ng/L)	
TOTAL PCBS	294
ALPHA-CHLORDANE	0.1 J
HEPTACHLOR EPOXIDE	0.1 J

REV	DESCRIPTION	PREP BY	DATE	APPRVD

Brown & Root Environmental
DSGN: DR: B. JONES / LATHUP
SUPV: CHK: LEK
SUBMITTED BY: (FIRST MEMBER) Linda Klock (TITLE) 4/15/97 (DATE)
NORTHDIV HD: ___ DN: ___ HD: ___ FPE: ___ DR: ___ OFFICER IN CHARGE APPROVED DATE

NAVAL FACILITIES ENGINEERING COMMAND PHILADELPHIA, PA.

DEPARTMENT OF THE NAVY
NAVAL BASE

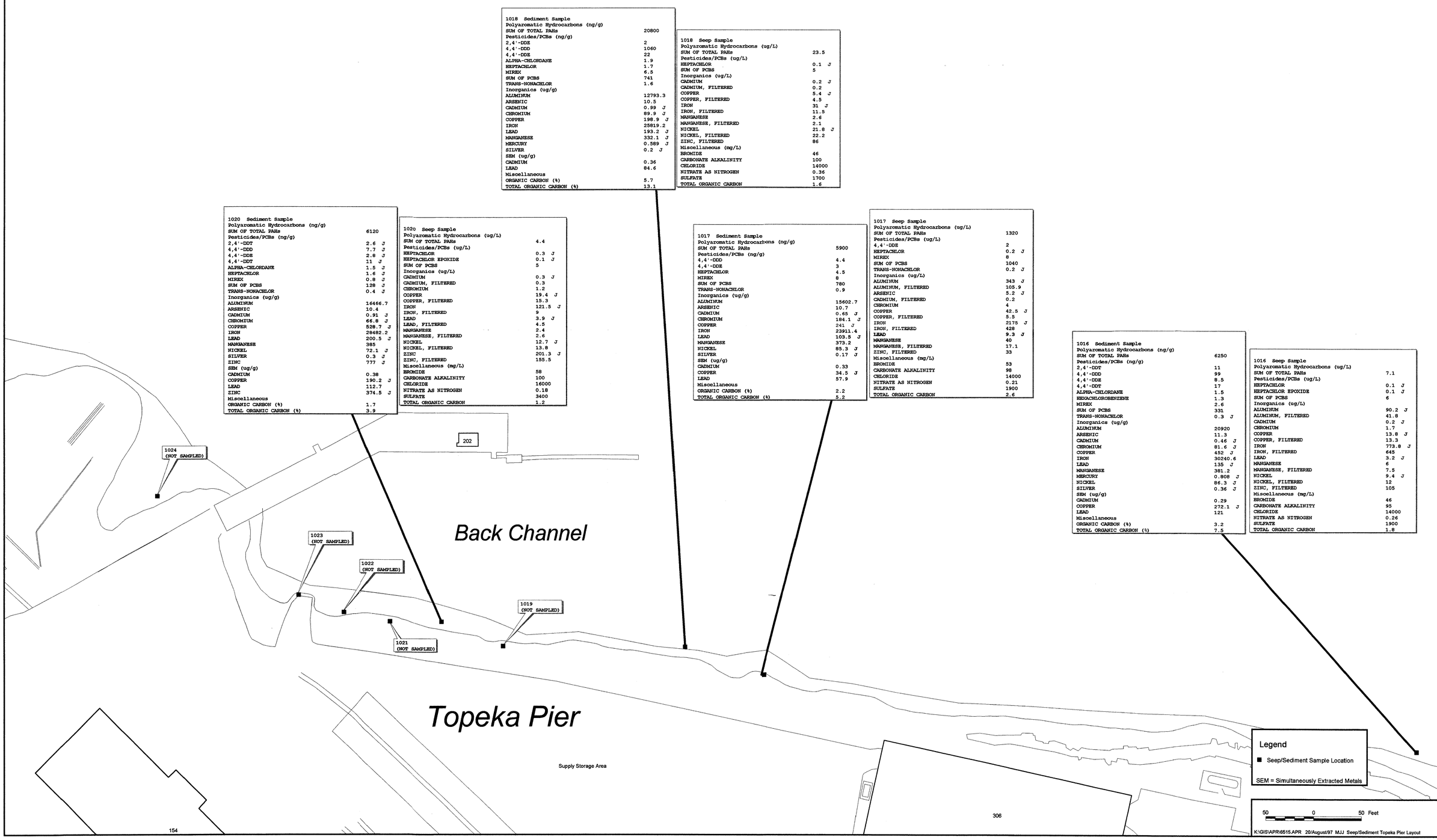
NORTHERN DIVISION

POSITIVE DETECTIONS IN SEEP/SEDIMENT SAMPLES - ROUND 7
TOPEKA PIER AREA
PORTSMOUTH NAVAL SHIPYARD
KITTERY MAINE

NORTHDIV FOR COMMANDER, NAVFAC
DATE
APPROVED

SEAL AREA

SAT TO DATE
CODE I.D. NO. 80091
SCALE: AS SHOWN
SPEC. NO.
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET – OF –
SIZE: D
DIS. SH. NO. PLATE 3



1018 Sediment Sample

Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	20800
Pesticides/PCBs (ng/g)	
2,4'-DDE	2
4,4'-DDD	1060
4,4'-DDE	22
ALPHA-CHLORDANE	1.9
HEPTACHLOR	1.7
MIREX	6.5
SUM OF PCBS	741
TRANS-NONACHLOR	1.6
Inorganics (ug/g)	
ALUMINUM	12793.3
ARSENIC	10.5
CADMIUM	0.99 J
CHROMIUM	89.9 J
COPPER	198.9 J
IRON	25819.2
LEAD	193.2 J
MANGANESE	332.1 J
MERCURY	0.589 J
SILVER	0.2 J
SEM (ug/g)	
CADMIUM	0.36
LEAD	84.6
Miscellaneous	
ORGANIC CARBON (%)	5.7
TOTAL ORGANIC CARBON (%)	13.1

1018 Seep Sample

Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	23.5
Pesticides/PCBs (ug/L)	
HEPTACHLOR	0.1 J
SUM OF PCBS	5
Inorganics (ug/L)	
CADMIUM	0.2 J
CADMIUM, FILTERED	0.2
COPPER	5.4 J
COPPER, FILTERED	4.5
IRON	31 J
IRON, FILTERED	11.5
MANGANESE	2.6
MANGANESE, FILTERED	2.1
NICKEL	21.8 J
NICKEL, FILTERED	22.2
ZINC, FILTERED	86
Miscellaneous (mg/L)	
BROMIDE	46
CARBONATE ALKALINITY	100
CHLORIDE	14000
NITRATE AS NITROGEN	0.36
SULFATE	1700
TOTAL ORGANIC CARBON	1.6

1020 Sediment Sample

Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	6120
Pesticides/PCBs (ng/g)	
2,4'-DDT	2.6 J
4,4'-DDD	7.7 J
4,4'-DDE	2.6 J
4,4'-DDT	11 J
ALPHA-CHLORDANE	1.5 J
HEPTACHLOR	1.6 J
MIREX	0.8 J
SUM OF PCBS	128 J
TRANS-NONACHLOR	0.4 J
Inorganics (ug/g)	
ALUMINUM	16466.7
ARSENIC	10.4
CADMIUM	0.91 J
CHROMIUM	66.8 J
COPPER	528.7 J
IRON	28482.2
LEAD	200.5 J
MANGANESE	385
NICKEL	72.1 J
SILVER	0.3 J
ZINC	777 J
SEM (ug/g)	
CADMIUM	0.38
COPPER	190.2 J
LEAD	112.7
ZINC	374.5 J
Miscellaneous	
ORGANIC CARBON (%)	1.7
TOTAL ORGANIC CARBON (%)	3.9

1020 Seep Sample

Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	4.4
Pesticides/PCBs (ug/L)	
HEPTACHLOR	0.3 J
HEPTACHLOR EPOXIDE	0.1 J
SUM OF PCBS	5
Inorganics (ug/L)	
CADMIUM	0.3 J
CADMIUM, FILTERED	0.3
CHROMIUM	1.2
COPPER	19.4 J
COPPER, FILTERED	15.3
IRON	121.5 J
IRON, FILTERED	9
LEAD	3.9 J
LEAD, FILTERED	4.5
MANGANESE	2.4
MANGANESE, FILTERED	2.6
NICKEL	12.7 J
NICKEL, FILTERED	13.8
ZINC	201.3 J
ZINC, FILTERED	155.5
Miscellaneous (mg/L)	
BROMIDE	58
CARBONATE ALKALINITY	100
CHLORIDE	16000
NITRATE AS NITROGEN	0.18
SULFATE	3400
TOTAL ORGANIC CARBON	1.2

1017 Sediment Sample

Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	5900
Pesticides/PCBs (ng/g)	
4,4'-DDD	4.4
4,4'-DDE	3
HEPTACHLOR	4.5
MIREX	8
SUM OF PCBS	780
TRANS-NONACHLOR	0.9
Inorganics (ug/g)	
ALUMINUM	15602.7
ARSENIC	10.7
CADMIUM	0.65 J
CHROMIUM	184.1 J
COPPER	241 J
IRON	23911.4
LEAD	103.5 J
MANGANESE	373.2
NICKEL	85.3 J
SILVER	0.17 J
SEM (ug/g)	
CADMIUM	0.33
COPPER	34.5 J
LEAD	57.9
Miscellaneous	
ORGANIC CARBON (%)	2.2
TOTAL ORGANIC CARBON (%)	5.2

1017 Seep Sample

Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	1320
Pesticides/PCBs (ug/L)	
4,4'-DDE	2
HEPTACHLOR	0.2 J
MIREX	8
SUM OF PCBS	1040
TRANS-NONACHLOR	0.2 J
Inorganics (ug/L)	
ALUMINUM	343 J
ALUMINUM, FILTERED	105.9
ARSENIC	5.2 J
CADMIUM, FILTERED	0.2
CHROMIUM	4
COPPER	42.5 J
COPPER, FILTERED	5.5
IRON	2175 J
IRON, FILTERED	428
LEAD	9.3 J
MANGANESE	40
MANGANESE, FILTERED	17.1
ZINC, FILTERED	33
Miscellaneous (mg/L)	
BROMIDE	53
CARBONATE ALKALINITY	98
CHLORIDE	14000
NITRATE AS NITROGEN	0.21
SULFATE	1900
TOTAL ORGANIC CARBON	2.6

1016 Sediment Sample

Polyaromatic Hydrocarbons (ng/g)	
SUM OF TOTAL PAHs	6250
Pesticides/PCBs (ng/g)	
2,4'-DDT	11
4,4'-DDD	99
4,4'-DDE	8.5
4,4'-DDT	17
ALPHA-CHLORDANE	1.5
HEXACHLOROBENZENE	1.3
MIREX	2.6
SUM OF PCBS	331
TRANS-NONACHLOR	0.3 J
Inorganics (ug/g)	
ALUMINUM	20920
ARSENIC	11.3
CADMIUM	0.46 J
CHROMIUM	81.6 J
COPPER	452 J
IRON	30240.6
LEAD	135 J
MANGANESE	381.2
MERCURY	0.808 J
NICKEL	86.3 J
SILVER	0.36 J
SEM (ug/g)	
CADMIUM	0.29
COPPER	272.1 J
LEAD	121
Miscellaneous	
ORGANIC CARBON (%)	3.2
TOTAL ORGANIC CARBON (%)	7.5

1016 Seep Sample

Polyaromatic Hydrocarbons (ug/L)	
SUM OF TOTAL PAHs	7.1
Pesticides/PCBs (ug/L)	
HEPTACHLOR	0.1 J
HEPTACHLOR EPOXIDE	0.1 J
SUM OF PCBS	6
Inorganics (ug/L)	
ALUMINUM	90.2 J
ALUMINUM, FILTERED	41.8
CADMIUM	0.2 J
CHROMIUM	1.7
COPPER	13.8 J
COPPER, FILTERED	13.3
IRON	773.8 J
IRON, FILTERED	645
LEAD	3.2 J
MANGANESE	6
MANGANESE, FILTERED	7.5
NICKEL	9.4 J
NICKEL, FILTERED	12
ZINC, FILTERED	105
Miscellaneous (mg/L)	
BROMIDE	46
CARBONATE ALKALINITY	95
CHLORIDE	14000
NITRATE AS NITROGEN	0.26
SULFATE	1900
TOTAL ORGANIC CARBON	1.8

Brown & Root Environmental

DSGN: DR: M. ASHBY, SAFKAT CHK: RJ Lott

SUPV: CH. ENG.

SUBMITTED BY: Frank X. Ulinski (FIRM MEMBER) (TITLE) 8/22/97 (DATE)

NORTH/NDV

HOR:

VER:

FPB:

DIR:

OFFICER IN CHARGE

APPROVED

REV	DESCRIPTION	PREP BY	DATE	APPRVD

NAVAL FACILITIES ENGINEERING COMMAND — PHILADELPHIA, PA

DEPARTMENT OF THE NAVY — NAVAL BASE

NORTHERN DIVISION

POSITIVE DETECTIONS IN SEEP/SEDIMENT SAMPLES - ROUND 8
TOPEKA PIER AREA
PORTSMOUTH NAVAL SHIPYARD
KITTERY MAINE

NORTHNDIV FOR COMMANDER, NAVFAC

APPROVED — DATE

SEAL AREA

SAT TO — DATE

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SCALE: AS SHOWN

SPEC. NO.

CONSTR. CONTR. NO.

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SHEET _ OF _

SIZE: D

DIS. SH. NO. PLATE 3