03.15-12/14/01-00583

Ecological Risk Assessment - SWMU 25 - Inert Landfill

PREPARED FOR: NAS Oceana Ecological Subgroup

PREPARED BY: CH2M HILL

DATE: December 14, 2001

During the October 2001 Navy Partnering Team Meeting, a plan of action for assessing the risk to ecological receptors at SWMU 25 was developed. The plan consists of comparing analytical sediment and surface water data collected during the Phase I, II, and III RCRA Facility Investigations (CH2M HILL 1993, 1995, 1999) to BTAG screening values for flora and fauna, computing screening-level food-chain models for bioaccumulative chemicals for aquatic receptors, and to develop a list of chemicals of potential concern (COPCs) based upon hazard quotients (HQs) equal to or greater than one. The results of these analyses are presented in this Technical Memorandum.

Site History

SWMU 25 (Inert Landfill) is located approximately 2,400 feet north, and in the Type II Clear Zone, of NAS Oceana Airfield Runway 14/32 (Figure 1). The general area is bounded on the south by the Norfolk and Southern Railroad; on the west and east by undeveloped land; and, on the north by Virginia Highway 44. A semi-paved access road crosses the railroad and connects the SWMU to Potters Road. The area south of the railroad is characterized by farm fields owned by the Navy, but leased to a local farmer.

During the construction of Highway 44 in the 1970s, this area was used as borrow pits for sand and gravel. Over the years, the two borrow pits in this area filled with water eventually forming ponds. The western pond is approximately twenty-five to thirty feet deep. The eastern pond is not being evaluated for two reasons. First, there is no evidence that this pond was ever used as a landfill. Second, although a ditch runs between the two ponds, the ditch is completely blocked by a dirt road, which leads into the area. Therefore, there is no flow of surface water between the two ponds, so any potential contamination in the western pond, will not migrate to the eastern pond.

In 1979, the Navy purchased the land and began using the area near the western pond as a concrete disposal area. These disposal activities ceased prior to 1990 and the area has not since been used by the Navy. The SWMU was identified in 1983 (RFA) due to the presence of the concrete rubble and apparent residential dumping of old refrigerators and other appliances.

Approximately 60 percent of the concrete was placed within the western pond. The pile of debris rises above adjacent grade levels by 8 to 16 feet. It is roughly circular with a diameter of about 360 feet. NAVFAC Instruction P-80.3 indicates that Type II Clear Zones shall be graded and cleared of all above ground objects except airfield lighting. Therefore, the

concrete is scheduled to be removed and recycled by a contractor at no expense to the Navy. The concrete removal will extend to the ground surface adjacent to the pond and to three feet below the water surface, in the pond.

Solid waste, other than concrete, will be properly disposed by the facility. In addition, any hazardous wastes or other materials that are discovered as part of the concrete removal, will be fully characterized and managed by the Navy.

As part of the restoration plan, after the concrete is removed the western pond will be used for the development of a warm water fishery. Sand will be added to fill spaces left between pieces of concrete, thus creating an aquatic bench along the edge of the pond. Details of the restoration are included in the Environmental Assessment Prepared for the Concrete Disposal Restoration (U.S. Navy, 1997).

Environmental Setting

The western pond covers approximately six acres and is approximately twenty five to thirty feet deep. There is no outlet from the western pond. The ponds are primarily surrounded by a variety of grasses, scattered eastern red cedar (*Juniperus virginiana*), black cherry (*Prunun serotina*), groundsel tree (*Baccharis halimfolia*), and southern byberry (*Myrica cerifera*), as well as escaped ornamentals such as crabapple (*Malus*), red mulberry (*Morus rubra*), and Chinese privet (*Ligustrum sinense*).

A variety of birds have been observed around the pond, including great blue heron (*Ardea herodias*), ring-necked duck (*Aythya collaris*), mallard (*Anas platyrhynchos)*, belted kingfisher (*Ceryle alcyon*), and crows (*Corvus brachyrhyncos*). Bluegills and largemouth bass have been observed in the pond.

Available Data

Two surface water samples and three sediment samples were collected in 1993, as part of the Phase I RFI. Two sediment samples and a surface water sample were collected in the pond, and a surface water and sediment sample were collected in the adjacent ditch. Samples were analyzed for metals, pesticides, PCBs, semivolatile organic compounds (SVOCs), and volatile organic compounds (VOCs).

Three additional sediment samples were collected along the shoreline of the pond in 1994 as part of the Phase II RFI in order to confirm the presence of pesticides and metals in the pond. The samples were not analyzed for SVOCs or VOCs because earlier samples did not have concentrations above ambient water quality criteria or established sediment criteria.

In 1999, as part of the Phase III RFI, three additional sediment samples were collected in the middle of the pond in order to determine if the pesticide contamination observed earlier was coming from the inert landfill or the adjacent farm field, which may have been intermittently treated with pesticides for agricultural purposes. As all results were below the detection limits in all three samples, it was determined that the inert landfill is not likely a source of pesticides.

Methodology

Data from all sampling rounds were used. Maximum concentrations for each analyte were compared to BTAG screening values for both fauna and flora. All chemicals with HQs equal to or greater than one, are considered to be COPCs. For those chemicals that were undetected, maximum reporting limits were used. All detected chemicals without a screening value were considered to be COPCs.

Maximum concentrations were used in an ingestion based food web model using bioaccumulative chemicals (USEPA 2000). All chemicals which have No Observed Adverse Effect Level (NOAEL) HQs greater than or equal to one are considered to be COPCs. Receptors which were assumed to be representative of the site, and were used in the model, include the raccoon, mink, muskrat, kingfisher, and the mallard.

Screening Results

Surface Water - Flora

No metals exceeded screening values based upon detected concentrations. Four undetected metals (cadmium, chromium, mercury, and silver) exceeded the screening values based upon maximum reporting limits. Screening values were not available for nine metals, however, only one of these metals (manganese) was detected (29.7 ug/L – SW01).

No PCBs or pesticides exceeded screening values based upon detected concentrations. Seven undetected PCBs and nine undetected pesticides exceeded the screening values based upon maximum reporting limits. Screening values were not available for one undetected pesticide.

No SVOCs exceeded screening values based upon detected concentrations. Ten undetected SVOCs pesticides exceeded the screening values based upon maximum reporting limits. Screening values were not available for thirty-six SVOCs, however, only two of these (2-methylnapthalene and naphthalene) were detected at levels of 6.0 and 3.0 ug/L, respectively. These SVOCs were only detected in one out of the two samples collected (SW01).

No VOCs exceeded screening values based upon detected concentrations or maximum reporting limits. Screening values were not available for twenty VOCs, however, only one of the VOCs (toluene) was detected (29.7 ug/L) and it was only detected in one of the two samples collected (SW02).

Surface Water – Fauna

No metals exceeded screening values based upon detected concentrations. Five undetected metals (aluminum, cadmium, iron, mercury, and silver) exceeded the screening values based upon maximum reporting limits.

No PCBs or pesticides exceeded screening values based upon detected concentrations. Seven undetected PCBs and ten undetected pesticides exceeded the screening values based upon maximum reporting limits.

No SVOCs exceeded screening values based upon detected concentrations. Twelve undetected SVOCs pesticides exceeded the screening values based upon maximum

reporting limits. Screening values were not available for twenty-nine SVOCs, however, only one of these (2-methylnapthalene) was detected (6.0 ug/L – SW01).

No VOCs exceeded screening values based upon detected concentrations. One undetected VOC (carbon disulfide) exceeded its screening value based upon the maximum reporting limit. Screening values were not available for seven undetected VOCs.

Sediment - Flora

One metal (chromium) exceeded screening values based upon detected concentrations. No metals exceeded the screening values based upon maximum reporting limits. Screening values were not available for sixteen metals.

Two pesticides (4,4'-DDD and 4,4'-DDE) exceeded screening values based upon detected concentrations. Twenty undetected pesticides were considered to be COPCs because no screening values were available. Seven undetected PCBs exceeded the screening values based upon maximum reporting limits.

No SVOCs exceeded screening values based upon detected concentrations. Sixteen undetected SVOCs pesticides exceeded the screening values based upon maximum reporting limits. Screening values were not available for forty-two SVOCs.

No VOCs exceeded screening values based upon detected concentrations or maximum reporting limits. Screening values were not available for thirty-eight VOCs.

Sediment – Fauna

Three metals (cadmium, copper, and zinc) exceeded screening values based upon detected concentrations. No metals exceeded the screening values based upon maximum reporting limits. Nine metals were considered to be COPCs because no screening values were available.

Two pesticides (4,4'-DDD and 4,4'-DDE) exceeded screening values based upon detected concentrations. Nineteen undetected pesticides were considered to be COPCs because no screening values were available. Seven PCBs exceeded the screening values based upon maximum reporting limits although no PCBs were detected.

No SVOCs exceeded screening values based upon detected concentrations. Twenty-one undetected SVOCs pesticides exceeded the screening values based upon maximum reporting limits. Thirty-three SVOCs were considered to be COPCs because no screening values were available.

No VOCs exceeded screening values based upon detected concentrations or maximum reporting limits. Screening values were not available for thirty-three VOCs.

Food Web

Copper exceeded ingestion based screening values for all five receptors. Lead exceeded screening values for the mallard. Mercury exceeded screening values for the muskrat, kingfisher, and the mallard. Zinc exceeded screening values for the raccoon, kingfisher, and the mallard.

Three PCBs exceeded screening values for the raccoon and the mink. All seven PCBs exceeded screening values for the kingfisher. NOAEL HQs ranged from 1.86 to 6.64.

Hexachlorobenzene exceeded screening values for the kingfisher (NOAEL HQ of 1.02).

Uncertainties

Screening Values

There were no screening values available for some chemicals in some of the media. This resulted in the chemical being retained as a COPC for detected chemicals. Undetected chemicals for which screening values were not available were not retained as COPCs because the potential for these chemicals to be present at concentrations that could adversely affect ecological receptors is unknown. The potential for risks associated with the chemicals is unknowns for the following reasons. A non-detected result shows that the analytical methods could not detect the presence of a compound above a certain detection limit. The compound could be present at concentrations up to the detection limit for that compound or the compound may be absent. This adds an uncertainty to the risk assessment process. The non-detected value may or may not be toxic depending on screening values. If a screening value is not available for that compound, additional uncertainty is introduced into the process.

Data Issues

Analytical data from the Phase I and Phase III RFIs were validated. However, validated data from the Phase II RFI were not available. Detection limits used in the 1993 and 1994 timeframe are not as refined as they are currently. This could result in very high maximum detection limits being used in cases where no concentrations were detected in any of the samples.

Conclusions

No analytes exceeded screening values based upon maximum concentrations in surface water for either aquatic invertebrates or plants.

Seven metals and two pesticides exceeded screening values based upon maximum concentrations in sediment.

Three metals, seven PCBs, and one SVOC exceeded ingestion based screening values for one or more receptor based upon maximum concentrations.

Recommendations

There appears to be an isolated area in the pond adjacent to SWMU 25 where potential risk to ecological receptors may exist. This is supported by sediment chemistry data from sample location OW25-SD01-93A in the southeast corner of the pond. Because this sample is located near the end of a ditch between the inert debris pile and the railroad track to the south, there is uncertainty as to whether this contamination is due to the inert debris pile or some other source. The remaining data from the pond suggests contamination is limited to this southeastern corner. Risk posed by this one sample appears limited and therefore, no further action is recommended at SWMU 25.

References

CH2M HILL. 1999. *RCRA Facility Investigation Final Report-Phase III, Naval Air Station Oceana.* Prepared for Atlantic Division Naval Facilities Engineering Command. June.

CH2M HILL. 1995. *RCRA Facility Investigation Final Report-Phase II, Naval Air Station Oceana.* Prepared for Atlantic Division Naval Facilities Engineering Command. February.

CH2M HILL. 1993. *RCRA Facility Investigation Final Report-Phase I, Naval Air Station Oceana.* Prepared for Atlantic Division Naval Facilities Engineering Command. December.

USEPA. 2000. *Bioaccumulative Testing and Interpretation for the purpose of Sediment Quality Assessment.* EPA-823-R-00-001. February.

US Navy. 1997. *Final Environmental Assessment - Concrete Disposal Area Restoration.* NAS Oceana, Virginia Beach, VA. Department of the Navy. July.

Table 1
Screening Statistics - BTAG Flora
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Inorganics (UG/L)								
Aluminum	288 - 288	0 / 1	--	--	460	-- / --	0.63	NO
Antimony	16.4 - 16.4	0 / 2	--	--	NSV	-- / --	NSV	NO
Arsenic	-- - --	2 / 2	1.20	OW25-SW02-93A	48.0	0 / 2	0.025	NO
Barium	-- - --	2 / 2	38.5	OW25-SW01-93A	10,000	0 / 2	0.0039	NO
Beryllium	0.26 - 0.26	0 / 2	--	--	NSV	-- / --	NSV	NO
Cadmium	2.80 - 2.80	0 / 2	--	--	1.10	-- / --	2.55	YES
Calcium [2]	37,100 - 37,100	1 / 1	37,100	OW25-SW01-93A	NSV	-- / --	NSV	NO
Chromium	2.80 - 2.80	0 / 2	--	--	2.00	-- / --	1.40	YES
Cobalt	2.60 - 2.60	0 / 2	--	--	NSV	-- / --	NSV	NO
Copper	2.70 - 2.90	0 / 2	--	--	NSV	-- / --	NSV	NO
Cyanide	1.40 - 1.40	0 / 1	--	--	5.20	-- / --	0.27	NO
Iron	399 - 399	0 / 1	--	--	NSV	-- / --	NSV	NO
Lead	1.70 - 1.70	0 / 2	--	--	NSV	-- / --	NSV	NO
Magnesium [2]	-- - --	1 / 1	6,500	OW25-SW01-93A	NSV	-- / --	NSV	NO
Manganese	-- - --	1 / 1	29.7	OW25-SW01-93A	NSV	-- / --	NSV	YES
Mercury	0.070 - 0.070	0 / 2	--	--	0.012	-- / --	5.83	YES
Nickel	9.40 - 13.7	0 / 2	--	--	340	-- / --	0.040	NO
Potassium [2]	-- - --	1 / 1	10,600	OW25-SW01-93A	NSV	-- / --	NSV	NO
Silver	2.00 - 2.00	0 / 2	--	--	1.90	-- / --	1.05	YES
Sodium [2]	-- - --	1 / 1	26,200	OW25-SW01-93A	NSV	-- / --	NSV	NO
Thallium	2.30 - 2.30	0 / 2	--	--	NSV	-- / --	NSV	NO
Vanadium	2.60 - 2.60	0 / 2	--	--	NSV	-- / --	NSV	NO
Zinc	9.00 - 9.00	1 / 2	15.7	OW25-SW02-93A	30.0	0 / 2	0.52	NO
Pesticide/Polychlorinated Biphenyls (UG/L)								
4,4'-DDD	0.040 - 0.040	0 / 2	--	--	0.60	-- / --	0.067	NO
4,4'-DDE	0.020 - 0.020	0 / 2	--	--	1,050	-- / --	1.90E-05	NO
4,4'-DDT	0.040 - 0.040	0 / 2	--	--	5,000	-- / --	8.00E-06	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 1
Screening Statistics - BTAG Flora
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Aldrin	0.020 - 0.020	0 / 2	--	--	3.00	-- / --	0.0067	NO
Aroclor-1016	1.00 - 1.00	0 / 2	--	--	0.10	-- / --	10.0	YES
Aroclor-1221	2.00 - 2.00	0 / 2	--	--	0.10	-- / --	20.0	YES
Aroclor-1232	2.00 - 2.00	0 / 2	--	--	0.10	-- / --	20.0	YES
Aroclor-1242	1.00 - 1.00	0 / 2	--	--	0.10	-- / --	10.0	YES
Aroclor-1248	1.00 - 1.00	0 / 2	--	--	0.10	-- / --	10.0	YES
Aroclor-1254	0.50 - 0.50	0 / 2	--	--	0.10	-- / --	5.00	YES
Aroclor-1260	0.50 - 0.50	0 / 2	--	--	0.10	-- / --	5.00	YES
Chlordane	0.020 - 0.20	0 / 2	--	--	0.0043	-- / --	46.5	YES
Dieldrin	0.020 - 0.020	0 / 2	--	--	0.0019	-- / --	10.5	YES
Endosulfan I	0.020 - 0.020	0 / 2	--	--	0.056	-- / --	0.36	NO
Endosulfan II	0.040 - 0.040	0 / 2	--	--	0.056	-- / --	0.71	NO
Endosulfan sulfate	0.040 - 0.040	0 / 2	--	--	0.056	-- / --	0.71	NO
Endrin	0.040 - 0.040	0 / 2	--	--	0.0023	-- / --	17.4	YES
Endrin aldehyde	0.040 - 0.040	0 / 2	--	--	0.0023	-- / --	17.4	YES
Endrin ketone	0.020 - 0.020	0 / 2	--	--	0.0023	-- / --	8.70	YES
Heptachlor	0.020 - 0.020	0 / 2	--	--	0.0038	-- / --	5.26	YES
Heptachlor epoxide	0.020 - 0.020	0 / 2	--	--	0.0038	-- / --	5.26	YES
Methoxychlor	0.080 - 0.080	0 / 2	--	--	0.030	-- / --	2.67	YES
Toxaphene	1.00 - 1.00	0 / 2	--	--	2.00E-04	-- / --	5,000	YES
alpha-BHC	0.020 - 0.020	0 / 2	--	--	100	-- / --	2.00E-04	NO
beta-BHC	0.040 - 0.040	0 / 2	--	--	100	-- / --	4.00E-04	NO
delta-BHC	0.020 - 0.020	0 / 2	--	--	100	-- / --	2.00E-04	NO
gamma-BHC (Lindane)	0.020 - 0.020	0 / 2	--	--	NSV	-- / --	NSV	NO
Semivolatile Organic Compounds (UG/L)								
1,2,4-Trichlorobenzene	10.0 - 10.0	0 / 2	--	--	50.0	-- / --	0.20	NO
1,2-Dichlorobenzene	10.0 - 10.0	0 / 2	--	--	763	-- / --	0.013	NO
1,2-Diphenylhydrazine	10.0 - 10.0	0 / 2	--	--	270	-- / --	0.037	NO
1,3-Dichlorobenzene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 1
Screening Statistics - BTAG Flora
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
1,4-Dichlorobenzene	10.0 - 10.0	0 / 2	--	--	763	-- / --	0.013	NO
2,2'-Oxybis(1-chloropropane)	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2,4,5-Trichlorophenol	50.0 - 50.0	0 / 2	--	--	63.0	-- / --	0.79	NO
2,4,6-Trichlorophenol	10.0 - 10.0	0 / 2	--	--	970	-- / --	0.010	NO
2,4-Dichlorophenol	10.0 - 10.0	0 / 2	--	--	365	-- / --	0.027	NO
2,4-Dimethylphenol	10.0 - 10.0	0 / 2	--	--	2,120	-- / --	0.0047	NO
2,4-Dinitrophenol	50.0 - 50.0	0 / 2	--	--	150	-- / --	0.33	NO
2,4-Dinitrotoluene	10.0 - 10.0	0 / 2	--	--	230	-- / --	0.043	NO
2,6-Dinitrotoluene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Chloronaphthalene	10.0 - 10.0	0 / 2	--	--	620	-- / --	0.016	NO
2-Chlorophenol	10.0 - 10.0	0 / 2	--	--	970	-- / --	0.010	NO
2-Methylnaphthalene	10.0 - 10.0	1 / 2	6.00	OW25-SW01-93A	NSV	-- / --	NSV	**YES**
2-Methylphenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Nitroaniline	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Nitrophenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
3,3'-Dichlorobenzidine	20.0 - 20.0	0 / 2	--	--	NSV	-- / --	NSV	NO
3-Nitroaniline	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4,6-Dinitro-2-methylphenol	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Bromophenyl-phenylether	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Chloro-3-methylphenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Chloroaniline	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Chlorophenyl-phenylether	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Nitroaniline	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Nitrophenol	50.0 - 50.0	0 / 2	--	--	150	-- / --	0.33	NO
Acenaphthene	10.0 - 10.0	0 / 2	--	--	520	-- / --	0.019	NO
Acenaphthylene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Aniline	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Anthracene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(a)anthracene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 1
Screening Statistics - BTAG Flora
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Benzo(a)pyrene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(b)fluoranthene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(g,h,i)perylene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(k)fluoranthene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzoic acid	10.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzyl alcohol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Butylbenzylphthalate	10.0 - 10.0	0 / 2	--	--	3.00	-- / --	3.33	YES
Chrysene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Di-n-butylphthalate	10.0 - 10.0	0 / 2	--	--	0.30	-- / --	33.3	YES
Di-n-octylphthalate	10.0 - 10.0	0 / 2	--	--	0.30	-- / --	33.3	YES
Dibenz(a,h)anthracene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Dibenzofuran	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Diethylphthalate	10.0 - 10.0	0 / 2	--	--	3.00	-- / --	3.33	YES
Dimethyl phthalate	10.0 - 10.0	0 / 2	--	--	3.00	-- / --	3.33	YES
Fluoranthene	10.0 - 10.0	0 / 2	--	--	3,980	-- / --	0.0025	NO
Fluorene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Hexachlorobenzene	10.0 - 10.0	0 / 2	--	--	3.68	-- / --	2.72	YES
Hexachlorobutadiene	10.0 - 10.0	0 / 2	--	--	9.30	-- / --	1.08	YES
Hexachlorocyclopentadiene	10.0 - 10.0	0 / 2	--	--	5.20	-- / --	1.92	YES
Hexachloroethane	10.0 - 10.0	0 / 2	--	--	540	-- / --	0.019	NO
Indeno(1,2,3-cd)pyrene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Isophorone	10.0 - 10.0	0 / 2	--	--	117,000	-- / --	8.55E-05	NO
Naphthalene	10.0 - 10.0	1 / 2	3.00	OW25-SW01-93A	NSV	-- / --	NSV	YES
Nitrobenzene	10.0 - 10.0	0 / 2	--	--	27,000	-- / --	3.70E-04	NO
Pentachlorophenol	50.0 - 50.0	0 / 2	--	--	13.0	-- / --	3.85	YES
Phenanthrene	10.0 - 10.0	0 / 2	--	--	6.30	-- / --	1.59	YES
Phenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Pyrene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
bis(2-Chloroethoxy)methane	10.0 - 50.0	0 / 2	--	--	11,000	-- / --	0.0045	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 1
Screening Statistics - BTAG Flora
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
bis(2-Chloroethyl)ether	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
bis(2-Ethylhexyl)phthalate	10.0 - 10.0	1 / 2	2.00	OW25-SW02-93A	30.0	0 / 2	0.067	NO
n-Nitroso-di-n-propylamine	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
n-Nitrosodimethylamine	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
n-Nitrosodiphenylamine	10.0 - 10.0	0 / 2	--	--	5,850	-- / --	0.0017	NO
Volatile Organic Compounds (UG/L)								
1,1,1-Trichloroethane	5.00 - 5.00	0 / 2	--	--	9,400	-- / --	5.32E-04	NO
1,1,2,2-Tetrachloroethane	5.00 - 5.00	0 / 2	--	--	146,000	-- / --	3.42E-05	NO
1,1,2-Trichloroethane	5.00 - 5.00	0 / 2	--	--	9,400	-- / --	5.32E-04	NO
1,1-Dichloroethane	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
1,1-Dichloroethene	5.00 - 5.00	0 / 2	--	--	798,000	-- / --	6.27E-06	NO
1,2,4-Trichlorobenzene	5.00 - 5.00	0 / 1	--	--	50.0	-- / --	0.10	NO
1,2-Dibromo-3-chloropropane	10.0 - 10.0	0 / 1	--	--	NSV	-- / --	NSV	NO
1,2-Dibromoethane	5.00 - 5.00	0 / 1	--	--	NSV	-- / --	NSV	NO
1,2-Dichlorobenzene	5.00 - 5.00	0 / 2	--	--	763	-- / --	0.0066	NO
1,2-Dichloroethane	5.00 - 5.00	0 / 2	--	--	20,000	-- / --	2.50E-04	NO
1,2-Dichloroethene (total)	5.00 - 5.00	0 / 1	--	--	11,600	-- / --	4.31E-04	NO
1,2-Dichloropropane	5.00 - 5.00	0 / 2	--	--	5,700	-- / --	8.77E-04	NO
1,3-Dichlorobenzene	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
1,4-Dichlorobenzene	5.00 - 5.00	0 / 2	--	--	763	-- / --	0.0066	NO
2-Butanone	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Chloroethyl vinyl ether	10.0 - 10.0	0 / 1	--	--	NSV	-- / --	NSV	NO
2-Hexanone	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Methyl-2-pentanone	5.00 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Acetone	10.0 - 10.0	1 / 2	10.0	OW25-SW01-93A	NSV	-- / --	NSV	**YES**
Benzene	5.00 - 5.00	0 / 2	--	--	20,000	-- / --	2.50E-04	NO
Bromochloromethane	5.00 - 5.00	0 / 1	--	--	NSV	-- / --	NSV	NO
Bromodichloromethane	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
Bromoform	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 1
Screening Statistics - BTAG Flora
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Bromomethane	5.00 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Carbon disulfide	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
Carbon tetrachloride	5.00 - 5.00	0 / 2	--	--	35,200	-- / --	1.42E-04	NO
Chlorobenzene	5.00 - 5.00	0 / 2	--	--	6,630	-- / --	7.54E-04	NO
Chloroethane	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Chloroform	5.00 - 5.00	0 / 2	--	--	1,240	-- / --	0.0040	NO
Chloromethane	5.00 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Dibromochloromethane	5.00 - 5.00	0 / 2	--	--	11,000	-- / --	4.55E-04	NO
Ethylbenzene	5.00 - 5.00	0 / 2	--	--	32,000	-- / --	1.56E-04	NO
Methylene chloride	5.00 - 5.00	0 / 2	--	--	11,000	-- / --	4.55E-04	NO
Styrene	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
Tetrachloroethene	5.00 - 5.00	0 / 2	--	--	840	-- / --	0.0060	NO
Toluene	5.00 - 5.00	1 / 2	2.00	OW25-SW02-93A	NSV	-- / --	NSV	**YES**
Trichloroethene	5.00 - 5.00	0 / 2	--	--	21,900	-- / --	2.28E-04	NO
Trichlorofluoromethane(Freon-11)	5.00 - 5.00	0 / 1	--	--	11,000	-- / --	4.55E-04	NO
Vinyl acetate	10.0 - 10.0	0 / 1	--	--	NSV	-- / --	NSV	NO
Vinyl chloride	2.00 - 2.00	0 / 2	--	--	11,600	-- / --	1.72E-04	NO
Xylene, total	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
cis-1,2-Dichloroethene	5.00 - 5.00	0 / 1	--	--	11,600	-- / --	4.31E-04	NO
cis-1,3-Dichloropropene	5.00 - 5.00	0 / 2	--	--	244	-- / --	0.020	NO
trans-1,2-Dichloroethene	5.00 - 5.00	0 / 1	--	--	11,600	-- / --	4.31E-04	NO
trans-1,3-Dichloropropene	5.00 - 5.00	0 / 2	--	--	244	-- / --	0.020	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 2
Screening Statistics - BTAG Fauna
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Inorganics (UG/L)								
Aluminum	288 - 288	0 / 1	--	--	25.0	-- / --	11.5	YES
Antimony	16.4 - 16.4	0 / 2	--	--	30.0	-- / --	0.55	NO
Arsenic	-- - --	2 / 2	1.20	OW25-SW02-93A	190	0 / 2	0.0063	NO
Barium	-- - --	2 / 2	38.5	OW25-SW01-93A	10,000	0 / 2	0.0039	NO
Beryllium	0.26 - 0.26	0 / 2	--	--	5.30	-- / --	0.049	NO
Cadmium	2.80 - 2.80	0 / 2	--	--	0.53	-- / --	5.28	YES
Calcium [2]	37,100 - 37,100	1 / 1	37,100	OW25-SW01-93A	NSV	-- / --	NSV	NO
Chromium	2.80 - 2.80	0 / 2	--	--	11.0	-- / --	0.25	NO
Cobalt	2.60 - 2.60	0 / 2	--	--	35,000	-- / --	7.43E-05	NO
Copper	2.70 - 2.90	0 / 2	--	--	6.50	-- / --	0.45	NO
Cyanide	1.40 - 1.40	0 / 1	--	--	5.20	-- / --	0.27	NO
Iron	399 - 399	0 / 1	--	--	320	-- / --	1.25	YES
Lead	1.70 - 1.70	0 / 2	--	--	3.20	-- / --	0.53	NO
Magnesium [2]	-- - --	1 / 1	6,500	OW25-SW01-93A	NSV	-- / --	NSV	NO
Manganese	-- - --	1 / 1	29.7	OW25-SW01-93A	14,500	0 / 1	0.0020	NO
Mercury	0.070 - 0.070	0 / 2	--	--	0.012	-- / --	5.83	YES
Nickel	9.40 - 13.7	0 / 2	--	--	160	-- / --	0.086	NO
Potassium [2]	-- - --	1 / 1	10,600	OW25-SW01-93A	NSV	-- / --	NSV	NO
Silver	2.00 - 2.00	0 / 2	--	--	1.00E-04	-- / --	20,000	YES
Sodium [2]	-- - --	1 / 1	26,200	OW25-SW01-93A	NSV	-- / --	NSV	NO
Thallium	2.30 - 2.30	0 / 2	--	--	40.0	-- / --	0.058	NO
Vanadium	2.60 - 2.60	0 / 2	--	--	10,000	-- / --	2.60E-04	NO
Zinc	9.00 - 9.00	1 / 2	15.7	OW25-SW02-93A	110	0 / 2	0.14	NO
Pesticide/Polychlorinated Biphenyls (UG/L)								
4,4'-DDD	0.040 - 0.040	0 / 2	--	--	0.60	-- / --	0.067	NO
4,4'-DDE	0.020 - 0.020	0 / 2	--	--	1,050	-- / --	1.90E-05	NO
4,4'-DDT	0.040 - 0.040	0 / 2	--	--	0.0010	-- / --	40.0	YES

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 2
Screening Statistics - BTAG Fauna
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Aldrin	0.020 - 0.020	0 / 2	--	--	3.00	-- / --	0.0067	NO
Aroclor-1016	1.00 - 1.00	0 / 2	--	--	0.014	-- / --	71.4	YES
Aroclor-1221	2.00 - 2.00	0 / 2	--	--	0.014	-- / --	143	YES
Aroclor-1232	2.00 - 2.00	0 / 2	--	--	0.014	-- / --	143	YES
Aroclor-1242	1.00 - 1.00	0 / 2	--	--	0.014	-- / --	71.4	YES
Aroclor-1248	1.00 - 1.00	0 / 2	--	--	0.014	-- / --	71.4	YES
Aroclor-1254	0.50 - 0.50	0 / 2	--	--	0.014	-- / --	35.7	YES
Aroclor-1260	0.50 - 0.50	0 / 2	--	--	0.014	-- / --	35.7	YES
Chlordane	0.020 - 0.20	0 / 2	--	--	0.0043	-- / --	46.5	YES
Dieldrin	0.020 - 0.020	0 / 2	--	--	0.0019	-- / --	10.5	YES
Endosulfan I	0.020 - 0.020	0 / 2	--	--	0.056	-- / --	0.36	NO
Endosulfan II	0.040 - 0.040	0 / 2	--	--	0.056	-- / --	0.71	NO
Endosulfan sulfate	0.040 - 0.040	0 / 2	--	--	0.056	-- / --	0.71	NO
Endrin	0.040 - 0.040	0 / 2	--	--	0.0023	-- / --	17.4	YES
Endrin aldehyde	0.040 - 0.040	0 / 2	--	--	0.0023	-- / --	17.4	YES
Endrin ketone	0.020 - 0.020	0 / 2	--	--	0.0023	-- / --	8.70	YES
Heptachlor	0.020 - 0.020	0 / 2	--	--	0.0038	-- / --	5.26	YES
Heptachlor epoxide	0.020 - 0.020	0 / 2	--	--	0.0038	-- / --	5.26	YES
Methoxychlor	0.080 - 0.080	0 / 2	--	--	0.030	-- / --	2.67	YES
Toxaphene	1.00 - 1.00	0 / 2	--	--	2.00E-04	-- / --	5,000	YES
alpha-BHC	0.020 - 0.020	0 / 2	--	--	100	-- / --	2.00E-04	NO
beta-BHC	0.040 - 0.040	0 / 2	--	--	100	-- / --	4.00E-04	NO
delta-BHC	0.020 - 0.020	0 / 2	--	--	100	-- / --	2.00E-04	NO
gamma-BHC (Lindane)	0.020 - 0.020	0 / 2	--	--	0.080	-- / --	0.25	NO
Semivolatile Organic Compounds (UG/L)								
1,2,4-Trichlorobenzene	10.0 - 10.0	0 / 2	--	--	50.0	-- / --	0.20	NO
1,2-Dichlorobenzene	10.0 - 10.0	0 / 2	--	--	763	-- / --	0.013	NO
1,2-Diphenylhydrazine	10.0 - 10.0	0 / 2	--	--	270	-- / --	0.037	NO
1,3-Dichlorobenzene	10.0 - 10.0	0 / 2	--	--	763	-- / --	0.013	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 2
Screening Statistics - BTAG Fauna
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
1,4-Dichlorobenzene	10.0 - 10.0	0 / 2	--	--	763	-- / --	0.013	NO
2,2'-Oxybis(1-chloropropane)	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2,4,5-Trichlorophenol	50.0 - 50.0	0 / 2	--	--	63.0	-- / --	0.79	NO
2,4,6-Trichlorophenol	10.0 - 10.0	0 / 2	--	--	970	-- / --	0.010	NO
2,4-Dichlorophenol	10.0 - 10.0	0 / 2	--	--	365	-- / --	0.027	NO
2,4-Dimethylphenol	10.0 - 10.0	0 / 2	--	--	2,120	-- / --	0.0047	NO
2,4-Dinitrophenol	50.0 - 50.0	0 / 2	--	--	150	-- / --	0.33	NO
2,4-Dinitrotoluene	10.0 - 10.0	0 / 2	--	--	230	-- / --	0.043	NO
2,6-Dinitrotoluene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Chloronaphthalene	10.0 - 10.0	0 / 2	--	--	620	-- / --	0.016	NO
2-Chlorophenol	10.0 - 10.0	0 / 2	--	--	970	-- / --	0.010	NO
2-Methylnaphthalene	10.0 - 10.0	1 / 2	6.00	OW25-SW01-93A	NSV	-- / --	NSV	**YES**
2-Methylphenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Nitroaniline	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
2-Nitrophenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
3,3'-Dichlorobenzidine	20.0 - 20.0	0 / 2	--	--	NSV	-- / --	NSV	NO
3-Nitroaniline	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4,6-Dinitro-2-methylphenol	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Bromophenyl-phenylether	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Chloro-3-methylphenol	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Chloroaniline	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Chlorophenyl-phenylether	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Nitroaniline	50.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
4-Nitrophenol	50.0 - 50.0	0 / 2	--	--	150	-- / --	0.33	NO
Acenaphthene	10.0 - 10.0	0 / 2	--	--	520	-- / --	0.019	NO
Acenaphthylene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Aniline	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Anthracene	10.0 - 10.0	0 / 2	--	--	0.10	-- / --	100	YES
Benzo(a)anthracene	10.0 - 10.0	0 / 2	--	--	6.30	-- / --	1.59	YES

NSV - No Screening Value
1 - *Shaded cells indicate hazard quotient based on reporting limits*
2 - Macronutrient - Not considered to be a COPC

Table 2
Screening Statistics - BTAG Fauna
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Benzo(a)pyrene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(b)fluoranthene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(g,h,i)perylene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzo(k)fluoranthene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzoic acid	10.0 - 50.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Benzyl alcohol	10.0 - 10.0	0 / 2	--	--	460,000	-- / --	2.17E-05	NO
Butylbenzylphthalate	10.0 - 10.0	0 / 2	--	--	3.00	-- / --	3.33	YES
Chrysene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Di-n-butylphthalate	10.0 - 10.0	0 / 2	--	--	0.30	-- / --	33.3	YES
Di-n-octylphthalate	10.0 - 10.0	0 / 2	--	--	0.30	-- / --	33.3	YES
Dibenz(a,h)anthracene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Dibenzofuran	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Diethylphthalate	10.0 - 10.0	0 / 2	--	--	3.00	-- / --	3.33	YES
Dimethyl phthalate	10.0 - 10.0	0 / 2	--	--	3.00	-- / --	3.33	YES
Fluoranthene	10.0 - 10.0	0 / 2	--	--	3,980	-- / --	0.0025	NO
Fluorene	10.0 - 10.0	0 / 2	--	--	430	-- / --	0.023	NO
Hexachlorobenzene	10.0 - 10.0	0 / 2	--	--	3.68	-- / --	2.72	YES
Hexachlorobutadiene	10.0 - 10.0	0 / 2	--	--	9.30	-- / --	1.08	YES
Hexachlorocyclopentadiene	10.0 - 10.0	0 / 2	--	--	5.20	-- / --	1.92	YES
Hexachloroethane	10.0 - 10.0	0 / 2	--	--	540	-- / --	0.019	NO
Indeno(1,2,3-cd)pyrene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Isophorone	10.0 - 10.0	0 / 2	--	--	117,000	-- / --	8.55E-05	NO
Naphthalene	10.0 - 10.0	1 / 2	3.00	OW25-SW01-93A	100	0 / 2	0.030	NO
Nitrobenzene	10.0 - 10.0	0 / 2	--	--	27,000	-- / --	3.70E-04	NO
Pentachlorophenol	50.0 - 50.0	0 / 2	--	--	13.0	-- / --	3.85	YES
Phenanthrene	10.0 - 10.0	0 / 2	--	--	6.30	-- / --	1.59	YES
Phenol	10.0 - 10.0	0 / 2	--	--	79.0	-- / --	0.13	NO
Pyrene	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
bis(2-Chloroethoxy)methane	10.0 - 50.0	0 / 2	--	--	11,000	-- / --	0.0045	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 2
Screening Statistics - BTAG Fauna
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
bis(2-Chloroethyl)ether	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
bis(2-Ethylhexyl)phthalate	10.0 - 10.0	1 / 2	2.00	OW25-SW02-93A	30.0	0 / 2	0.067	NO
n-Nitroso-di-n-propylamine	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
n-Nitrosodimethylamine	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
n-Nitrosodiphenylamine	10.0 - 10.0	0 / 2	--	--	5,850	-- / --	0.0017	NO
Volatile Organic Compounds (UG/L)								
1,1,1-Trichloroethane	5.00 - 5.00	0 / 2	--	--	9,400	-- / --	5.32E-04	NO
1,1,2,2-Tetrachloroethane	5.00 - 5.00	0 / 2	--	--	2,400	-- / --	0.0021	NO
1,1,2-Trichloroethane	5.00 - 5.00	0 / 2	--	--	9,400	-- / --	5.32E-04	NO
1,1-Dichloroethane	5.00 - 5.00	0 / 2	--	--	160,000	-- / --	3.13E-05	NO
1,1-Dichloroethene	5.00 - 5.00	0 / 2	--	--	11,600	-- / --	4.31E-04	NO
1,2,4-Trichlorobenzene	5.00 - 5.00	0 / 1	--	--	50.0	-- / --	0.10	NO
1,2-Dibromo-3-chloropropane	10.0 - 10.0	0 / 1	--	--	NSV	-- / --	NSV	NO
1,2-Dibromoethane	5.00 - 5.00	0 / 1	--	--	18,000	-- / --	2.78E-04	NO
1,2-Dichlorobenzene	5.00 - 5.00	0 / 2	--	--	763	-- / --	0.0066	NO
1,2-Dichloroethane	5.00 - 5.00	0 / 2	--	--	20,000	-- / --	2.50E-04	NO
1,2-Dichloroethene (total)	5.00 - 5.00	0 / 1	--	--	11,600	-- / --	4.31E-04	NO
1,2-Dichloropropane	5.00 - 5.00	0 / 2	--	--	5,700	-- / --	8.77E-04	NO
1,3-Dichlorobenzene	5.00 - 5.00	0 / 2	--	--	763	-- / --	0.0066	NO
1,4-Dichlorobenzene	5.00 - 5.00	0 / 2	--	--	763	-- / --	0.0066	NO
2-Butanone	10.0 - 10.0	0 / 2	--	--	3,220,000	-- / --	3.11E-06	NO
2-Chloroethyl vinyl ether	10.0 - 10.0	0 / 1	--	--	NSV	-- / --	NSV	NO
2-Hexanone	10.0 - 10.0	0 / 2	--	--	428,000	-- / --	2.34E-05	NO
4-Methyl-2-pentanone	5.00 - 10.0	0 / 2	--	--	460,000	-- / --	2.17E-05	NO
Acetone	10.0 - 10.0	1 / 2	10.0	OW25-SW01-93A	9,000,000	0 / 2	1.11E-06	NO
Benzene	5.00 - 5.00	0 / 2	--	--	5,300	-- / --	9.43E-04	NO
Bromochloromethane	5.00 - 5.00	0 / 1	--	--	11,000	-- / --	4.55E-04	NO
Bromodichloromethane	5.00 - 5.00	0 / 2	--	--	11,000	-- / --	4.55E-04	NO
Bromoform	5.00 - 5.00	0 / 2	--	--	11,000	-- / --	4.55E-04	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 2
Screening Statistics - BTAG Fauna
Screening Statistics - SWMU 25 - Surface Water
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Bromomethane	5.00 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Carbon disulfide	5.00 - 5.00	0 / 2	--	--	2.00	-- / --	2.50	YES
Carbon tetrachloride	5.00 - 5.00	0 / 2	--	--	35,200	-- / --	1.42E-04	NO
Chlorobenzene	5.00 - 5.00	0 / 2	--	--	50.0	-- / --	0.10	NO
Chloroethane	10.0 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Chloroform	5.00 - 5.00	0 / 2	--	--	1,240	-- / --	0.0040	NO
Chloromethane	5.00 - 10.0	0 / 2	--	--	NSV	-- / --	NSV	NO
Dibromochloromethane	5.00 - 5.00	0 / 2	--	--	11,000	-- / --	4.55E-04	NO
Ethylbenzene	5.00 - 5.00	0 / 2	--	--	32,000	-- / --	1.56E-04	NO
Methylene chloride	5.00 - 5.00	0 / 2	--	--	11,000	-- / --	4.55E-04	NO
Styrene	5.00 - 5.00	0 / 2	--	--	NSV	-- / --	NSV	NO
Tetrachloroethene	5.00 - 5.00	0 / 2	--	--	840	-- / --	0.0060	NO
Toluene	5.00 - 5.00	1 / 2	2.00	OW25-SW02-93A	17,000	0 / 2	1.18E-04	NO
Trichloroethene	5.00 - 5.00	0 / 2	--	--	21,900	-- / --	2.28E-04	NO
Trichlorofluoromethane(Freon-11)	5.00 - 5.00	0 / 1	--	--	11,000	-- / --	4.55E-04	NO
Vinyl acetate	10.0 - 10.0	0 / 1	--	--	NSV	-- / --	NSV	NO
Vinyl chloride	2.00 - 2.00	0 / 2	--	--	11,600	-- / --	1.72E-04	NO
Xylene, total	5.00 - 5.00	0 / 2	--	--	6,000	-- / --	8.33E-04	NO
cis-1,2-Dichloroethene	5.00 - 5.00	0 / 1	--	--	11,600	-- / --	4.31E-04	NO
cis-1,3-Dichloropropene	5.00 - 5.00	0 / 2	--	--	244	-- / --	0.020	NO
trans-1,2-Dichloroethene	5.00 - 5.00	0 / 1	--	--	11,600	-- / --	4.31E-04	NO
trans-1,3-Dichloropropene	5.00 - 5.00	0 / 2	--	--	244	-- / --	0.020	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 3
Screening Statistics - BTAG Flora
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Inorganics (MG/KG)								
Aluminum	-- - --	5 / 5	19,000	OW25-SD06-94A	NSV	-- / --	NSV	YES
Antimony	3.10 - 4.50	0 / 6	--	--	NSV	-- / --	NSV	NO
Arsenic	0.91 - 2.00	1 / 6	0.91	OW25-SD02-93A	NSV	-- / --	NSV	YES
Barium	7.50 - 52.5	3 / 6	98.8	OW25-SD04-94A	NSV	-- / --	NSV	YES
Beryllium	0.070 - 1.14	1 / 6	0.17	OW25-SD02-93A	NSV	-- / --	NSV	YES
Cadmium	0.65 - 1.10	1 / 6	1.30	OW25-SD01-93A	5.10	0 / 6	0.25	NO
Calcium [2]	73.2 - 789	2 / 5	3,900	OW25-SD04-94A	NSV	-- / --	NSV	NO
Chromium	4.30 - 4.30	6 / 6	21.4	OW25-SD06-94A	5.00	4 / 6	4.28	YES
Cobalt	0.75 - 3.00	1 / 6	1.20	OW25-SD02-93A	NSV	-- / --	NSV	YES
Copper	1.20 - 7.60	3 / 6	746	OW25-SD01-93A	NSV	-- / --	NSV	YES
Cyanide	0.080 - 0.080	0 / 1	--	--	NSV	-- / --	NSV	NO
Iron	-- - --	5 / 5	7,780	OW25-SD06-94A	NSV	-- / --	NSV	YES
Lead	7.20 - 7.20	6 / 6	21.7	OW25-SD05-94A	NSV	-- / --	NSV	YES
Magnesium [2]	2.05 - 873	1 / 5	1,400	OW25-SD06-94A	NSV	-- / --	NSV	NO
Manganese	-- - --	5 / 5	168	OW25-SD04-94A	NSV	-- / --	NSV	YES
Mercury	0.030 - 0.070	0 / 6	--	--	0.15	-- / --	0.47	NO
Nickel	2.20 - 7.00	0 / 6	--	--	20.9	-- / --	0.33	NO
Potassium [2]	218 - 654	0 / 5	--	--	NSV	-- / --	NSV	NO
Selenium	0.41 - 0.55	0 / 6	--	--	NSV	-- / --	NSV	NO
Silver	0.31 - 0.93	0 / 6	--	--	NSV	-- / --	NSV	NO
Sodium [2]	125 - 187	1 / 5	4,610	OW25-SD01-93A	NSV	-- / --	NSV	NO
Thallium	0.36 - 0.55	0 / 6	--	--	NSV	-- / --	NSV	NO
Vanadium	3.70 - 15.6	2 / 6	32.7	OW25-SD06-94A	NSV	-- / --	NSV	YES
Zinc	9.00 - 9.00	5 / 6	723	OW25-SD01-93A	NSV	-- / --	NSV	YES
Pesticide/Polychlorinated Biphenyls (UG/KG)								
4,4'-DDD	1.50 - 37.0	1 / 9	14.0	OW25-SD05-94A	NSV	-- / --	NSV	YES
4,4'-DDE	0.80 - 37.0	2 / 9	27.0	OW25-SD01-93A	2.20	2 / 9	12.3	YES

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 3
Screening Statistics - BTAG Flora
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
4,4'-DDT	1.50 - 37.0	2 / 9	25.0	OW25-SD01-93A	1.58	2 / 9	15.8	YES
Aldrin	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Aroclor-1016	39.0 - 410	0 / 3	--	--	22.7	-- / --	18.1	YES
Aroclor-1221	80.0 - 840	0 / 3	--	--	22.7	-- / --	37.0	YES
Aroclor-1232	80.0 - 840	0 / 3	--	--	22.7	-- / --	37.0	YES
Aroclor-1242	39.0 - 410	0 / 3	--	--	22.7	-- / --	18.1	YES
Aroclor-1248	39.0 - 410	0 / 3	--	--	22.7	-- / --	18.1	YES
Aroclor-1254	20.0 - 210	0 / 3	--	--	22.7	-- / --	9.25	YES
Aroclor-1260	20.0 - 210	0 / 3	--	--	22.7	-- / --	9.25	YES
Chlordane	8.00 - 84.0	0 / 6	--	--	NSV	-- / --	NSV	NO
Dieldrin	0.80 - 37.0	1 / 9	56.0	OW25-SD01-93A	NSV	-- / --	NSV	YES
Endosulfan I	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Endosulfan II	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Endosulfan sulfate	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Endrin	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Endrin aldehyde	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Endrin ketone	7.70 - 37.0	0 / 5	--	--	NSV	-- / --	NSV	NO
Heptachlor	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Heptachlor epoxide	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
Methoxychlor	3.20 - 190	0 / 9	--	--	NSV	-- / --	NSV	NO
Toxaphene	39.0 - 930	0 / 9	--	--	NSV	-- / --	NSV	NO
alpha-BHC	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
alpha-Chlordane	12.0 - 19.0	0 / 3	--	--	NSV	-- / --	NSV	NO
beta-BHC	1.50 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
delta-BHC	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
gamma-BHC (Lindane)	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	NO
gamma-Chlordane	12.0 - 19.0	0 / 3	--	--	NSV	-- / --	NSV	NO
Semivolatile Organic Compounds (UG/KG)								
1,2,4-Trichlorobenzene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 3
Screening Statistics - BTAG Flora
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
1,2-Dichlorobenzene	390 - 410	0 / 3	--	--	35.0	-- / --	11.7	YES
1,2-Diphenylhydrazine	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
1,3-Dichlorobenzene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
1,4-Dichlorobenzene	390 - 410	0 / 3	--	--	110	-- / --	3.73	YES
2,2'-Oxybis(1-chloropropane)	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2,4,5-Trichlorophenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO
2,4,6-Trichlorophenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2,4-Dichlorophenol	400 - 400	0 / 1	--	--	NSV	-- / --	NSV	NO
2,4-Dimethylphenol	390 - 410	0 / 3	--	--	29.0	-- / --	14.1	YES
2,4-Dinitrophenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO
2,4-Dinitrotoluene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2,6-Dinitrotoluene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2-Chloronaphthalene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2-Chlorophenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2-Methylnaphthalene	390 - 410	0 / 3	--	--	70.0	-- / --	5.86	YES
2-Methylphenol	390 - 410	0 / 3	--	--	63.0	-- / --	6.51	YES
2-Nitroaniline	390 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO
2-Nitrophenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
2-Picoline	390 - 410	0 / 2	--	--	NSV	-- / --	NSV	NO
3,3'-Dichlorobenzidine	790 - 820	0 / 3	--	--	NSV	-- / --	NSV	NO
3-Nitroaniline	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO
4,6-Dinitro-2-methylphenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO
4-Bromophenyl-phenylether	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
4-Chloro-3-methylphenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
4-Chloroaniline	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
4-Chlorophenyl-phenylether	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
4-Methylphenol	390 - 410	0 / 2	--	--	670	-- / --	0.61	NO
4-Nitroaniline	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO
4-Nitrophenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	NO

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 3
Screening Statistics - BTAG Flora
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Acenaphthene	390 - 410	0 / 3	--	--	16.0	-- / --	25.6	YES
Acenaphthylene	390 - 410	0 / 3	--	--	44.0	-- / --	9.32	YES
Aniline	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Anthracene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Benzo(a)anthracene	390 - 400	1 / 3	75.0	OW25-SD01-93A	261	0 / 3	0.29	NO
Benzo(a)pyrene	390 - 410	0 / 3	--	--	430	-- / --	0.95	NO
Benzo(b)fluoranthene	390 - 390	2 / 3	97.0	OW25-SD01-93A	3,200	0 / 3	0.030	NO
Benzo(g,h,i)perylene	390 - 410	0 / 3	--	--	670	-- / --	0.61	NO
Benzo(k)fluoranthene	390 - 400	1 / 3	88.0	OW25-SD01-93A	NSV	-- / --	NSV	YES
Benzoic acid	1,900 - 2,000	0 / 3	--	--	650	-- / --	3.08	YES
Benzyl alcohol	390 - 410	0 / 3	--	--	57.0	-- / --	7.19	YES
Butylbenzylphthalate	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Chrysene	390 - 400	1 / 3	120	OW25-SD01-93A	384	0 / 3	0.31	NO
Di-n-butylphthalate	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Di-n-octylphthalate	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Dibenz(a,h)anthracene	390 - 410	0 / 3	--	--	63.4	-- / --	6.47	YES
Dibenzofuran	390 - 410	0 / 3	--	--	540	-- / --	0.76	NO
Diethylphthalate	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Dimethyl phthalate	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Fluoranthene	390 - 390	2 / 3	120	OW25-SD02-93A	600	0 / 3	0.20	NO
Fluorene	390 - 410	0 / 3	--	--	19.0	-- / --	21.6	YES
Hexachlorobenzene	390 - 410	0 / 3	--	--	22.0	-- / --	18.6	YES
Hexachlorobutadiene	390 - 410	0 / 3	--	--	11.0	-- / --	37.3	YES
Hexachlorocyclopentadiene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Hexachloroethane	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	NO
Indeno(1,2,3-cd)pyrene	390 - 410	0 / 3	--	--	600	-- / --	0.68	NO
Isophorone	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
Naphthalene	390 - 410	0 / 3	--	--	160	-- / --	2.56	YES
Nitrobenzene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 3
Screening Statistics - BTAG Flora
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Pentachlorophenol	1,900 - 2,000	0 / 3	--	--	360	-- / --	5.56	YES
Phenanthrene	390 - 410	1 / 3	93.0	OW25-SD02-93A	240	0 / 3	0.39	NO
Phenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
Pyrene	390 - 390	2 / 3	110	OW25-SD01-93A	665	0 / 3	0.17	NO
bis(2-Chloroethoxy)methane	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
bis(2-Chloroethyl)ether	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
bis(2-Ethylhexyl)phthalate	390 - 400	1 / 3	55.0	OW25-SD01-93A	NSV	-- / --	NSV	--
n-Nitroso-di-n-propylamine	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
n-Nitrosodimethylamine	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
n-Nitrosodiphenylamine	390 - 410	0 / 3	--	--	28.0	-- / --	14.6	YES
Volatile Organic Compounds (UG/KG)								
1,1,1-Trichloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,1,2,2-Tetrachloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,1,2-Trichloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,1-Dichloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,1-Dichloroethene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,2-Dichlorobenzene	6.00 - 6.00	0 / 3	--	--	35.0	-- / --	0.17	NO
1,2-Dichloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,2-Dichloroethene (total)	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,2-Dichloropropane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,3-Dichlorobenzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,4-Dichlorobenzene	6.00 - 6.00	0 / 3	--	--	110	-- / --	0.055	NO
2-Butanone	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
2-Chloroethyl vinyl ether	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
2-Hexanone	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
4-Methyl-2-pentanone	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Acetone	12.0 - 39.0	2 / 3	20.0	OW25-SD03-93A	NSV	-- / --	NSV	--
Benzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Bromodichloromethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 3
Screening Statistics - BTAG Flora
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Bromoform	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Bromomethane	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Carbon disulfide	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Carbon tetrachloride	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Chlorobenzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Chloroethane	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Chloroform	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Chloromethane	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Dibromochloromethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Dichlorodifluoromethane(Freon-12)	12.0 - 12.0	0 / 1	--	--	NSV	-- / --	NSV	--
Ethylbenzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Methylene chloride	10.0 - 18.0	0 / 3	--	--	NSV	-- / --	NSV	--
Styrene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Tetrachloroethene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Toluene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Trichloroethene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Trichlorofluoromethane(Freon-11)	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Vinyl acetate	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Vinyl chloride	2.00 - 2.00	0 / 3	--	--	NSV	-- / --	NSV	--
Xylene, total	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
cis-1,3-Dichloropropene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
trans-1,3-Dichloropropene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 4
Screening Statistics - BTAG Fauna
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Inorganics (MG/KG)								
Aluminum	-- - --	5 / 5	19,000	OW25-SD06-94A	NSV	-- / --	NSV	--
Antimony	3.10 - 4.50	0 / 6	--	--	150	-- / --	0.030	NO
Arsenic	0.91 - 2.00	1 / 6	0.91	OW25-SD02-93A	8.20	0 / 6	0.11	NO
Barium	7.50 - 52.5	3 / 6	98.8	OW25-SD04-94A	NSV	-- / --	NSV	--
Beryllium	0.070 - 1.14	1 / 6	0.17	OW25-SD02-93A	NSV	-- / --	NSV	--
Cadmium	0.65 - 1.10	1 / 6	1.30	OW25-SD01-93A	1.20	1 / 6	1.08	**YES**
Calcium [2]	73.2 - 789	2 / 5	3,900	OW25-SD04-94A	NSV	-- / --	NSV	NO
Chromium	4.30 - 4.30	6 / 6	21.4	OW25-SD06-94A	260	0 / 6	0.082	NO
Cobalt	0.75 - 3.00	1 / 6	1.20	OW25-SD02-93A	NSV	-- / --	NSV	--
Copper	1.20 - 7.60	3 / 6	746	OW25-SD01-93A	34.0	1 / 6	21.9	**YES**
Cyanide	0.080 - 0.080	0 / 1	--	--	NSV	-- / --	NSV	NO
Iron	-- - --	5 / 5	7,780	OW25-SD06-94A	NSV	-- / --	NSV	--
Lead	7.20 - 7.20	6 / 6	21.7	OW25-SD05-94A	46.7	0 / 6	0.46	NO
Magnesium [2]	2.05 - 873	1 / 5	1,400	OW25-SD06-94A	NSV	-- / --	NSV	NO
Manganese	-- - --	5 / 5	168	OW25-SD04-94A	NSV	-- / --	NSV	--
Mercury	0.030 - 0.070	0 / 6	--	--	0.15	-- / --	0.47	NO
Nickel	2.20 - 7.00	0 / 6	--	--	20.9	-- / --	0.33	NO
Potassium [2]	218 - 654	0 / 5	--	--	NSV	-- / --	NSV	NO
Selenium	0.41 - 0.55	0 / 6	--	--	NSV	-- / --	NSV	--
Silver	0.31 - 0.93	0 / 6	--	--	1.00	-- / --	0.93	NO
Sodium [2]	125 - 187	1 / 5	4,610	OW25-SD01-93A	NSV	-- / --	NSV	NO
Thallium	0.36 - 0.55	0 / 6	--	--	NSV	-- / --	NSV	--
Vanadium	3.70 - 15.6	2 / 6	32.7	OW25-SD06-94A	NSV	-- / --	NSV	--
Zinc	9.00 - 9.00	5 / 6	723	OW25-SD01-93A	150	1 / 6	4.82	**YES**
Pesticide/Polychlorinated Biphenyls (UG/KG)								
4,4'-DDD	1.50 - 37.0	1 / 9	14.0	OW25-SD05-94A	16.0	0 / 9	0.88	NO
4,4'-DDE	0.80 - 37.0	2 / 9	27.0	OW25-SD01-93A	2.20	2 / 9	12.3	**YES**

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 4
Screening Statistics - BTAG Fauna
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
4,4'-DDT	1.50 - 37.0	2 / 9	25.0	OW25-SD01-93A	1.58	2 / 9	15.8	YES
Aldrin	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
Aroclor-1016	39.0 - 410	0 / 3	--	--	22.7	-- / --	18.1	YES
Aroclor-1221	80.0 - 840	0 / 3	--	--	22.7	-- / --	37.0	YES
Aroclor-1232	80.0 - 840	0 / 3	--	--	22.7	-- / --	37.0	YES
Aroclor-1242	39.0 - 410	0 / 3	--	--	22.7	-- / --	18.1	YES
Aroclor-1248	39.0 - 410	0 / 3	--	--	22.7	-- / --	18.1	YES
Aroclor-1254	20.0 - 210	0 / 3	--	--	22.7	-- / --	9.25	YES
Aroclor-1260	20.0 - 210	0 / 3	--	--	22.7	-- / --	9.25	YES
Chlordane	8.00 - 84.0	0 / 6	--	--	NSV	-- / --	NSV	--
Dieldrin	0.80 - 37.0	1 / 9	56.0	OW25-SD01-93A	NSV	-- / --	NSV	--
Endosulfan I	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
Endosulfan II	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	--
Endosulfan sulfate	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	--
Endrin	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	--
Endrin aldehyde	1.50 - 37.0	0 / 9	--	--	NSV	-- / --	NSV	--
Endrin ketone	7.70 - 37.0	0 / 5	--	--	NSV	-- / --	NSV	--
Heptachlor	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
Heptachlor epoxide	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
Methoxychlor	3.20 - 190	0 / 9	--	--	NSV	-- / --	NSV	--
Toxaphene	39.0 - 930	0 / 9	--	--	NSV	-- / --	NSV	--
alpha-BHC	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
alpha-Chlordane	12.0 - 19.0	0 / 3	--	--	NSV	-- / --	NSV	--
beta-BHC	1.50 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
delta-BHC	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
gamma-BHC (Lindane)	0.80 - 19.0	0 / 9	--	--	NSV	-- / --	NSV	--
gamma-Chlordane	12.0 - 19.0	0 / 3	--	--	NSV	-- / --	NSV	--
Semivolatile Organic Compounds (UG/KG)								
1,2,4-Trichlorobenzene	390 - 410	0 / 3	--	--	40.0	-- / --	10.3	YES

NSV - No Screening Value
1 - *Shaded cells indicate hazard quotient based on reporting limits*
2 - Macronutrient - Not considered to be a COPC

Table 4
Screening Statistics - BTAG Fauna
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
1,2-Dichlorobenzene	390 - 410	0 / 3	--	--	35.0	-- / --	11.7	YES
1,2-Diphenylhydrazine	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
1,3-Dichlorobenzene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
1,4-Dichlorobenzene	390 - 410	0 / 3	--	--	110	-- / --	3.73	YES
2,2'-Oxybis(1-chloropropane)	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2,4,5-Trichlorophenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--
2,4,6-Trichlorophenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2,4-Dichlorophenol	400 - 400	0 / 1	--	--	NSV	-- / --	NSV	--
2,4-Dimethylphenol	390 - 410	0 / 3	--	--	29.0	-- / --	14.1	YES
2,4-Dinitrophenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--
2,4-Dinitrotoluene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2,6-Dinitrotoluene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2-Chloronaphthalene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2-Chlorophenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2-Methylnaphthalene	390 - 410	0 / 3	--	--	70.0	-- / --	5.86	YES
2-Methylphenol	390 - 410	0 / 3	--	--	63.0	-- / --	6.51	YES
2-Nitroaniline	390 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--
2-Nitrophenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
2-Picoline	390 - 410	0 / 2	--	--	NSV	-- / --	NSV	--
3,3'-Dichlorobenzidine	790 - 820	0 / 3	--	--	NSV	-- / --	NSV	--
3-Nitroaniline	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--
4,6-Dinitro-2-methylphenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--
4-Bromophenyl-phenylether	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
4-Chloro-3-methylphenol	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
4-Chloroaniline	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
4-Chlorophenyl-phenylether	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
4-Methylphenol	390 - 410	0 / 2	--	--	670	-- / --	0.61	NO
4-Nitroaniline	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--
4-Nitrophenol	1,900 - 2,000	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 4
Screening Statistics - BTAG Fauna
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Acenaphthene	390 - 410	0 / 3	--	--	16.0	-- / --	25.6	YES
Acenaphthylene	390 - 410	0 / 3	--	--	44.0	-- / --	9.32	YES
Aniline	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
Anthracene	390 - 410	0 / 3	--	--	85.3	-- / --	4.81	YES
Benzo(a)anthracene	390 - 400	1 / 3	75.0	OW25-SD01-93A	261	0 / 3	0.29	NO
Benzo(a)pyrene	390 - 410	0 / 3	--	--	430	-- / --	0.95	NO
Benzo(b)fluoranthene	390 - 390	2 / 3	97.0	OW25-SD01-93A	3,200	0 / 3	0.030	NO
Benzo(g,h,i)perylene	390 - 410	0 / 3	--	--	670	-- / --	0.61	NO
Benzo(k)fluoranthene	390 - 400	1 / 3	88.0	OW25-SD01-93A	NSV	-- / --	NSV	--
Benzoic acid	1,900 - 2,000	0 / 3	--	--	650	-- / --	3.08	YES
Benzyl alcohol	390 - 410	0 / 3	--	--	57.0	-- / --	7.19	YES
Butylbenzylphthalate	390 - 410	0 / 3	--	--	63.0	-- / --	6.51	YES
Chrysene	390 - 400	1 / 3	120	OW25-SD01-93A	384	0 / 3	0.31	NO
Di-n-butylphthalate	390 - 410	0 / 3	--	--	1,400	-- / --	0.29	NO
Di-n-octylphthalate	390 - 410	0 / 3	--	--	6,200	-- / --	0.066	NO
Dibenz(a,h)anthracene	390 - 410	0 / 3	--	--	63.4	-- / --	6.47	YES
Dibenzofuran	390 - 410	0 / 3	--	--	540	-- / --	0.76	NO
Diethylphthalate	390 - 410	0 / 3	--	--	200	-- / --	2.05	YES
Dimethyl phthalate	390 - 410	0 / 3	--	--	71.0	-- / --	5.77	YES
Fluoranthene	390 - 390	2 / 3	120	OW25-SD02-93A	600	0 / 3	0.20	NO
Fluorene	390 - 410	0 / 3	--	--	19.0	-- / --	21.6	YES
Hexachlorobenzene	390 - 410	0 / 3	--	--	22.0	-- / --	18.6	YES
Hexachlorobutadiene	390 - 410	0 / 3	--	--	11.0	-- / --	37.3	YES
Hexachlorocyclopentadiene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
Hexachloroethane	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
Indeno(1,2,3-cd)pyrene	390 - 410	0 / 3	--	--	600	-- / --	0.68	NO
Isophorone	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
Naphthalene	390 - 410	0 / 3	--	--	160	-- / --	2.56	YES
Nitrobenzene	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 4
Screening Statistics - BTAG Fauna
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Pentachlorophenol	1,900 - 2,000	0 / 3	--	--	360	-- / --	5.56	YES
Phenanthrene	390 - 410	1 / 3	93.0	OW25-SD02-93A	240	0 / 3	0.39	NO
Phenol	390 - 410	0 / 3	--	--	420	-- / --	0.98	NO
Pyrene	390 - 390	2 / 3	110	OW25-SD01-93A	665	0 / 3	0.17	NO
bis(2-Chloroethoxy)methane	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
bis(2-Chloroethyl)ether	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
bis(2-Ethylhexyl)phthalate	390 - 400	1 / 3	55.0	OW25-SD01-93A	1,300	0 / 3	0.042	NO
n-Nitroso-di-n-propylamine	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
n-Nitrosodimethylamine	390 - 410	0 / 3	--	--	NSV	-- / --	NSV	--
n-Nitrosodiphenylamine	390 - 410	0 / 3	--	--	28.0	-- / --	14.6	YES
Volatile Organic Compounds (UG/KG)								
1,1,1-Trichloroethane	6.00 - 6.00	0 / 3	--	--	31.0	-- / --	0.19	NO
1,1,2,2-Tetrachloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,1,2-Trichloroethane	6.00 - 6.00	0 / 3	--	--	31.0	-- / --	0.19	NO
1,1-Dichloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,1-Dichloroethene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,2-Dichlorobenzene	6.00 - 6.00	0 / 3	--	--	35.0	-- / --	0.17	NO
1,2-Dichloroethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,2-Dichloroethene (total)	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,2-Dichloropropane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,3-Dichlorobenzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
1,4-Dichlorobenzene	6.00 - 6.00	0 / 3	--	--	110	-- / --	0.055	NO
2-Butanone	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
2-Chloroethyl vinyl ether	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
2-Hexanone	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
4-Methyl-2-pentanone	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Acetone	12.0 - 39.0	2 / 3	20.0	OW25-SD03-93A	NSV	-- / --	NSV	--
Benzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Bromodichloromethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table 4
Screening Statistics - BTAG Fauna
SWMU 25 - Sediment
NAS Oceana, Virginia Beach, Virginia

Chemical	Reporting Limit Range	Frequency of Detection	Maximum Concentration Detected	Sample ID of Maximum Concentration	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient[1]	COPC?
Bromoform	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Bromomethane	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Carbon disulfide	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Carbon tetrachloride	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Chlorobenzene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Chloroethane	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Chloroform	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Chloromethane	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Dibromochloromethane	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Dichlorodifluoromethane(Freon-12)	12.0 - 12.0	0 / 1	--	--	NSV	-- / --	NSV	--
Ethylbenzene	6.00 - 6.00	0 / 3	--	--	10.0	-- / --	0.60	NO
Methylene chloride	10.0 - 18.0	0 / 3	--	--	NSV	-- / --	NSV	--
Styrene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Tetrachloroethene	6.00 - 6.00	0 / 3	--	--	57.0	-- / --	0.11	NO
Toluene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Trichloroethene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Trichlorofluoromethane(Freon-11)	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
Vinyl acetate	12.0 - 12.0	0 / 3	--	--	NSV	-- / --	NSV	--
Vinyl chloride	2.00 - 2.00	0 / 3	--	--	NSV	-- / --	NSV	--
Xylene, total	6.00 - 6.00	0 / 3	--	--	40.0	-- / --	0.15	NO
cis-1,3-Dichloropropene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--
trans-1,3-Dichloropropene	6.00 - 6.00	0 / 3	--	--	NSV	-- / --	NSV	--

NSV - No Screening Value
1 - Shaded cells indicate hazard quotient based on reporting limits
2 - Macronutrient - Not considered to be a COPC

Table

Summary of Maximum Hazard Quotients for Food Web Exposures

SWMU 25

NAS Oceana, Virginia Beach, Virginia

Chemical	Raccoon		Mink		Muskrat		Belted kingfisher		Mallard	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Inorganics										
Arsenic	0.18	0.02	0.06	<0.01	0.81	0.08	<0.01	<0.01	0.03	0.01
Cadmium	0.14	0.01	0.03	<0.01	0.40	0.04	0.11	<0.01	0.38	0.03
Chromium	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.26	0.05	0.17	0.03
Copper	7.30	5.64	1.49	1.15	4.29	3.32	4.22	3.21	2.95	2.25
Lead	0.03	<0.01	0.01	<0.01	0.14	0.01	0.12	0.01	1.23	0.12
Mercury	0.04	0.03	0.10	0.06	1.03	0.21	8.83	0.88	6.74	0.67
Nickel	<0.01	<0.01	<0.01	<0.01	0.02	0.01	0.02	0.01	0.02	0.01
Selenium	0.15	0.09	0.13	0.08	0.79	0.48	0.27	0.13	0.51	0.26
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	3.03	0.30	0.64	0.06	0.80	0.40	8.64	0.96	14.11	1.56
Pesticides/PCBs										
4,4'-DDD	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
4,4'-DDE	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.72	0.07	0.01	<0.01
4,4'-DDT	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.36	0.04	<0.01	<0.01
Aldrin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Chlordane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aroclor-1016	0.09	0.04	0.16	0.07	<0.01	<0.01	2.53	0.25	0.30	0.03
Aroclor-1221	3.82	0.38	6.64	0.66	0.21	0.02	5.19	0.52	0.64	0.06
Aroclor-1232	3.82	0.38	6.64	0.66	0.17	0.02	5.19	0.52	0.63	0.06
Aroclor-1242	1.86	0.19	3.24	0.32	0.07	<0.01	2.53	0.25	0.30	0.03
Aroclor-1248	0.10	<0.01	0.17	0.02	<0.01	<0.01	5.77	0.58	0.69	0.07
Aroclor-1254	0.47	0.10	0.82	0.17	0.03	<0.01	2.96	0.30	0.35	0.04
Aroclor-1260	0.47	0.10	0.82	0.17	0.03	<0.01	2.96	0.30	0.35	0.04
beta-BHC	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	0.05	<0.01	0.13	0.01	0.03	<0.01	0.14	0.01	0.02	<0.01
Endosulfan I	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan II	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
Gamma-BHC (Lindane)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Gamma-Chlordane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Table 5
Summary of Maximum Hazard Quotients for Food Web Exposures
SWMU 25
NAS Oceana, Virginia Beach, Virginia

Chemical	Raccoon		Mink		Muskrat		Belted kingfisher		Mallard	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Heptachlor Epoxide	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toxaphene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.59	0.06	0.06	<0.01
Semivolatile Organic Compounds										
1,2,4-Trichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Bromophenyl-Phenylether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-Phenylether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Anthracene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)anthracene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)pyrene	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(b)fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(g,h,i)perylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chrysene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexachlorobutadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.01	<0.01	<0.01
Hexachlorobenzene	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	1.02	0.10	0.12	0.01
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pentachlorophenol	0.01	<0.01	0.03	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenanthrene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pyrene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Volatile Organic Compounds										
Tetrachloroethene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA

Table 6
Summary of COPCs - SWMU 25
NAS Oceana, Virginia Beach, VA

Chemical	Surface Water						Sediment						
	Flora			Fauna			Flora			Fauna			
	MD	MRL	NSV	MD	MRL	NSV	MD	MRL	NSV	MD	MRL	NSV	Food Web
Inorganics													
Aluminum					X				X			X	
Arsenic									X				
Barium									X			X	
Beryllium									X			X	
Cadmium		X			X					X			
Chromium		X					X						
Cobalt									X			X	
Copper									X	X			X
Iron					X				X			X	
Lead									X				X
Manganese			X						X			X	
Mercury		X			X								
Silver		X			X								
Vanadium									X			X	
Zinc									X	X			X
Pesticides/PCBs													
4,4'-DDD									X				
4,4'-DDE							X			X			
4,4'-DDT					X					X			
Aroclor-1016		X			X			X			X		X
Aroclor-1221		X			X			X			X		X
Aroclor-1232		X			X			X			X		X
Aroclor-1242		X			X			X			X		X
Aroclor-1248		X			X			X			X		X
Aroclor-1254		X			X			X			X		X
Aroclor-1260		X			X			X			X		X
Chlordane		X			X								
Dieldrin		X			X				X			X	
Endrin		X			X								
Endrin aldehyde		X			X								
Endrin ketone		X			X								
Heptachlor		X			X								
Heptachlor epoxide		X			X								
Methoxychlor		X			X								
Toxaphene		X			X								
Semivolatile Organic Compounds													
1,2,4-Trichlorobenzene											X		
1,2-Dichlorobenzene								X			X		
1,4-Dichlorobenzene								X			X		
2,4-Dimethylphenol								X			X		
2-Methylnaphthalene			X			X		X			X		
2-Methylphenol								X			X		
Acenaphthene								X			X		
Acenaphthylene								X			X		
Anthracene					X						X		
Benzo(a)anthracene					X								
Benzo(k)fluoranthene									X			X	
Benzoic acid								X			X		
Benzyl alcohol								X			X		
Butylbenzylphthalate		X			X								
Di-n-butylphthalate		X			X								
Di-n-octylphthalate		X			X								
Dibenz(a,h)anthracene								X			X		
Diethylphthalate		X			X						X		
Dimethyl phthalate		X			X						X		
Fluorene								X			X		
Hexachlorobenzene		X			X			X			X		X

MD - Maximum detect exceeds screening value
MRL - Not detected; maximum reporting limit exceeds screening value
NSV - No screening value; detected in at least one sample

Table 6
Summary of COPCs - SWMU 25
NAS Oceana, Virginia Beach, VA

Chemical	Surface Water						Sediment						Food Web
	Flora			Fauna			Flora			Fauna			
	MD	MRL	NSV	MD	MRL	NSV	MD	MRL	NSV	MD	MRL	NSV	
Hexachlorobutadiene		X			X			X			X		
Hexachlorocyclopentadiene		X			X								
Naphthalene			X					X			X		
Pentachlorophenol		X			X			X			X		
Phenanthrene		X			X								
bis(2-Ethylhexyl)phthalate									X				
n-Nitrosodiphenylamine								X			X		
Volatile Organic Compounds													
Acetone			X						X			X	
Carbon disulfide					X								
Toluene			X										

MD - Maximum detect exceeds screening value
MRL - Not detected; maximum reporting limit exceeds screening value
NSV - No screening value; detected in at least one sample

Tabl

Raw Data - SWMU 2 ace Water

NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SW01		OW25-SW02	
Sample ID	OW25-SW01-93A		OW25-SW02-93A	
Sample Date	02/05/93		02/09/93	
Chemical Name				
Inorganics (UG/L)				
Aluminum	288	UJ	NA	
Antimony	16.4	U	16.4	U
Arsenic	0.88	J	1.20	J
Barium	38.5	J	38.2	J
Beryllium	0.26	U	0.26	U
Cadmium	2.80	U	2.80	U
Calcium	37,100		NA	
Chromium	2.80	U	2.80	U
Cobalt	2.60	U	2.60	U
Copper	2.70	UJ	2.90	UJ
Cyanide	NA		1.40	U
Iron	399	UJ	NA	
Lead	1.70	UJ	1.70	UJ
Magnesium	6,500		NA	
Manganese	29.7		NA	
Mercury	0.070	U	0.070	U
Nickel	13.7	UJ	9.40	U
Potassium	10,600		NA	
Selenium	1.80	R	1.80	R
Silver	2.00	U	2.00	U
Sodium	26,200		NA	
Thallium	2.30	U	2.30	U
Vanadium	2.60	U	2.60	U
Zinc	9.00	U	15.7	J
Pesticide/Polychlorinated Biphenyls (UG/L)				
4,4'-DDD	0.040	U	0.040	U
4,4'-DDE	0.020	U	0.020	U
4,4'-DDT	0.040	U	0.040	U
Aldrin	0.020	U	0.020	U
Aroclor-1016	1.00	U	1.00	U
Aroclor-1221	2.00	U	2.00	U
Aroclor-1232	2.00	U	2.00	U
Aroclor-1242	1.00	U	1.00	U
Aroclor-1248	1.00	U	1.00	U
Aroclor-1254	0.50	U	0.50	U
Aroclor-1260	0.50	U	0.50	U

NA - Not analyzed

BJ

J - Reported value is estimated

R - Unreliable result

Table
Raw Data - SWMU 25 ... ace Water
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SW01		OW25-SW02	
Sample ID	OW25-SW01-93A		OW25-SW02-93A	
Sample Date	02/05/93		02/09/93	
Chemical Name				
Chlordane	0.20	U	0.020	U
Dieldrin	0.020	U	0.020	U
Endosulfan I	0.020	U	0.020	U
Endosulfan II	0.040	U	0.040	U
Endosulfan sulfate	0.040	U	0.040	U
Endrin	0.040	U	0.040	U
Endrin aldehyde	0.040	U	0.040	U
Endrin ketone	0.020	U	0.020	U
Heptachlor	0.020	U	0.020	U
Heptachlor epoxide	0.020	U	0.020	U
Methoxychlor	0.080	U	0.080	U
Toxaphene	1.00	U	1.00	U
alpha-BHC	0.020	U	0.020	U
beta-BHC	0.040	U	0.040	U
delta-BHC	0.020	U	0.020	U
gamma-BHC (Lindane)	0.020	U	0.020	U
Semivolatile Organic Compounds (UG/L)				
1,2,4-Trichlorobenzene	10.0	U	10.0	U
1,2-Dichlorobenzene	10.0	U	10.0	U
1,2-Diphenylhydrazine	10.0	U	10.0	U
1,3-Dichlorobenzene	10.0	U	10.0	U
1,4-Dichlorobenzene	10.0	U	10.0	U
2,2'-Oxybis(1-chloropropane)	10.0	U	10.0	U
2,4,5-Trichlorophenol	50.0	U	50.0	U
2,4,6-Trichlorophenol	10.0	U	10.0	U
2,4-Dichlorophenol	10.0	U	10.0	U
2,4-Dimethylphenol	10.0	U	10.0	U
2,4-Dinitrophenol	50.0	U	50.0	U
2,4-Dinitrotoluene	10.0	U	10.0	U
2,6-Dinitrotoluene	10.0	U	10.0	U
2-Chloronaphthalene	10.0	U	10.0	U
2-Chlorophenol	10.0	U	10.0	U
2-Methylnaphthalene	6.00	J	10.0	U
2-Methylphenol	10.0	U	10.0	U
2-Nitroaniline	50.0	U	50.0	U
2-Nitrophenol	10.0	U	10.0	U
3,3'-Dichlorobenzidine	20.0	U	20.0	U
3-Nitroaniline	50.0	U	50.0	U

NA - Not analyzed
BJ
J - Reported value is estimated
R - Unreliable result

Table
Raw Data - SWMU 25 ace Water
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SW01		OW25-SW02	
Sample ID	OW25-SW01-93A		OW25-SW02-93A	
Sample Date	02/05/93		02/09/93	
Chemical Name				
4,6-Dinitro-2-methylphenol	50.0	U	50.0	U
4-Bromophenyl-phenylether	10.0	U	10.0	U
4-Chloro-3-methylphenol	10.0	U	10.0	U
4-Chloroaniline	10.0	U	10.0	U
4-Chlorophenyl-phenylether	10.0	U	10.0	U
4-Nitroaniline	50.0	U	50.0	U
4-Nitrophenol	50.0	U	50.0	U
Acenaphthene	10.0	U	10.0	U
Acenaphthylene	10.0	U	10.0	U
Aniline	10.0	U	10.0	U
Anthracene	10.0	U	10.0	U
Benzo(a)anthracene	10.0	U	10.0	U
Benzo(a)pyrene	10.0	U	10.0	U
Benzo(b)fluoranthene	10.0	U	10.0	U
Benzo(g,h,i)perylene	10.0	U	10.0	U
Benzo(k)fluoranthene	10.0	U	10.0	U
Benzoic acid	10.0	U	50.0	U
Benzyl alcohol	10.0	U	10.0	U
Butylbenzylphthalate	10.0	U	10.0	U
Chrysene	10.0	U	10.0	U
Di-n-butylphthalate	10.0	U	10.0	U
Di-n-octylphthalate	10.0	U	10.0	U
Dibenz(a,h)anthracene	10.0	U	10.0	U
Dibenzofuran	10.0	U	10.0	U
Diethylphthalate	10.0	U	10.0	U
Dimethyl phthalate	10.0	U	10.0	U
Fluoranthene	10.0	U	10.0	U
Fluorene	10.0	U	10.0	U
Hexachlorobenzene	10.0	U	10.0	U
Hexachlorobutadiene	10.0	U	10.0	U
Hexachlorocyclopentadiene	10.0	U	10.0	U
Hexachloroethane	10.0	U	10.0	U
Indeno(1,2,3-cd)pyrene	10.0	U	10.0	U
Isophorone	10.0	U	10.0	U
Naphthalene	3.00	J	10.0	U
Nitrobenzene	10.0	U	10.0	U
Pentachlorophenol	50.0	U	50.0	U
Phenanthrene	10.0	U	10.0	U
Phenol	10.0	U	10.0	U

NA - Not analyzed
BJ
J - Reported value is estimated
R - Unreliable result

Table
Raw Data - SWMU 25 .ace Water
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SW01		OW25-SW02	
Sample ID	OW25-SW01-93A		OW25-SW02-93A	
Sample Date	02/05/93		02/09/93	
Chemical Name				
Pyrene	10.0	U	10.0	U
bis(2-Chloroethoxy)methane	50.0	U	10.0	U
bis(2-Chloroethyl)ether	10.0	U	10.0	U
bis(2-Ethylhexyl)phthalate	10.0	U	2.00	J
n-Nitroso-di-n-propylamine	10.0	U	10.0	U
n-Nitrosodimethylamine	10.0	U	10.0	U
n-Nitrosodiphenylamine	10.0	U	10.0	U
Volatile Organic Compounds (UG/L)				
1,1,1-Trichloroethane	5.00	U	5.00	U
1,1,2,2-Tetrachloroethane	5.00	U	5.00	U
1,1,2-Trichloroethane	5.00	U	5.00	U
1,1-Dichloroethane	5.00	U	5.00	U
1,1-Dichloroethene	5.00	U	5.00	U
1,2,4-Trichlorobenzene	NA		5.00	U
1,2-Dibromo-3-chloropropane	NA		10.0	U
1,2-Dibromoethane	NA		5.00	U
1,2-Dichlorobenzene	5.00	U	5.00	U
1,2-Dichloroethane	5.00	U	5.00	U
1,2-Dichloroethene (total)	5.00	U	NA	
1,2-Dichloropropane	5.00	U	5.00	U
1,3-Dichlorobenzene	5.00	U	5.00	U
1,4-Dichlorobenzene	5.00	U	5.00	U
2-Butanone	10.0	U	10.0	U
2-Chloroethyl vinyl ether	10.0	U	NA	
2-Hexanone	10.0	U	10.0	U
4-Methyl-2-pentanone	10.0	U	5.00	U
Acetone	10.0	U	10.0	BJ
Benzene	5.00	U	5.00	U
Bromochloromethane	NA		5.00	U
Bromodichloromethane	5.00	U	5.00	U
Bromoform	5.00	U	5.00	U
Bromomethane	10.0	U	5.00	U
Carbon disulfide	5.00	U	5.00	U
Carbon tetrachloride	5.00	U	5.00	U
Chlorobenzene	5.00	U	5.00	U
Chloroethane	10.0	U	10.0	U
Chloroform	5.00	U	5.00	U
Chloromethane	10.0	U	5.00	U

NA - Not analyzed
BJ
J - Reported value is estimated
R - Unreliable result

Table
Raw Data - SWMU 25 .ace Water
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SW01		OW25-SW02	
Sample ID	OW25-SW01-93A		OW25-SW02-93A	
Sample Date	02/05/93		02/09/93	
Chemical Name				
Dibromochloromethane	5.00	U	5.00	U
Ethylbenzene	5.00	U	5.00	U
Methylene chloride	5.00	BJ	5.00	UJ
Styrene	5.00	U	5.00	U
Tetrachloroethene	5.00	U	5.00	U
Toluene	5.00	U	2.00	J
Trichloroethene	5.00	U	5.00	U
Trichlorofluoromethane(Freon-11)	5.00	U	NA	
Vinyl acetate	10.0	U	NA	
Vinyl chloride	2.00	U	2.00	U
Xylene, total	5.00	U	5.00	U
cis-1,2-Dichloroethene	NA		5.00	U
cis-1,3-Dichloropropene	5.00	U	5.00	U
trans-1,2-Dichloroethene	NA		5.00	U
trans-1,3-Dichloropropene	5.00	U	5.00	U

NA - Not analyzed
BJ
J - Reported value is estimated
R - Unreliable result

Table
Raw Data - SWMU . .diment
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SD01	OW25-SD02	OW25-SD03	OW25-SD04	OW25-SD05	OW25-SD06		
Sample ID	OW25-SD01-93A	OW25-SD02-93A	OW25-SD03-93A	OW25-SD04-94A	OW25-SD05-94A	OW25-SD40-94A	OW25-SD06-94A	OW25-SD06P
Sample Date	02/08/93	02/04/93	02/06/93	02/09/94	02/09/94	02/09/94	02/09/94	12/01/97
Chemical Name								
Inorganics (MG/KG)								
Aluminum	4,230	NA	2,270	11,100	11,000	19,000	11,200	NA
Antimony	4.50 U	3.90 UJ	3.80 U	4.10 U	3.60 U	2.90 U	3.10 U	NA
Arsenic	1.65 B	0.91 J	1.00 B	1.50 B	2.00 B	2.00 B	1.70 B	NA
Barium	17.7 B	17.4 J	7.50 B	98.8	52.5 B	56.0	37.9 B	NA
Beryllium	1.14 B	0.17 J	0.070 B	0.48 B	0.32 B	0.28 B	0.17 B	NA
Cadmium	1.30	0.65 U	0.65 U	1.10 U	1.00 U	0.80 U	0.85 U	NA
Calcium	689 B	NA	73.2 B	3,900	2,270	730 B	789 B	NA
Chromium	6.00	4.30	3.90	10.2	12.2	21.4	12.5	NA
Cobalt	0.75 U	1.20 J	0.86 B	1.90 B	1.60 B	3.00 B	1.00 B	NA
Copper	746	2.10 UJ	1.20 B	7.60 B	8.50	8.50	6.10 B	NA
Cyanide	NA	0.080 U	NA	NA	NA	NA	NA	NA
Iron	2,200	NA	1,240	5,000	4,580	7,780	4,580	NA
Lead	3.70	7.20	2.40	19.8	21.7	9.00	8.20	NA
Magnesium	376 B	NA	2.05 B	873 B	712 B	1,400	863 B	NA
Manganese	15.0	NA	8.10	168	43.0	29.8	19.1	NA
Mercury	0.070 U	0.030 U	0.030 U	0.060 B	0.050 U	0.030 U	0.040 U	NA
Nickel	4.70 B	2.20 U	2.20 U	5.20 B	4.70 B	7.00 B	5.10 B	NA
Potassium	295 B	NA	218 U	572 U	399 B	654 B	389 B	NA
Selenium	0.45 B	0.44 U	0.43 U	0.55 U	0.49 U	0.39 U	0.41 U	NA
Silver	0.31 U	0.47 U	0.47 U	0.93 U	0.82 U	0.66 U	0.69 U	NA
Sodium	4,610	NA	152 B	187 B	125 B	136 B	120 B	NA
Thallium	0.42 U	0.55 U	0.54 U	0.48 U	0.42 U	0.34 U	0.36 U	NA
Vanadium	6.90 B	5.70 J	3.70 B	14.6 B	15.6 B	32.7	18.2	NA
Zinc	723	9.00 UJ	4.90	48.1	65.1	17.8	27.6	NA
Pesticide/Polychlorinated Biphenyls (UG/KG)								
4,4'-DDD	16.0 U	7.70 U	1.50 U	2.70 U	14.0	1.80 U	1.80 U	37.0 U
4,4'-DDE	27.0	4.00 U	0.80 U	1.40 U	14.0	0.90 U	0.90 U	37.0 U
4,4'-DDT	25.0	7.70 U	1.50 U	2.70 U	7.50	1.80 U	1.80 U	37.0 U
Aldrin	8.40 U	4.00 U	0.80 U	1.40 U	1.20 U	0.90 U	0.90 U	19.0 U
Aroclor-1016	410 U	200 U	39.0 U	NA	NA	NA	NA	NA
Aroclor-1221	840 U	400 U	80.0 U	NA	NA	NA	NA	NA
Aroclor-1232	840 U	400 U	80.0 U	NA	NA	NA	NA	NA
Aroclor-1242	410 U	200 U	39.0 U	NA	NA	NA	NA	NA
Aroclor-1248	410 U	200 U	39.0 U	NA	NA	NA	NA	NA
Aroclor-1254	210 U	100 U	20.0 U	NA	NA	NA	NA	NA
Aroclor-1260	210 U	100 U	20.0 U	NA	NA	NA	NA	NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected
UJ - Not detected, quantitation limit may be inaccurate

Tabl

Raw Data - SWMU . ediment

NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SD01		OW25-SD02		OW25-SD03		OW25-SD04		OW25-SD05		OW25-SD06					
Sample ID	OW25-SD01-93A		OW25-SD02-93A		OW25-SD03-93A		OW25-SD04-94A		OW25-SD05-94A		OW25-SD40-94A		OW25-SD06-94A		OW25-SD06P	
Sample Date	02/08/93		02/04/93		02/06/93		02/09/94		02/09/94		02/09/94		02/09/94		12/01/97	
Chemical Name																
Chlordane	84.0	U	40.0	U	8.00	U	14.0	U	12.0	U	9.00	U	9.00	U	NA	
Dieldrin	56.0		4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	37.0	U
Endosulfan I	8.40	U	4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	19.0	U
Endosulfan II	16.0	U	7.70	U	1.50	U	2.70	U	2.20	U	1.80	U	1.80	U	37.0	U
Endosulfan sulfate	16.0	U	7.70	U	1.50	U	2.70	U	2.20	U	1.80	U	1.80	U	37.0	U
Endrin	16.0	U	7.70	U	1.50	U	2.70	U	2.20	U	1.80	U	1.80	U	37.0	U
Endrin aldehyde	16.0	U	7.70	U	1.50	U	2.70	U	2.20	U	1.80	U	1.80	U	37.0	U
Endrin ketone	16.0	U	7.70	U	NA		NA		NA		NA		NA		37.0	U
Heptachlor	8.40	U	4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	19.0	U
Heptachlor epoxide	8.40	U	4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	19.0	U
Methoxychlor	34.0	U	16.0	U	3.20	U	5.60	U	4.60	U	3.60	U	3.60	U	190	U
Toxaphene	410	U	200	U	39.0	U	69.0	U	57.0	U	44.0	U	44.0	U	930	U
alpha-BHC	8.40	U	4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	19.0	U
alpha-Chlordane	NA		NA		NA		NA		NA		NA		NA		19.0	U
beta-BHC	16.0	U	7.70	U	1.50	U	2.70	U	2.20	U	1.80	U	1.80	U	19.0	U
delta-BHC	8.40	U	4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	19.0	U
gamma-BHC (Lindane)	8.40	U	4.00	U	0.80	U	1.40	U	1.20	U	0.90	U	0.90	U	19.0	U
gamma-Chlordane	NA		NA		NA		NA		NA		NA		NA		19.0	U
Semivolatile Organic Compounds (UG/KG)																
1,2,4-Trichlorobenzene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
1,2-Dichlorobenzene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
1,2-Diphenylhydrazine	410	U	400	U	390	U	NA		NA		NA		NA		NA	
1,3-Dichlorobenzene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
1,4-Dichlorobenzene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2,2'-Oxybis(1-chloropropane)	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2,4,5-Trichlorophenol	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA	
2,4,6-Trichlorophenol	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2,4-Dichlorophenol	NA		400	U	NA		NA		NA		NA		NA		NA	
2,4-Dimethylphenol	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2,4-Dinitrophenol	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA	
2,4-Dinitrotoluene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2,6-Dinitrotoluene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2-Chloronaphthalene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2-Chlorophenol	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2-Methylnaphthalene	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2-Methylphenol	410	U	400	U	390	U	NA		NA		NA		NA		NA	
2-Nitroaniline	2,000	U	1,900	U	390	U	NA		NA		NA		NA		NA	
2-Nitrophenol	410	U	400	U	390	U	NA		NA		NA		NA		NA	

NA - Not analyzed

B - Analyte not detected above associated blank

BJ

J - Reported value is estimated

U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

Table
Raw Data - SWMU . ediment
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SD01		OW25-SD02		OW25-SD03		OW25-SD04		OW25-SD05		OW25-SD06				
Sample ID	OW25-SD01-93A		OW25-SD02-93A		OW25-SD03-93A		OW25-SD04-94A		OW25-SD05-94A		OW25-SD40-94A		OW25-SD06-94A		OW25-SD06P
Sample Date	02/08/93		02/04/93		02/06/93		02/09/94		02/09/94		02/09/94		02/09/94		12/01/97
Chemical Name															
2-Picoline	410	U	NA		390	U	NA		NA		NA		NA		NA
3,3'-Dichlorobenzidine	820	U	800	U	790	U	NA		NA		NA		NA		NA
3-Nitroaniline	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA
4,6-Dinitro-2-methylphenol	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA
4-Bromophenyl-phenylether	410	U	400	U	390	U	NA		NA		NA		NA		NA
4-Chloro-3-methylphenol	410	U	400	U	390	U	NA		NA		NA		NA		NA
4-Chloroaniline	410	U	400	U	390	U	NA		NA		NA		NA		NA
4-Chlorophenyl-phenylether	410	U	400	U	390	U	NA		NA		NA		NA		NA
4-Methylphenol	410	U	NA		390	U	NA		NA		NA		NA		NA
4-Nitroaniline	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA
4-Nitrophenol	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA
Acenaphthene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Acenaphthylene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Aniline	410	U	400	U	390	U	NA		NA		NA		NA		NA
Anthracene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Benzo(a)anthracene	75.0	J	400	U	390	U	NA		NA		NA		NA		NA
Benzo(a)pyrene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Benzo(b)fluoranthene	97.0	J	43.0	J	390	U	NA		NA		NA		NA		NA
Benzo(g,h,i)perylene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Benzo(k)fluoranthene	88.0	J	400	U	390	U	NA		NA		NA		NA		NA
Benzoic acid	2,000	U	1,900	U	1,900	U	NA		NA		NA		NA		NA
Benzyl alcohol	410	U	400	U	390	U	NA		NA		NA		NA		NA
Butylbenzylphthalate	410	U	400	U	390	U	NA		NA		NA		NA		NA
Chrysene	120	J	400	U	390	U	NA		NA		NA		NA		NA
Di-n-butylphthalate	410	BJ	400	BJ	52.0	BJ	NA		NA		NA		NA		NA
Di-n-octylphthalate	410	U	400	U	390	U	NA		NA		NA		NA		NA
Dibenz(a,h)anthracene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Dibenzofuran	410	U	400	U	390	U	NA		NA		NA		NA		NA
Diethylphthalate	410	U	400	U	390	U	NA		NA		NA		NA		NA
Dimethyl phthalate	410	U	400	U	390	U	NA		NA		NA		NA		NA
Fluoranthene	89.0	J	120	J	390	U	NA		NA		NA		NA		NA
Fluorene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Hexachlorobenzene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Hexachlorobutadiene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Hexachlorocyclopentadiene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Hexachloroethane	410	U	400	U	390	U	NA		NA		NA		NA		NA
Indeno(1,2,3-cd)pyrene	410	U	400	U	390	U	NA		NA		NA		NA		NA
Isophorone	410	U	400	U	390	U	NA		NA		NA		NA		NA
Naphthalene	410	U	400	U	390	U	NA		NA		NA		NA		NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected
UJ - Not detected, quantitation limit may be inaccurate

Table
Raw Data - SWMU . ediment
NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SD01	OW25-SD02	OW25-SD03	OW25-SD04	OW25-SD05	OW25-SD06		
Sample ID	OW25-SD01-93A	OW25-SD02-93A	OW25-SD03-93A	OW25-SD04-94A	OW25-SD05-94A	OW25-SD40-94A	OW25-SD06-94A	OW25-SD06P
Sample Date	02/08/93	02/04/93	02/06/93	02/09/94	02/09/94	02/09/94	02/09/94	12/01/97
Chemical Name								
Nitrobenzene	410 U	400 U	390 U	NA	NA	NA	NA	NA
Pentachlorophenol	2,000 U	1,900 U	1,900 U	NA	NA	NA	NA	NA
Phenanthrene	410 U	93.0 J	390 U	NA	NA	NA	NA	NA
Phenol	410 U	400 U	390 U	NA	NA	NA	NA	NA
Pyrene	110 J	110 J	390 U	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	410 U	400 U	390 U	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	410 U	400 U	390 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	55.0 J	400 U	390 U	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	410 U	400 U	390 U	NA	NA	NA	NA	NA
n-Nitrosodimethylamine	410 U	400 U	390 U	NA	NA	NA	NA	NA
n-Nitrosodiphenylamine	410 U	400 U	390 U	NA	NA	NA	NA	NA
Volatile Organic Compounds (UG/KG)								
1,1,1-Trichloroethane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,2-Dichloropropane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
2-Butanone	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA
2-Hexanone	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA
Acetone	12.0 J	39.0 UJ	20.0	NA	NA	NA	NA	NA
Benzene	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Bromodichloromethane	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Bromoform	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Bromomethane	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA
Carbon disulfide	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Carbon tetrachloride	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Chlorobenzene	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Chloroethane	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA
Chloroform	6.00 U	6.00 U	6.00 U	NA	NA	NA	NA	NA
Chloromethane	12.0 U	12.0 U	12.0 U	NA	NA	NA	NA	NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

Tabl

Raw Data - SWMU . ediment

NAS Oceana, Virginia Beach, Virginia

Station ID	OW25-SD01		OW25-SD02		OW25-SD03		OW25-SD04	OW25-SD05	OW25-SD06		
Sample ID	OW25-SD01-93A		OW25-SD02-93A		OW25-SD03-93A		OW25-SD04-94A	OW25-SD05-94A	OW25-SD40-94A	OW25-SD06-94A	OW25-SD06P
Sample Date	02/08/93		02/04/93		02/06/93		02/09/94	02/09/94	02/09/94	02/09/94	12/01/97
Chemical Name											
Dibromochloromethane	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Dichlorodifluoromethane(Freon-12)	NA		12.0	U	NA		NA	NA	NA	NA	NA
Ethylbenzene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Methylene chloride	12.0	UJ	10.0	UJ	18.0	B	NA	NA	NA	NA	NA
Styrene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Tetrachloroethene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Toluene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Trichloroethene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Trichlorofluoromethane(Freon-11)	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Vinyl acetate	12.0	U	12.0	U	12.0	U	NA	NA	NA	NA	NA
Vinyl chloride	2.00	U	2.00	U	2.00	U	NA	NA	NA	NA	NA
Xylene, total	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	6.00	U	6.00	U	6.00	U	NA	NA	NA	NA	NA
Other Parameters (MG/KG)											
% Solids	NA		NA		NA		NA	NA	NA	NA	NA
Carbon	NA		NA		NA		NA	NA	NA	NA	NA
Total organic carbon (TOC)	NA		NA		NA		44,400	38,900	4,150	5,160	NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

Table
Raw Data - SWMU ediment
NAS Oceana, Virginia Beach, Virginia

Station ID			OW25-SD07		OW25-SD08	
Sample ID	OW25-SD06		OW25-SD07		OW25-SD08	
Sample Date	12/01/97		12/01/97		12/01/97	
Chemical Name						
Inorganics (MG/KG)						
Aluminum	NA		NA		NA	
Antimony	NA		NA		NA	
Arsenic	NA		NA		NA	
Barium	NA		NA		NA	
Beryllium	NA		NA		NA	
Cadmium	NA		NA		NA	
Calcium	NA		NA		NA	
Chromium	NA		NA		NA	
Cobalt	NA		NA		NA	
Copper	NA		NA		NA	
Cyanide	NA		NA		NA	
Iron	NA		NA		NA	
Lead	NA		NA		NA	
Magnesium	NA		NA		NA	
Manganese	NA		NA		NA	
Mercury	NA		NA		NA	
Nickel	NA		NA		NA	
Potassium	NA		NA		NA	
Selenium	NA		NA		NA	
Silver	NA		NA		NA	
Sodium	NA		NA		NA	
Thallium	NA		NA		NA	
Vanadium	NA		NA		NA	
Zinc	NA		NA		NA	
Pesticide/Polychlorinated Biphenyls (UG/KG)						
4,4'-DDD	34.0	U	25.0	U	23.0	U
4,4'-DDE	34.0	U	25.0	U	23.0	U
4,4'-DDT	34.0	U	25.0	U	23.0	U
Aldrin	17.0	U	13.0	U	12.0	U
Aroclor-1016	NA		NA		NA	
Aroclor-1221	NA		NA		NA	
Aroclor-1232	NA		NA		NA	
Aroclor-1242	NA		NA		NA	
Aroclor-1248	NA		NA		NA	
Aroclor-1254	NA		NA		NA	
Aroclor-1260	NA		NA		NA	

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

Table
Raw Data - SWMU ediment
NAS Oceana, Virginia Beach, Virginia

Station ID			OW25-SD07		OW25-SD08	
Sample ID	OW25-SD06		OW25-SD07		OW25-SD08	
Sample Date	12/01/97		12/01/97		12/01/97	
Chemical Name						
Chlordane	NA		NA		NA	
Dieldrin	34.0	U	25.0	U	23.0	U
Endosulfan I	17.0	U	13.0	U	12.0	U
Endosulfan II	34.0	U	25.0	U	23.0	U
Endosulfan sulfate	34.0	U	25.0	U	23.0	U
Endrin	34.0	U	25.0	U	23.0	U
Endrin aldehyde	34.0	U	25.0	U	23.0	U
Endrin ketone	34.0	U	25.0	U	23.0	U
Heptachlor	17.0	U	13.0	U	12.0	U
Heptachlor epoxide	17.0	U	13.0	U	12.0	U
Methoxychlor	170	U	130	U	120	U
Toxaphene	840	U	620	U	580	U
alpha-BHC	17.0	U	13.0	U	12.0	U
alpha-Chlordane	17.0	U	13.0	U	12.0	U
beta-BHC	17.0	U	13.0	U	12.0	U
delta-BHC	17.0	U	13.0	U	12.0	U
gamma-BHC (Lindane)	17.0	U	13.0	U	12.0	U
gamma-Chlordane	17.0	U	13.0	U	12.0	U
Semivolatile Organic Compounds (UG/KG)						
1,2,4-Trichlorobenzene	NA		NA		NA	
1,2-Dichlorobenzene	NA		NA		NA	
1,2-Diphenylhydrazine	NA		NA		NA	
1,3-Dichlorobenzene	NA		NA		NA	
1,4-Dichlorobenzene	NA		NA		NA	
2,2'-Oxybis(1-chloropropane)	NA		NA		NA	
2,4,5-Trichlorophenol	NA		NA		NA	
2,4,6-Trichlorophenol	NA		NA		NA	
2,4-Dichlorophenol	NA		NA		NA	
2,4-Dimethylphenol	NA		NA		NA	
2,4-Dinitrophenol	NA		NA		NA	
2,4-Dinitrotoluene	NA		NA		NA	
2,6-Dinitrotoluene	NA		NA		NA	
2-Chloronaphthalene	NA		NA		NA	
2-Chlorophenol	NA		NA		NA	
2-Methylnaphthalene	NA		NA		NA	
2-Methylphenol	NA		NA		NA	
2-Nitroaniline	NA		NA		NA	
2-Nitrophenol	NA		NA		NA	

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

Table
Raw Data - SWMU . .diment
NAS Oceana, Virginia Beach, Virginia

Station ID		OW25-SD07	OW25-SD08
Sample ID	OW25-SD06	OW25-SD07	OW25-SD08
Sample Date	12/01/97	12/01/97	12/01/97
Chemical Name			
2-Picoline	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA
3-Nitroaniline	NA	NA	NA
4,6-Dinitro-2-methylphenol	NA	NA	NA
4-Bromophenyl-phenylether	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA
4-Chloroaniline	NA	NA	NA
4-Chlorophenyl-phenylether	NA	NA	NA
4-Methylphenol	NA	NA	NA
4-Nitroaniline	NA	NA	NA
4-Nitrophenol	NA	NA	NA
Acenaphthene	NA	NA	NA
Acenaphthylene	NA	NA	NA
Aniline	NA	NA	NA
Anthracene	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA
Benzoic acid	NA	NA	NA
Benzyl alcohol	NA	NA	NA
Butylbenzylphthalate	NA	NA	NA
Chrysene	NA	NA	NA
Di-n-butylphthalate	NA	NA	NA
Di-n-octylphthalate	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA
Dibenzofuran	NA	NA	NA
Diethylphthalate	NA	NA	NA
Dimethyl phthalate	NA	NA	NA
Fluoranthene	NA	NA	NA
Fluorene	NA	NA	NA
Hexachlorobenzene	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA
Hexachloroethane	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA
Isophorone	NA	NA	NA
Naphthalene	NA	NA	NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

Table
Raw Data - SWMU [illegible] ediment
NAS Oceana, Virginia Beach, Virginia

Station ID		OW25-SD07	OW25-SD08
Sample ID	OW25-SD06	OW25-SD07	OW25-SD08
Sample Date	12/01/97	12/01/97	12/01/97
Chemical Name			
Nitrobenzene	NA	NA	NA
Pentachlorophenol	NA	NA	NA
Phenanthrene	NA	NA	NA
Phenol	NA	NA	NA
Pyrene	NA	NA	NA
bis(2-Chloroethoxy)methane	NA	NA	NA
bis(2-Chloroethyl)ether	NA	NA	NA
bis(2-Ethylhexyl)phthalate	NA	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA
n-Nitrosodimethylamine	NA	NA	NA
n-Nitrosodiphenylamine	NA	NA	NA
Volatile Organic Compounds (UG/KG)			
1,1,1-Trichloroethane	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,2-Dichloroethene (total)	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
2-Butanone	NA	NA	NA
2-Chloroethyl vinyl ether	NA	NA	NA
2-Hexanone	NA	NA	NA
4-Methyl-2-pentanone	NA	NA	NA
Acetone	NA	NA	NA
Benzene	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromoform	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon disulfide	NA	NA	NA
Carbon tetrachloride	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloroethane	NA	NA	NA
Chloroform	NA	NA	NA
Chloromethane	NA	NA	NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

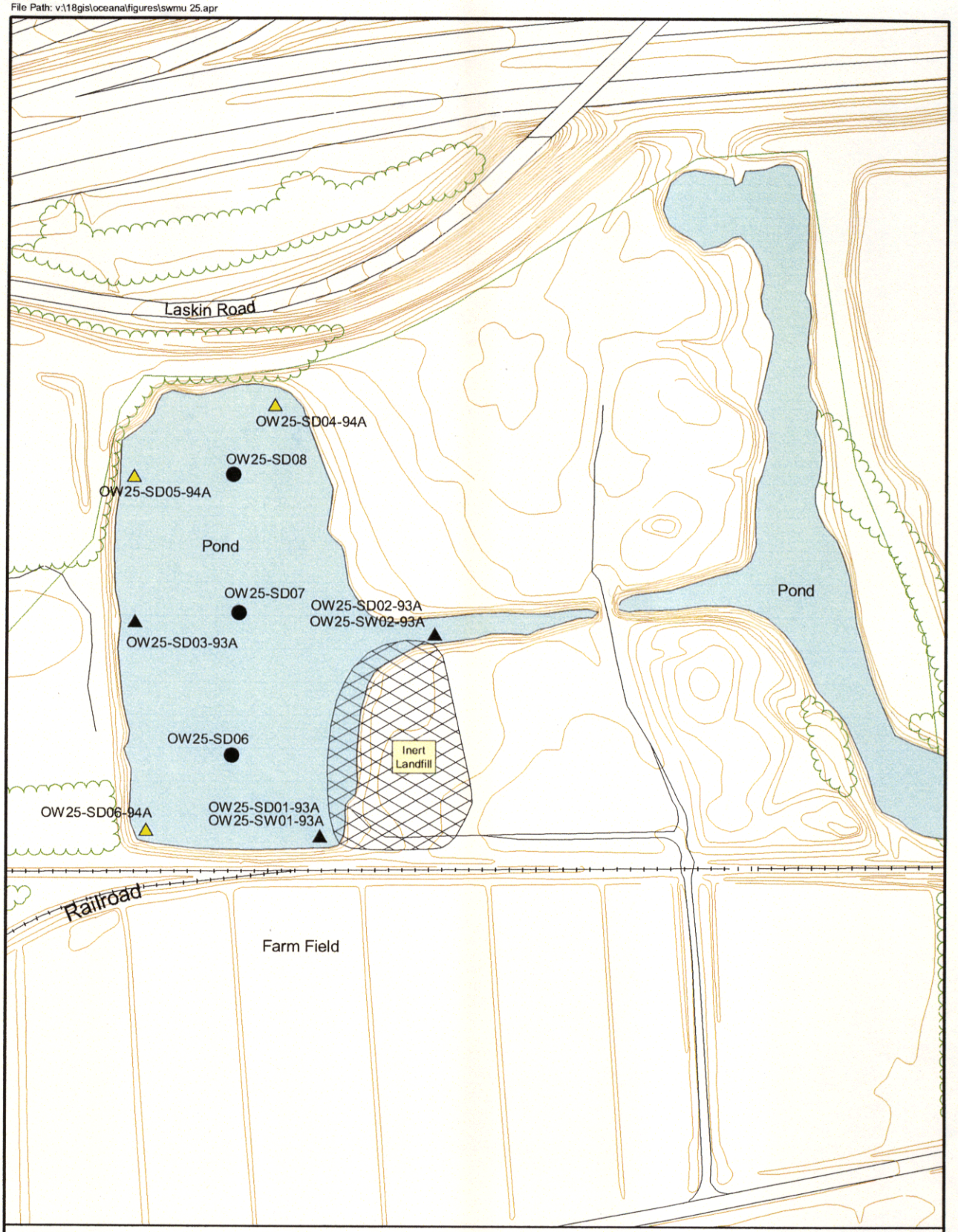
Table
Raw Data - SWMU . ediment
NAS Oceana, Virginia Beach, Virginia

Station ID		OW25-SD07	OW25-SD08
Sample ID	OW25-SD06	OW25-SD07	OW25-SD08
Sample Date	12/01/97	12/01/97	12/01/97
Chemical Name			
Dibromochloromethane	NA	NA	NA
Dichlorodifluoromethane(Freon-12)	NA	NA	NA
Ethylbenzene	NA	NA	NA
Methylene chloride	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Toluene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane(Freon-11)	NA	NA	NA
Vinyl acetate	NA	NA	NA
Vinyl chloride	NA	NA	NA
Xylene, total	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA
Other Parameters (MG/KG)			
% Solids	NA	66.4	71.9
Carbon	11,000	5,100	1,500
Total organic carbon (TOC)	NA	NA	NA

NA - Not analyzed
B - Analyte not detected above associated blank
BJ
J - Reported value is estimated
U - Analyte not detected

UJ - Not detected, quantitation limit may be inaccurate

File Path: v:\18gis\oceana\figures\swmu 25.apr



LEGEND

- Phase III Sediment Sampling Location
- Phase I Sampling Location
- Phase II Sediment Sampling Location
- Approximate Landfill Boundary

N

0 100 200 300 Feet

Figure 1
SWMU 25 Sample Locations
NAS Oceana
Virginia Beach, Virginia

CH2MHILL

00583 F 01y